

310 CMR 40.0000: MASSACHUSETTS CONTINGENCY PLAN

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SUBPART P: MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST

40.1600: Massachusetts Oil and Hazardous Material List

SUBPART A: GENERAL PROVISIONS

40.0001: Authority

310 CMR 40.0001 through 40.9999, cited collectively as 310 CMR 40.0000, are promulgated by the Commissioner of the Department of Environmental Protection under M.G.L. c. 21E, §§ 3(c), 3(d), 3(e), 3A(d), 3A(f), 3A(g), 3A(m), 3B, 5A, 6, 7 and 14, and M.G.L. c. 21A, § 2(28), M.G.L. c. 21C and M.G.L. c. 111, § 160. 310 CMR 40.0000 collectively comprises the Massachusetts Contingency Plan (the "MCP").

40.0002: Purpose

- (1) The purposes of the Massachusetts Contingency Plan are, without limitation, to:
 - (a) provide for the protection of health, safety, public welfare and the environment by establishing requirements and procedures for the following:
 1. the prevention and control of activities which may cause, contribute to, or exacerbate a release or threat of release of oil and/or hazardous material;
 2. notification of the Department in the event of certain releases or threats of release of oil and/or hazardous material;
 3. assessment of the nature and extent of contamination and any threat to health, safety, public welfare or the environment caused by a release or threat of release of oil and/or hazardous material;
 4. the evaluation of alternatives for remedial actions to abate, prevent, remedy or otherwise respond to a release or threat of release of oil and/or hazardous material;
 5. the implementation of appropriate remedial actions to abate, prevent, remedy or otherwise respond to a release or threat of release of oil and/or hazardous material;
 6. public involvement in decisions regarding response actions at disposal sites; and
 7. the recovery of Costs incurred by the Commonwealth in responding to releases or threats of release of oil and/or hazardous material.
 - (b) encourage persons responsible for releases and threats of release of oil and/or hazardous material to undertake necessary and appropriate response actions in a timely way;
 - (c) focus government resources on those sites at which the person(s) responsible cannot or will not undertake necessary response actions;
 - (d) focus government resources on those sites at which Department oversight is necessary to ensure that response actions are protective of health, safety, public welfare and the environment;
; and
 - (e) establish a program for the Department to audit a sufficient number of response actions not overseen or conducted by the Department to ensure that those response actions are performed in compliance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable laws.
- (2) The MCP identifies those oils and hazardous materials which are subject to the requirements and procedures set forth in 310 CMR 40.0000.
- (3) The MCP prescribes the respective roles and responsibilities of the Department, other governmental agencies, Responsible Parties, Potentially Responsible Parties, Licensed Site Professionals, Other Persons, and the public in response actions.

40.0002: continued

(4) The MCP is intended to comport with and complement the National Contingency Plan promulgated by the United States Environmental Protection Agency under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

(5) Except with respect to 310 CMR 40.1200, the MCP does not address the Commonwealth's recovery of damages associated with injury to, destruction of, or loss of use of natural resources or the costs of assessing those damages.

40.0003: Applicability

(1) The MCP applies to any person required by M.G.L. c. 21E to notify the Department of a release or threat of release of oil and/or hazardous material and/or to perform one or more response actions at any site in Massachusetts without regard to the level of Department oversight, if any, of response actions at the site.

(2) The MCP also applies to any other person who takes one or more response actions with respect to a site from or at which a release of oil and/or hazardous material has occurred or where a threat of release of oil and/or hazardous material exists.

40.0005: Effective Dates

(1) 310 CMR 40.0000, as published on January 13, 1995, shall take effect on February 1, 1995, except for 310 CMR 40.0180 which shall take effect on February 24, 1995. 310 CMR 40.0000, as effective prior to February 1, 1995, became effective on October 1, 1993, except for 310 CMR 40.0168 and 310 CMR 40.0600, which became effective on August 2, 1993.

(2) Except as provided by 310 CMR 40.0600, response actions which were approved by the Department:

(a) prior to July 20, 1992, and on or after October 3, 1988, shall be completed in a manner consistent with such approval and in accordance with 310 CMR 40.000, as effective prior to October 1, 1993, and M.G.L. c. 21E, as amended prior to July 20, 1992, and

(b) prior to October 1, 1993, and on or after July 20, 1992, shall be completed in a manner consistent with such approval and in accordance with 310 CMR 40.000, as effective prior to October 1, 1993, and M.G.L. c. 21E, as amended on July 20, 1992. 310 CMR 40.000 became effective on October 3, 1988, with the exception of 310 CMR 40.300 through 310 CMR 40.379 which became effective on August 31, 1988.

Copies of 310 CMR 40.000, as effective prior to October 1, 1993 (*i.e.* the 1988 Massachusetts Contingency Plan), may be obtained upon request from the Department for a nominal fee.

(3) Except as provided by 310 CMR 40.0600, response actions which were approved by the Department prior to October 3, 1988, shall be completed in a manner consistent with such approval and M.G.L. c. 21E, as amended prior to July 20, 1992.

(4) 310 CMR 40.0000 as published May 30, 1997, shall take effect May 30, 1997.

(5) 310 CMR 40.0000 as published March 24, 2006 shall take effect April 3, 2006, except as provided in 310 CMR 40.0027 regarding the electronic submittal of Remedial Monitoring Reports.

(6) 310 CMR 40.0000 as published December 14, 2007 shall take effect February 14, 2008, except for 310 CMR 40.0570 which shall take effect on December 14, 2007.

(7) Except as provided by 310 CMR 40.0005(8) through (10), 310 CMR 40.0000 as published April 25, 2014 shall take effect on June 20, 2014.

(8) The Reportable Concentrations for Oil and Hazardous Material in groundwater or soil listed in the Massachusetts Oil and Hazardous Material List at 310 CMR 40.1600 as published April 25, 2014, shall take effect on April 25, 2014.

40.0005: continued

(9) The elimination of the requirement to submit an initial Tier I Permit Application, formerly 310 CMR 40.0704, from 310 CMR 40.0000, as published on April 25, 2014, shall take effect on April 25, 2014.

(10) RPs, PRPs or Other Persons may conduct an initial Tier Classification of a disposal site in accordance with the Tier Classification Process and Basis for Tier Classification in 310 CMR 40.0510 and 40.0520, respectively, as published April 25, 2014.

(11) Except as provided by 310 CMR 40.0005(12), 310 CMR 40.0000 as published [insert publication date] shall take effect on [insert date two months after publication date].

(12) The Reportable Concentrations for Oil and Hazardous Material in groundwater or soil listed in the Massachusetts Oil and Hazardous Material List at 310 CMR 40.1600 as published [insert publication date], shall take effect on [insert publication date].

40.0006: Terminology, Definitions and Acronyms

(1) The definitions of the terms "site," "disposal site," "vessel," "release" and "threat of release" contained in M.G.L. 21E and this Contingency Plan display subtle differences. These terms are used in this Contingency Plan as follows:

- (a) the terms "site" and "vessel" are used to refer to a place or area from or at which a release of oil and/or hazardous material has occurred or where a threat of release exists;
- (b) the term "disposal site" is used to refer to a place or area where an uncontrolled release of oil and/or hazardous material from or at a site or vessel has come to be located.

(2) The definitions of the terms "response action," "remedial action," "Comprehensive Response Action," "Comprehensive Remedial Action," and "Preliminary Response Action" contained in this Contingency Plan have specific meanings. These terms are used in this Contingency Plan as follows:

- (a) the term "response action" is a broad term used to refer to assessments, containments and/or removals;
- (b) the term "remedial action" is a subset of "response actions" and is used to refer to containments and/or removals only, and excludes assessments;
- (c) the term "Comprehensive Response Action" is a subset of "response actions" and is used to refer to response actions performed in accordance with 310 CMR 40.0800;
- (d) the term "Comprehensive Remedial Action" is a subset of "Comprehensive Response Actions" and is used to refer to only remedial actions performed in accordance with 310 CMR 40.0800, and excludes assessments; and
- (e) the term "Preliminary Response Action" is a subset of "response actions" and is used to refer to Initial Site Investigation Activities performed in accordance with 310 CMR 40.0405(1), and to Immediate Response Actions performed in accordance with 310 CMR 40.0410, and Release Abatement Measures performed in accordance with 310 CMR 40.0440 when such actions are performed prior to the initiation of Comprehensive Response Actions.

The terms "Comprehensive Response Action," "Comprehensive Remedial Action," and "Preliminary Response Action" are more specific terms than the terms "response action" and "remedial action," respectively, and shall not be construed to limit any application of the latter terms.

(3) For purposes of 310 CMR 40.0000, the terms "priority disposal site," "Location To Be Investigated," and "non-priority disposal site" shall have the meaning ascribed to them by 310 CMR 40.020, prior to October 1, 1993.

(4) For purposes of 310 CMR 40.0000, the terms "undertaking," "conducting" and "performing" are used to refer to the undertaking, conducting and performing of response actions by RPs, PRPs or Other Persons, as applicable. Such persons may be required to engage or employ an LSP to provide Professional Services with respect to such response actions.

(5) For purposes of 310 CMR 40.0000, the following words and phrases shall have the meaning ascribed to them by M.G.L. c. 21E, § 2, unless the context clearly indicates otherwise: fiduciary, owner, operator and secured lender.

(6) For purposes of 310 CMR 40.0000, the term "Solid Waste Management Facility" shall have the meaning ascribed to such term by 310 CMR 19.006: Solid Waste Management Facility.

40.0006: continued

(7) For purposes of 310 CMR 40.0000, the term "21C Facility" shall mean a hazardous waste management facility:

- (a) for which a currently valid license has been issued pursuant to 310 CMR 30.800: *Licensing Requirements and Procedures*; or
- (b) that is a "facility having interim status pursuant to RCRA," as defined in 310 CMR 30.010: *Definitions*, and is in compliance with 310 CMR 30.099(6).

(8) For purposes of 310 CMR 40.0000, the term "21C Corrective Action" shall mean the closure of a 21C Facility pursuant to 310 CMR 30.580: *Closure* through 310 CMR 30.589, the post-closure care of a RCRA Facility pursuant to 310 CMR 30.590: *Post-closure* through 310 CMR 30.599, and any other response action at a RCRA Facility required by M.G.L. c. 21C and/or 310 CMR 30.000: *Hazardous Waste*.

(9) For purposes of 310 CMR 40.0000, the term "HSWA Facility" shall mean:

- (a) a 21C Facility, and
- (b) a landfill, surface impoundment or waste pile unit, as such terms are defined in 40 Code of Federal Regulations § 260.10; provided such 21C Facility or landfill, surface impoundment or waste pile unit for which there exists a currently valid license, permit, approval or order issued pursuant to 42 U.S.C. §§ 6928(a), 6928(h), 6924(u) or 6924(v).

(10) For purposes of 310 CMR 40.0000 the term "HSWA Corrective Action" shall mean corrective actions for a HSWA Facility required by a license, permit, approval or order issued pursuant to 42 U.S.C. §§ 6928(a), 6928(h), 6924(u) or 6924(v).

(11) For purposes of 310 CMR 40.0000, the terms "sewer system", "NPDES", "Publicly Owned Treatment Works", "POTW", "outlet", and "effluent" shall have the meaning ascribed to such terms by 314 CMR 3.00, the Massachusetts Surface Water Discharge Permit Program.

(12) For purposes of 310 CMR 40.0000, the following words and phrases shall have the following meanings unless the context clearly indicates otherwise:

Active Exposure Pathway Mitigation Measure means a type of Exposure Pathway Mitigation Measure that relies upon the continual use of a mechanical or electro-mechanical device that is designed and operated for the sole purpose of:

- (a) creating and maintaining a negative pressure field beneath and/or surrounding a building to prevent or mitigate the migration of subsurface OHM vapors into a building; or
- (b) treating OHM present in a private water system associated with a private water supply well.

Active Operation and Maintenance means activities related to:

- (a) operating and maintaining an Active Remedial System;
- (b) operating and maintaining an Active Exposure Pathway Mitigation Measure; or
- (c) conducting an Active Remedial Monitoring Program.

Active Remedial Monitoring Program means a remedial action that employs a systematically designed and monitored program of sampling and analyzing environmental media (*e.g.*, application of Remedial Additives, Monitored Natural Attenuation, reactive walls); an Active Remedial Monitoring Program does not employ an Active Remedial System.

Active Remedial System means a type of Remedial System that relies upon the continual or periodic use of an on-site or in-situ mechanical or electro-mechanical device to contain, treat and/or remove oil or hazardous material in the environment. The term does not include Active Exposure Pathway Mitigation Measures.

Act of God means an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight. A natural disaster is unanticipated when it is of a type unexpected given the area, the season, and the past history of conditions.

40.0006: continued

Activity and Use Limitation means a Grant of Environmental Restriction or Notice of Activity and Use Limitation recorded, registered or filed in accordance with 310 CMR 40.1070 through 310 CMR 40.1099.

Adjudicatory Hearing means a hearing conducted in accordance with M.G.L. c. 30A, § 10, and 310 CMR 1.00: *Adjudicatory Proceedings*.

Affected Individual means any individual who experiences or may experience significant health, safety, welfare or environmental impacts from a disposal site.

Affected Person means any group of two or more individuals, or any community or agency thereof, or a district or body politic which operates a public water system that might be affected by a disposal site.

Agency means any agency, authority, board, commission, department, office, or political subdivision of the federal, state or local government.

Aliphatic Hydrocarbon Fraction means C₅ through C₈ Aliphatic Hydrocarbons, C₉ through C₁₂ Aliphatic Hydrocarbons, C₉ through C₁₈ Aliphatic Hydrocarbons, and C₁₉ through C₃₆ Aliphatic Hydrocarbons.

Anthropogenic Background means those levels of oil and hazardous material that would exist in the absence of the disposal site of concern and which are:

- (a) attributable to atmospheric deposition of industrial process or engine emissions and are ubiquitous and consistently present in the environment at and in the vicinity of the disposal site of concern;
- (b) attributable to Historic Fill;
- (c) attributable to coal, coal ash, or wood ash, excluding ash landfills or wood ash resulting from the combustion of lumber or wood products that have been treated with chemical preservatives;
- (d) associated with sources specifically exempt from the definitions of disposal site or release as those terms are defined in MGL c. 21E and 310 CMR 40.0006;
- (e) releases to groundwater from a public water supply system; or
- (f) petroleum residues that are incidental to the normal operation of motor vehicles.

Applicant means any person who applies for, or who is required to apply for, a permit, or who applies for a TAG or on whose behalf an application for a permit or TAG is made.

Application means any application, filing, notification, or other submittal of documents in the required form to the Department to initiate a permit or TAG.

Aquifer means a geologic formation, group of formations or part of a formation that is capable of yielding a significant amount of groundwater to wells or springs.

Area of Critical Environmental Concern and ACEC each means an area which has been so designated by the Secretary of Environmental Affairs pursuant to 301 CMR 12.00: *Areas of Critical Environmental Concern*.

Aromatic Hydrocarbon Fraction means C₉ through C₁₀ Aromatic Hydrocarbons and C₁₁ through C₂₂ Aromatic Hydrocarbons.

As-built Construction Report means the document that is prepared in compliance with 310 CMR 40.0875.

Assess and Assessment each means investigations, monitoring, surveys, testing, and other information-gathering activities to identify:

- (a) the existence, source, nature and extent of a release or threat of release of oil and/or hazardous material;
- (b) the extent of risk or danger to the public health, safety, welfare and the environment; or
- (c) those persons liable under M.G.L. c. 21E, § 5. Assess and Assessment shall also include, without limitation, studies, services and investigations to plan, manage and direct assessments, containments and removals, to determine and recover the costs thereof and to otherwise accomplish the purposes of M.G.L. c. 21E and/or 310 CMR 40.0000. Assess and Assessment shall not include removals, containments or remedial actions.

40.0006: continued

Assessment Endpoint means a specific effect on a specific group of organisms that is evaluated in a quantitative environmental risk characterization.

Audit means any activity conducted by the Department pursuant to 310 CMR 40.1100 with respect to a site to determine whether response actions which the Department has not directly overseen or performed have been conducted in accordance with M.G.L. c. 21E, 310 CMR 40.000, 310 CMR 40.0000 and any other laws, regulations, orders, permits and approvals applicable to such response actions. An audit may be conducted for all or any portion of a response action or site.

Audit Follow-up Plan means a plan prepared by an LSP or the Consultant-of-Record pursuant to 310 CMR 40.1100 to confirm, demonstrate or achieve compliance with M.G.L. c. 21E and/or the MCP.

Background means those levels of oil and hazardous material that would exist in the absence of the disposal site of concern, including both Natural Background and Anthropogenic Background.

Best Management Practices for Non-commercial Gardening means current practices generally accepted by practitioners of safe gardening methods that limit potential human exposure to OHM during gardening activities and as the result of consumption of fruits and vegetables grown in a non-commercial garden. Such practices include, but are not limited to: locating garden beds outside of areas affected by releases of OHM; gardening in raised beds above a barrier layer; use of soil and soil amendments unaffected by releases of OHM in garden beds; and covering adjacent areas to limit the transfer of OHM from windborne material into garden beds.

Biota means plant or animal life.

C₅ through C₈ Aliphatic Hydrocarbons means the cumulative concentration of all aliphatic hydrocarbon compounds with boiling points greater than 36EC and less than 150EC, as measured by chromatographic methods approved by the Department or equivalent procedures, excluding the individual compounds listed at 310 CMR 40.0974(2).

C₉ through C₁₂ Aliphatic Hydrocarbons means the cumulative concentration of all aliphatic hydrocarbon compounds with boiling points equal to or greater than 150EC and less than 217EC, as measured by chromatographic methods approved by the Department or equivalent procedures, excluding the individual compounds listed at 310 CMR 40.0974(2).

C₉ through C₁₈ Aliphatic Hydrocarbons means the cumulative concentration of all aliphatic hydrocarbon compounds with boiling points equal to or greater than 150EC and less than 330EC, as measured by chromatographic methods approved by the Department or equivalent procedures, excluding the individual compounds listed at 310 CMR 40.0974(2).

C₁₉ through C₃₆ Aliphatic Hydrocarbons means the cumulative concentration of all aliphatic hydrocarbon compounds with boiling points equal to or greater than 330EC and less than 500EC, as measured by chromatographic methods approved by the Department or equivalent procedures, excluding the individual compounds listed at 310 CMR 40.0974(2).

C₉ through C₁₀ Aromatic Hydrocarbons means the cumulative concentration of all aromatic hydrocarbon compounds with boiling points greater than 169EC and equal to or less than 218EC, as measured by chromatographic methods approved by the Department or equivalent procedures, excluding the individual compounds listed at 310 CMR 40.0974(2).

C₁₁ through C₂₂ Aromatic Hydrocarbons means the cumulative concentration of all aromatic hydrocarbon compounds with boiling points greater than 218EC and equal to or less than 525EC, as measured by chromatographic methods approved by the Department or equivalent procedures, excluding the individual compounds listed at 310 CMR 40.0974(2).

CAS means Chemical Abstract Service.

Carcinogenic Slope Factor (CSF, also Cancer Slope Factor) means an estimate of the increased cancer risk from exposure to an oil or hazardous material (OHM), expressed as risk per unit dose of (mg OHM/kg-day).

40.0006: continued

CERCLA means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601 *et seq.*

Chief Municipal Officer means the city manager in any city having a city manager, or the mayor in any other city; the town manager in any town having a town manager, or the chairman of the board of selectmen in any other town.

Class A Surface Water Body means any segment of an inland or coastal surface water body so assigned "Class A" pursuant to 314 CMR 4.00: *Massachusetts Surface Water Quality Standards*.

Coastal Waters means the Atlantic Ocean and all contiguous saline bays, inlets and harbors within the jurisdiction of the Commonwealth including areas where fresh and salt waters mix and tidal effects are evident or any partially enclosed coastal body of water where the tide meets the current of a stream or river.

Commissioner means the Commissioner of the Department of Environmental Protection.

Community means any city or town of the Commonwealth.

Completion Statement means the LSP Opinion, including, but not limited to, applicable scopes of work, plans and reports, required by:

- (a) 310 CMR 40.0427 upon completion of an Immediate Response Action;
- (b) 310 CMR 40.0446 upon completion of a Release Abatement Measure;
- (c) 310 CMR 40.0466 upon completion of a Utility-related Abatement Measure;
- (d) 310 CMR 40.1140 upon completion of response actions required by an Audit Follow-up Plan;
- (e) 310 CMR 40.0484 upon completion of Phase I;
- (f) 310 CMR 40.0836 upon completion of Phase II;
- (g) 310 CMR 40.0862 upon completion of Phase III;
- (h) 310 CMR 40.0879 upon completion of Phase IV;
- (i) 310 CMR 40.0893 upon completion of Phase V; and
- (j) any other permit, approval or order issued by the Department.

Compliance Assistance means any service rendered by the Department to assist any person performing a response action to confirm, demonstrate or achieve compliance with M.G.L. c. 21E, 310 CMR 40.0000 and other laws, regulations, orders, permits and approvals applicable to such response actions.

Comprehensive Remedial Action means any remedial action performed in accordance with 310 CMR 40.0800.

Comprehensive Remedial Alternative means a measure or combination of measures identified and evaluated in accordance with 310 CMR 40.0850 for its effectiveness in reducing, mitigating or eliminating risk posed by a disposal site.

Comprehensive Response Action means any response action performed in accordance with 310 CMR 40.0800.

Compressed gas means any material or mixture that is in a container and that, while in the container, has an absolute pressure exceeding 40 pounds per square inch at 70EF or, regardless of the pressure at 70EF, has an absolute pressure exceeding 104 pounds per square inch at 130EF.

Conceptual Site Model or CSM means a site-specific description of how contaminants entered the environment, how contaminants have been and may be transported within the environment, and routes of exposure to human and environmental receptors that provides a dynamic framework for assessing current and foreseeable future site characteristics and risk, identifying and addressing data gaps and managing uncertainty, eliminating or controlling contaminant sources, developing and conducting response action strategies, and evaluating whether those strategies have been effective in achieving desired endpoints. At sites at which NAPL is or may be present, this includes the body of fundamental scientific principles describing the behavior of fluid flow in porous media necessary to assess NAPL in subsurface strata.

40.0006: continued

Condition of Substantial Release Migration (SRM) means a 72-hour notification condition at a disposal site that is further defined at 310 CMR 40.0313(4) and includes any of the following:

- (a) releases that have resulted in the discharge of separate-phase oil and/or separate-phase hazardous material to surface waters, buildings, or underground utilities or conduits;
- (b) releases to the ground surface or to the vadose zone that, if not promptly removed or contained, are likely to significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution;
- (c) releases to the groundwater that have migrated or are expected to migrate more than 200 feet per year;
- (d) releases to the groundwater that have been or are within one year likely to be detected in a public or private water supply well;
- (e) releases to the groundwater that have been or are within one year likely to be detected in a surface water body, wetland, or public water supply reservoir; or
- (f) releases to the groundwater or to the vadose zone that have resulted or have the potential to result in the discharge of vapors into a School, Daycare or Child Care Center or occupied Residential Dwelling.

Conditions means those requirements set forth in a written determination issued by the Department for the purpose of permitting, regulating or prohibiting any activity pursuant to M.G.L. c. 21E and/or 310 CMR 40.0000.

Construction Plans and Specifications means any document that is prepared in accordance with 310 CMR 40.0870.

Consultant-of-record means each consultant, other than a Licensed Site Professional, who provides professional services with respect to a specific site, unless and until such person notifies the Department in writing that he or she is no longer engaged or employed to provide such services with respect to such site.

Contain and Containment each means actions taken in response to a release or threat of release of oil or hazardous material to prevent or minimize such release so that it does not migrate or otherwise cause or threaten substantial danger to present or future health, safety, public welfare or the environment. The term shall also include security measures, including, without limitation, the building of fences for the purpose of limiting and restricting access to a site or vessel where there has been a release or there is a threat of a release of oil or hazardous material.

Containerized Waste means discarded oil and/or hazardous material at a site, excluding Contaminated Media, that is contained in drums, tanks, engineered impoundments, or other fabricated containers, including, without limitation,

- (a) discarded oil and/or hazardous material that was generated at a site as a result of manufacturing industrial, commercial, or other process-related activities, and
- (b) discarded oil and/or hazardous material discovered, managed, generated, or accumulated as part of a response action.

Contaminated Debris means any debris that contains oil and/or hazardous material associated with a release for which notification is required by 310 CMR 40.0300 and 40.1600.

Contaminated Groundwater means groundwater containing oil and/or hazardous material at concentrations equal to or greater than a release notification threshold established by 310 CMR 40.0300 and 40.1600.

Contaminated Media means Contaminated Groundwater, Contaminated Sediment, Contaminated Soil, and/or Contaminated Surface Water.

Contaminated Sediments means sediments containing oil and/or hazardous material associated with a release for which notification is required by 310 CMR 40.0300 and 40.1600.

Contaminated Soil means soil containing oil and/or hazardous material at concentrations equal to or greater than a release notification threshold established by 310 CMR 40.0300 and 40.1600.

40.0006: continued

Contaminated Surface Water means surface water containing oil and/or hazardous material associated with a release for which notification is required under 310 CMR 40.0300 and 40.1600.

Critical Exposure Pathways mean those routes by which oil and/or hazardous material(s) released at a disposal site are transported, or are likely to be transported, to human receptors via:

- (a) vapor-phase emissions of measurable concentrations of oil and/or hazardous materials into the living or working space of a pre-school, daycare, school or occupied residential dwelling; or
- (b) ingestion, dermal absorption or inhalation of measurable concentrations of oil and/or hazardous materials from drinking water supply wells located at and servicing a pre-school, daycare, school or occupied residential dwelling.

Cumulative Receptor Cancer Risk means the sum of the estimated excess lifetime cancer risks associated with exposure to all oil and/or hazardous material at or from a disposal site at all exposure points for a given receptor.

Cumulative Receptor Non-cancer Risk means a calculation of the possibility of non-cancer health effects associated with exposure to all oil and/or hazardous material at or from a disposal site at all exposure points identified for a given receptor. The Hazard Index is a measure of the Cumulative Receptor Non-cancer Risk.

Current Drinking Water Source Area means groundwater located:

- (a) within the Zone II for a public water supply;
- (b) within the Interim Wellhead Protection Area for a public water supply;
- (c) within the Zone A of a Class A surface water body used as a public water supply, excluding emergency sources approved by the Department under the provisions of M.G.L. c. 21G; or
- (d) within 500 feet of a private water supply well.

Daycare or Child Care Center means a facility operated on a regular basis whether known as a daycare, child nursery, nursery school, kindergarten, child play school, progressive school, child development center, pre-school, or known under any other name, which receives children under seven years of age, or under 16 years of age if these children have special needs, for non-residential custody and care during part or all of the day separate from the parents or other persons responsible for the children. Daycare or Child Care Center shall not include: any part of a public school system; any part of a private organized educational system, unless the services of such a system are primarily limited to kindergarten, nursery or related pre-school services; a facility operated by a religious organization where children are cared for during short periods of time while parents or other persons responsible for the children are attending religious services; a facility within or attached to a commercial facility where children are cared for during short periods of time while parents or other persons responsible for the children are engaged in work or other activities; an informal cooperative arrangement among neighbors or relatives; or the occasional care of children with or without compensation.

Debris means solid material that is a manufactured object, plant or animal matter that is intended for disposal or is otherwise no longer serving its intended use. The term shall include demolition and construction waste, hay, vegetation, and other organic and inorganic absorbent materials used to contain or absorb releases of oil and/or hazardous material. The term shall not include:

- (a) any material for which a specific treatment standard is provided in subpart D of part 268 of the Code of Federal Regulations; or
- (b) process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges or air emission residues.

Demolition and Construction Waste means any waste materials and rubble resulting from the construction, remodeling, repair or demolition of buildings, pavement, roads or other structures. Demolition and construction waste includes, but is not limited to, concrete, bricks, lumber, masonry, road paving materials, rebar and plaster.

Dense Nonaqueous Phase Liquid and DNAPL each means NAPL that has a specific gravity greater than one.

40.0006: continued

Department and DEP each means the Department of Environmental Protection.

Determination means any decision, oral or written, that is made by the Department in accordance with M.G.L. c. 21E and/or 310 CMR 40.0000 with regard to response actions and that is not an order issued pursuant to M.G.L. c. 21E, §§ 9 or 10, or a permit.

DDD means 2,2-*bis*(*p*-chlorophenyl)-1,1-dichloroethane.

DDE means dichlorodiphenyldichloroethylene.

DDT means 1,1,1-trichloro-2,2-*bis*(*p*-chlorophenyl)ethane.

Direct Hours means time expended by employees of the Department in planning, managing, directing or performing response actions, or otherwise ensuring compliance with the requirements of M.G.L. c. 21E and/or 310 CMR 40.0000, with respect to a specific site.

Discharge means any addition, direct or indirect, of oil and/or hazardous material at or from a disposal site to any waters of the Commonwealth, POTW, sewer system, or Non-Publicly Owned Treatment Works, or to the ground surface or subsurface, that results from the management of Remedial Wastewater, Remedial Additives, and/or groundwater pursuant to 310 CMR 40.0000.

Disposal Site means any structure, well, pit, pond, lagoon, impoundment, ditch, landfill or other place or area, excluding ambient air or surface water, where uncontrolled oil and/or hazardous material has come to be located as a result of any spilling, leaking, pouring, abandoning, emitting, emptying, discharging, injecting, escaping, leaching, dumping, discarding or otherwise disposing of such oil and/or hazardous material. The term shall not include any site containing only oil or hazardous materials which: are lead-based paint residues emanating from a point of original application of such paint; resulted from emissions from the exhaust of an engine; are building materials still serving their original intended use or emanating from such use; or resulted from release of source, byproduct or special nuclear material from a nuclear incident, as those terms are defined in 42 U.S.C. § 2014, if such release was subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under 42 U.S.C. § 2210.

District means a fire, water, sewer, water pollution abatement, refuse disposal, light, school, economic development or improvement district, conservation or any other district, howsoever named, formed for the purpose of carrying out any of the aforementioned functions, whether established under general law or special act.

Document means writings or recordings of any nature, including, but not limited to, waste site cleanup activity opinions, applications, contracts, agreements, notices, communications, correspondence, memoranda, records, reports, petitions, plans, specifications, registers, books, logs, summaries, data, statistical statements, work papers, drafts, copies, graphs, charts, analytical records, journals, financial statements, and all other written, printed, recorded, electronic, magnetic or photographic matter, however produced or reproduced.

Downgradient means:

- (a) in reference to surface water, the direction perpendicular to lines of equal elevation over a distance in which elevation continuously decreases, measured from the point or area in question; or
- (b) in reference to groundwater, the direction perpendicular to lines of equipotential over a distance in which total head continuously decreases, measured from the point or area in question.

Downgradient Property means a parcel of land which is located downgradient of the parcel of land which is the source of a release which has come to be located thereon.

Eligible Person means an owner or operator of a site or a portion thereof from or at which there is or has been a release of oil or hazardous material who:

40.0006: continued

- (a) would be liable under M.G.L. c. 21E, § 5(a)(1) solely; and
- (b) did not cause or contribute to the release of oil or hazardous material from or at the site and did not own or operate the site at the time of the release.

Eligible Tenant means a person who acquires occupancy, possession or control of a site, or a portion thereof, after a release of oil or hazardous material from or at such site has been reported to the department, who did not cause or contribute to the release and who would not otherwise be liable pursuant to M.G.L. c. 21E, § 5(a)(2) through (5).

Endangered Species means those vertebrate and invertebrate animal species officially listed as endangered by the Massachusetts Division of Fisheries and Wildlife under 321 CMR 10.00: *Massachusetts Endangered Species Act Regulations*.

Engineered Barrier means a permanent cap with or without a liner that is designed, constructed and maintained in accordance with the requirements of 310 CMR 40.0996 and 310 CMR 40.0000.

Environment means waters, land, surface or subsurface strata, or ambient air of the Commonwealth.

Environmental Monitor means the publication of that name issued by the Executive Office of Energy and Environmental Affairs pursuant to 301 CMR 11.19.

Environmental Receptor means any living organism, other than humans, and/or any habitat which supports such organisms, and/or any other natural resource which comes into contact with oil and/or hazardous material as a result of a release to the environment.

Environmental Restriction means a restriction or other covenant concerning the use of property that is held or imposed by the Department pursuant to M.G.L. c. 21E, § 6.

EOEEA means the Massachusetts Executive Office of Energy and Environmental Affairs.

EPA means the U.S. Environmental Protection Agency.

Excess Lifetime Cancer Risk means the estimated probability that an individual's exposure during a lifetime to an oil or hazardous material could result in cancer.

Exposure means any contact with or ingestion, inhalation or assimilation of oil and/or hazardous material, including, without limitation, irradiation.

Exposure Pathway means the mechanism by which human or environmental receptors inhale, consume, absorb, or otherwise take in oil and/or hazardous material at an Exposure Point.

Exposure Pathway Mitigation Measure means a Remedial Action directed at an Exposure Pathway that eliminates or reduces exposure to oil and/or hazardous material by human or ecological receptors . *See also* Active Exposure Pathway Mitigation Measure and Passive Exposure Pathway Mitigation Measure.

Exposure Point means a location of potential contact between a human or environmental receptor and a release of oil and/or hazardous material. An Exposure Point may describe an area or zone of potential exposure, as well as a single discrete point.

Exposure Point Concentration means the concentration of oil or hazardous material in a specific medium which a human or environmental receptor may contact at an Exposure Point.

Fee means a permit application fee for a Bureau of Waste Site Cleanup permit or an annual compliance assurance fee payable in accordance with M.G.L. c. 21E, § 3B, 310 CMR 4.00: *Timely Action Schedule and Fee Provisions* and 310 CMR 40.0000.

Fill Material means soil, sediments, rock and/or stone obtained off-site that is used to fill holes or depressions, create mounds, or otherwise artificially change the grade or elevation of real property.

Final Inspection Report means the document that is required by 310 CMR 40.0870.

40.0006: continued

Fish Habitat means any surface water body that serves as a habitat for fresh or marine fauna, including, but not limited to, crustacean, fin fish and shellfish.

Flammable Range means the difference between the minimum and maximum volume percentages of the material in air that forms a flammable ignitable compressed gas.

Freshwater Environment (Reserved)

Force Majeure means any act or occurrence, beyond the reasonable control of a RP, PRP or Other Person, and without the fault of such person, directly affecting the ability of the RP, PRP or Other Person to comply with any deadline or time period imposed by M.G.L. c. 21E, 310 CMR 40.0000 or any order or determination issued by the Department pursuant to M.G.L. c. 21E or 310 CMR 40.0000, which event could not have been prevented, avoided or overcome by the exercise of due care, foresight or due diligence on the part of such person. Such force majeure events may include, but are not limited to, acts of God, fires, floods, strikes, labor actions, an order of court, a prohibition or inability arising under a federal, state or local statute, regulation, code, ordinance or by-law, acts of a public enemy, war embargo, insurrection, riot, the condemnation, taking, seizure or involuntary conversion of a site or any part thereof by the action of any federal, state or local governmental body, or any delay which results from inability to secure access to the site if the cause of the inability is not within the person's reasonable control. Legal, technical and financial inability, or increased costs or expenses associated with performance of any action called for by 310 CMR 40.0000 or an order issued by the Department, shall not be considered a force majeure.

Grant Agreement means the document which, upon signature by the Commissioner and the Technical Assistant Grant Applicant or the authorized representative of the applicant, constitutes a binding agreement containing the terms and conditions of a Technical Assistance Grant and the obligations of the Department and the Grantee.

Grantee means a person or group of persons who has been awarded a Technical Assistance Grant in accordance with 310 CMR 40.1400.

Groundwater means any water below the earth's surface in the zone of saturation.

Habitat means the area or type of environment in which an organism or biological population normally lives or occurs, including, without limitation, wetland habitat, woodland habitat, grassland habitat and mountain habitat.

Hazard Index means a calculation of the possibility of non-cancer health effects as the result of exposure to one or more oil or hazardous materials with the same or similar modes of toxic action or toxic endpoints. The Hazard Index (HI) is defined as: $HI = D1 / AD1 + D2 / AD2 + \dots + Di / ADi$ where D is the daily dose (or daily concentration) for a particular oil or hazardous material, and AD is the allowable daily dose (or allowable daily concentration) for a particular oil or hazardous material specified by the Department. The allowable daily concentration is the Reference Concentration or other allowable daily concentration specified by the Department.

Hazard Quotient means a calculation of the possibility of non-cancer health effects as the result of exposure to an oil or hazardous material. The Hazard Quotient (HQ) is defined as: $HQ = D / AD$ where D is the daily dose (or daily concentration) for the oil or hazardous material and AD is the allowable daily dose (or allowable daily concentration) for the oil or hazardous material specified by the Department. The allowable daily concentration is the Reference Concentration or other allowable daily concentration specified by the Department.

40.0006: continued

Hazardous Material means material, including, but not limited to, any material in whatever form which, because of its quantity, concentration, chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with any substance or substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment, when improperly stored, treated, transported, disposed of, used, or otherwise managed. The term shall not include oil, but shall include waste oil and all those substances which are included under 42 U.S.C. § 9601(14), but it is not limited to those substances. The term shall also include, but is not limited to, material regulated as hazardous waste or recyclable material under 310 CMR 30.000: *Hazardous Waste*.

Hazardous Waste means a waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical or infectious characteristics may cause, or significantly contribute to an increase in serious irreversible, or incapacitating reversible illness or pose a substantial present or potential hazard to human health, safety, public welfare or the environment when improperly treated, stored, transported, used or disposed of, or otherwise managed, however, not to include solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act of 1967, or source, special nuclear, or by product material as defined by the Atomic Energy Act of 1954, as further described in 310 CMR 30.000: *Hazardous Waste*.

Headspace Screening Method means an analytical screening procedure which relies upon the mass transfer of volatile oil and/or hazardous material from a solid or liquid test sample to an overlying confined space.

Historic Fill means Fill Material that based on the weight of evidence and consistent with the Conceptual Site Model:

- (a) was emplaced before January 1, 1983;
- (b) may contain, but is not primarily composed of, construction and demolition debris, dredge spoils, coal ash, wood ash or other solid waste material;
- (c) was contaminated with metals, hydrocarbons, and/or polycyclic aromatic hydrocarbons prior to emplacement, at concentrations consistent with the pervasive use and release of such materials prior to 1983;
- (d) does not contain oil or hazardous materials originating from operations or activities at the location of emplacement;
- (e) is not and does not contain a generated hazardous waste, other than Oil or Waste Oil;
- (f) does not contain chemical production waste, manufacturing waste, or waste from processing of metal or mineral ores, residues, slag or tailings; and
- (g) does not contain waste material disposed in a municipal solid waste dump, burning dump, landfill, waste lagoon or other waste disposal location.

Hot Spot means a discrete area where the concentrations of oil or hazardous material are substantially higher than those present in the surrounding area. A Hot Spot shall be identified based on consideration of both the concentration of an oil or hazardous material within a contaminated area and the spatial pattern of that contamination. The areal extent and spatial pattern of a hot spot may be determined through the analytical results from multiple samples taken within the area, or the results of limited sampling in combination with other knowledge about the release, such as the presence of discoloration, odors or a defined source area. In all cases, areas of waste disposal, including but not limited to Manufactured Gas Plant Waste, shall be considered Hot Spots. Discrete areas where the average concentration within the area is greater than ten but less than one hundred times the average concentration in the immediate surrounding area is a Hot Spot unless there is no evidence that the discrete area would be associated with greater exposure potential than the surrounding area. In all cases, a discrete area where the concentration of an oil or hazardous material is greater than one hundred times the concentration in the surrounding area shall be considered a Hot Spot. In no case shall concentrations of oil or hazardous material equal to or less than an applicable Method 1 standard be considered indicative of a Hot Spot.

40.0006: continued

Hourly Rate of Compensation and Hourly Rate each means the total compensation per hour provided to an employee or contractor of the Department. With respect to employees of the Department, it is calculated by dividing the weekly pay rate of an employee by the authorized number of weekly hours of the employee, excluding over-time hours, and multiplying the resulting figure by a factor which reflects the average cost of paid leave, health insurance and pension benefits. With respect to contractors employed by the Department, it is the hourly rate for the employee established by the contract between the Department and the contractor or the employer of the contractor.

Human Receptor means a person who is likely to be affected by a site, as further described in 310 CMR 40.0900.

Immediate Response Action and IRA each means any response action performed in accordance with 310 CMR 40.0410.

Imminent Hazard means a hazard which would pose a significant risk of harm to health, safety, public welfare or the environment if it were present for even a short period of time, as further described in 310 CMR 40.0950.

Imminent Hazard Evaluation means an evaluation performed in accordance with 310 CMR 40.0951 through 310 CMR 40.0955.

Indirect Rate means a rate which reflects the average cost per hour of services provided by Department employees, and expenses incurred by the Department, in support of Direct Hours. The Indirect Rate includes, but is not limited to, time spent by Department employees performing management, administrative, clerical, training, fiscal management, information management, laboratory certification, quality assurance and quality control duties, and non-labor overhead expenses, including office space and equipment rentals, office supplies, telephone bills, field and laboratory equipment, training expenses, utility service, maintenance and repairs, printing and travel, medicare, unemployment insurance and workers' compensation payments.

Influent means any flow of Remedial Wastewater or groundwater into treatment works.

Informal conference means a conference not subject to those provisions of M.G.L. c. 30A, § 10, governing adjudicatory proceedings.

Initial Site Investigation Activities means any activity performed in accordance with 310 CMR 40.0405(1).

Innovative technology means technology which is state-of-the-art and/or experimental.

Institution means any publicly or privately owned hospital, health care facility, orphanage, nursing home, convalescent home, educational facility, or correctional facility, where such facility in whole or in part provides overnight housing.

Interim Deadline means a deadline established by the Department pursuant to M.G.L. c. 21E, § 3A(j), and 310 CMR 40.0167, other than a deadline that is either expressly set forth in 310 CMR 40.0000 or determined by reference to a specific provision in 310 CMR 40.0000.

Interim Wellhead Protection Area ("IWPA") means:

- (a) with respect to public water supply wells and wellfields whose pumping rate is 100,000 gallons per day or greater and for which the Department has not approved a hydrologically delineated Zone II, the ½ mile radius surrounding such well or wellfield; and
- (b) with respect to public water supply wells and wellfields whose pumping rate is less than 100,000 gallons per day and for which the Department has not approved a hydrologically delineated Zone II, the radius calculated by multiplying the maximum pumping rate in gallons per minute for such well or wellfield by 32 and adding 400 feet thereto (*i.e.* IWPA = 32y + 400; where y = pumping rate in gallons per minute).

40.0006: continued

Knowledge means:

- (a) actual knowledge; or
- (b) knowledge a person acting in a reasonably prudent and intelligent manner would have, but for that person's willful, knowing or negligent avoidance of learning about the fact or facts in question. In determining whether a person has acted in a reasonably prudent and intelligent manner, any specialized knowledge or training possessed by that person and the circumstances surrounding the fact or facts in question shall be taken into account.

Known Source means, for the purposes of the Downgradient Property Status provisions at 310 CMR 40.0189, the original location of a release that has migrated in or on groundwater or surface water to a downgradient or downstream property, as established by a preponderance of credible scientific and technical evidence.

Lake means any open body of fresh water with a surface area of ten acres or more, including, without limitation, Great Ponds.

Leaching means the percolation or draining of liquid through oil and/or hazardous material.

Licensed Site Professional and LSP each means a hazardous waste site cleanup professional, as defined in M.G.L. c. 21A, § 19, holding a valid license issued by the Board of Registration of Hazardous Waste Site Cleanup Professionals pursuant to M.G.L. c. 21A, §§ 19 through 19J.

Lien Notice means a written notice that the Department intends to perfect a lien pursuant to M.G.L. c. 21E, § 13.

Light Nonaqueous Phase Liquid and LNAPL each means NAPL that has a specific gravity equal to or less than one.

Limited Removal Action and LRA each means a response action performed in accordance with 310 CMR 40.0318.

Living or Working Space means finished and unfinished space within a Daycare or Child Care Center, School or Residential Dwelling, where there is evidence of the potential for more than incidental use (use for more than one hour at a time). Crawl spaces and basements with only incidental use, such as storage or periodic laundry, are not considered Living or Working Space.

Lower Explosive Limit and LEL each means the concentration of oil and/or hazardous material in air below which a flame will not propagate if the mixture is ignited.

LSP Evaluation Opinion means an LSP Opinion submitted to the Department in accordance with 310 CMR 40.0600.

LSP-of-record means each Licensed Site Professional who has rendered an LSP Opinion submitted to the Department with respect to a specific site, unless and until such person notifies the Department in writing that he or she is no longer engaged or employed in his or her capacity as a Licensed Site Professional with respect to such site.

LSP Opinion and Opinion each means a "waste site cleanup activity opinion," as that phrase is defined in M.G.L. c. 21A, § 19, that has been submitted to the Department.

LSP Tier Classification Opinion means the LSP Opinion rendered in accordance with 310 CMR 40.0500.

Manage means any direction or control over the management of Remediation Waste, Remedial Wastewater, Remedial Additives, or Containerized Waste at or from a disposal site.

40.0006: continued

Management means the act, manner or practice of managing, handling or controlling Remediation Waste, Remedial Wastewater, Remedial Additives, Remedial Additive By-products, and/or Containerized Waste at or from a disposal site, including, but not limited to, any excavation, pumping, pouring, emission, containment, dumping, emptying, discarding, injection, discharge, displacement, collection, transportation, withdrawal, storage, treatment, detoxification, reuse, immobilization, solidification, incineration, encapsulation, removal, recycling, or disposal of such additives, waste, or wastewater.

Manufactured Gas Plant Waste and MGP Waste means tars, oil, coke, and other by-products formed in the coal gasification process.

Marine Environment (Reserved)

Massachusetts Contingency Plan and MCP each means 310 CMR 40.0000.

Measurement Endpoint means the result of a measurement that is used to evaluate an assessment endpoint.

MEPA means the Massachusetts Environmental Policy Act, M.G.L. c. 30, §§ 61 through 62H, and 301 CMR 11.00: *MEPA Regulations*.

Migration pathway means a pathway by which oil and/or hazardous material is transported at or from a disposal site.

Modifying Factor (MF) means a factor greater than zero and less than or equal to ten by which a no-observed-adverse-effect level is divided to estimate a Reference Dose. The MF reflects qualitative professional judgments regarding scientific uncertainties not covered under the standard Uncertainty Factors, such as the completeness of the overall data base and the number of animals in the experimental study.

Monitored Natural Attenuation means a systematically designed and monitored Comprehensive Remedial Action that employs physical, chemical, and/or biological processes under favorable conditions to act without human intervention and primarily through degradation mechanisms to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in soil or groundwater, as described in publications by EPA, the Department and other sources that are generally accepted by professionals conducting response actions.

Monitoring Well means a well designed to facilitate the down-hole measurement of groundwater and/or gas levels and the collection of groundwater and/or gas samples and of known and documented Global Positioning System coordinates.

NAPL with Micro-scale Mobility means a NAPL with a footprint that is not expanding, but which is visibly present in the subsurface in sufficient quantities to migrate or potentially migrate as a separate phase over a short distance and visibly impact an excavation, boring or monitoring well.

National Contingency Plan and NCP each means 40 CFR Part 300, as amended.

National Priorities List and NPL each means the National Priorities List published by the U.S. Environmental Protection Agency pursuant to CERCLA.

Natural Background means those levels of oil and hazardous material that would exist in the absence of the disposal site of concern, are ubiquitous and consistently present in the environment at and in the vicinity of the disposal site of concern, and are attributable to geologic or ecological conditions.

Nonaqueous Phase Liquid and NAPL each means oil and/or hazardous material that is present in the environment as a separate phase liquid.

Non-potential Drinking Water Source Area means:

- (a) any Potentially Productive Aquifer or portion thereof which underlies land which has been developed for one or more of the following uses as of January 1, 1996:

40.0006: continued

1. Industry, including:
 - a. heavy industry with facilities that manufacture, store and assemble raw or partially processed products;
 - b. light industry with facilities that manufacture or assemble smaller, partially processed products); and
 - c. warehouses and transportation facilities for bulk products;
2. Commerce, including stores, hotels, offices, shopping centers, restaurants, theaters, parking garages/lots and buildings used to distribute and sell goods and services;
3. Dense residential development and associated uses, including:
 - a. garden apartments (and attached recreational facilities);
 - b. tenements, town or row houses and apartment buildings with associated retail uses;
 - c. high density urban residential development with one to four families housed on lots less than ¼ acre in size;
 - d. mobile home parks.
4. Transportation and associated liquid storage facilities, including:
 - a. airports with paved landing strips, hangars, parking areas and related facilities (excluding small airfields without paved landing strips, hangars or other specialized facilities);
 - b. docks, warehouses and related land-based storage facilities for water transportation and commercial fishing;
 - c. rail yards, terminal freight and storage facilities, and rail stations for passengers;
 - d. terminal freight and storage facilities for truck freight;
 - e. bus terminals; and
 - f. divided highways with a right-of-way wider than 200 feet;
5. Urban open space, including:
 - a. open undeveloped land in the midst of urban areas or adjacent to them, including land that has been cleared for urban development;
 - b. buildings with grounds and green space which are used by Institutions to serve large numbers of people (e.g., schools, hospitals, prisons); and
 - c. cemeteries;
6. Active or closed solid waste landfills permitted pursuant to 310 CMR 19.00, and landfills receiving only wastewater residuals and/or septage (wastewater residuals "monofills") approved by the Department pursuant to M.G.L. c. 21, § 26 through 53; M.G.L. c. 111, § 17; M.G.L. c. 83, §§ 6 and 7, and any regulations promulgated thereunder.

(b) such developed land described in 310 CMR 40.0006: Non-potential Drinking Water Source Area(a) shall encompass an area at least 100 acres in size, but may include areas that have not been developed for the above -listed uses, provided that the land that has not been developed for the above-listed uses is:

1. less than 100 acres in size, and
 2. completely surrounded by areas that have been developed for one or more of the above-listed uses.
- (c) those portions of Potentially Productive Aquifers that underlie block groups (defined by the U.S. Census Bureau) identified by the most recent U.S. Census as having a population density equal to or greater than 4,400 persons per square mile; or
- (d) any aquifer or portion of an aquifer categorized as a Non-potential Drinking Water Source Area pursuant to 310 CMR 40.0932(5)(c);

Non-publicly Owned Treatment Works means any device or system used in the treatment (including recycling and reclamation) of sewage or industrial wastes of a liquid nature which is not publicly owned. A Non-publicly Owned Treatment Works includes any sewers, pipes, or other conveyances only if they convey wastewater to a Non-publicly Owned Treatment Works providing treatment.

Non-stable NAPL means a NAPL with a footprint that is expanding laterally or vertically by:

- (a) migrating along or within a preferred flow path;
- (b) discharging or periodically discharging to a building, utility, drinking water supply well, or surface water body; or
- (c) spreading as a bulk fluid through or from subsurface strata.

No Further Action Letter means a document submitted to the Department upon the completion of all response actions required by 310 CMR 40.000, as effective prior to October 1, 1993.

40.0006: continued

No Significant Risk means a level of control of each identified substance of concern at a site or in the surrounding environment such that no such substance of concern shall present a significant risk of harm to health, safety, public welfare or the environment during any foreseeable period of time.

No Substantial Hazard means a level of control of each identified substance of concern at a site or in the surrounding environment such that no such substance of concern shall present a Substantial Hazard to health, safety, public welfare, or the environment.

Notice of Activity and Use Limitation means a written notice of the activities, uses and/or exposures that provide the basis for a Permanent Solution or Temporary Solution Statement, as further described in 310 CMR 40.1074 through 40.1099.

Notice of Audit means a written or verbal notice given to a person by the Department that communicates that the Department intends to audit that person or a response action or site.

Notice of Intent to Assess a Civil Administrative Penalty and PAN each means a written notice given to a person that states that the Department is seeking to assess a civil administrative penalty pursuant to M.G.L. c. 21A, § 16, and 310 CMR 5.00: *Administrative Penalty*.

Notice of Noncompliance and NON each means a written notice given to a person by the Department that states that said person has failed to comply on any specified occasion with any described requirement, as further described in 310 CMR 5.12: *Notice of Noncompliance*.

Notice of Response Action and NORA each means a notice from the Department to a person informing the person of the Department's intent to undertake one or more response actions.

Notice of Responsibility and NOR each means a notice from the Department to a person informing such person of his or her potential liability pursuant to M.G.L. c. 21E, § 5.

Notification Requirements means the requirements for providing notification to the Department:

- (a) of releases, and threats of release, of oil and/or hazardous material and Imminent Hazards set forth in 310 CMR 40.0300; and/or
- (b) of changes in activities, uses and/or exposures set forth in 310 CMR 40.0020.

NPL Site means a disposal site published on the National Priorities List by EPA.

OHM means oil and/or hazardous material.

Oil means insoluble or partially soluble oils of any kind or origin or in any form, including, without limitation, crude or fuel oils, lube oil or sludge, asphalt, insoluble or partially insoluble derivatives of mineral, animal or vegetable oils and white oil. The term shall not include waste oil, and shall not include those substances which are included in 42 U.S.C. § 9601(14).

Oil facility means a structure, group of structures, equipment, or device, including a public vessel but not including any other type of vessel, that is used for one or more of the following purposes: exploring for, drilling for, producing, storing, handling, transferring, processing, or transporting oil. This definition shall include, without limitation, any motor vehicle, rolling stock, or pipeline used for one or more of the purposes set forth in the preceding sentence.

On-site Worker means a person employed full- or part-time at a property or properties at which a disposal site is located. On-site worker does not refer to workers engaged specifically in disposal site remediation activities.

Operations, Maintenance and/or Monitoring Plans means the document that is prepared in accordance with 310 CMR 40.0870.

40.0006: continued

Other Person means a person who undertakes a response action who is not a RP or PRP.

Outstanding Resource Waters means waters in the Commonwealth given a protected status due to their ecological, socioeconomic, recreational, and/or aesthetic value pursuant to 314 CMR 4.04(3).

Overhead means non-labor overhead expenses. It includes, but is not limited to, space and equipment rentals, office supplies, telephones, field and lab equipment, utilities, maintenance and printing. The hourly rate used in these provisions will be that calculated for the Department's fees set forth in 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.

Oxidizer means a material that yields oxygen readily to stimulate the combustion of organic matter; *e.g.*, chlorate, permanganate, peroxide, nitrocarbonitrate, or inorganic nitrate.

Park, Playground and Recreation Area each means land set aside for use by the public for athletic, recreational or leisure activities.

Passenger Vehicle means a two-, three-, or four-wheeled conveyance used solely for non-commercial purposes.

Passive Exposure Pathway Mitigation Measure means a type of Exposure Pathway Mitigation Measure that does not rely upon the continual or periodic use of an on-site or *in-situ* mechanical or electro-mechanical device.

Periodic Review Opinion means an LSP Opinion that is prepared in accordance with 310 CMR 40.1050.

Permanent Solution means a measure or combination of measures which will, when implemented, ensure attainment of a level of control of each identified substance of concern at a disposal site or in the surrounding environment such that no substance of concern will present a significant risk of damage to health, safety, public welfare, or the environment during any foreseeable period of time.

Permanent Solution Statement means an LSP Opinion submitted to the Department to document the achievement of a Permanent Solution in accordance with 310 CMR 40.1000.

PCBs means polychlorinated biphenyls.

Permit means any permit, license, certificate, registration, plan approval, variance or other approval issued, or required, by the Department pursuant to M.G.L. c. 21E and 310 CMR 40.0000.

Permittee means a person authorized to perform response actions required by M.G.L. c. 21E and/or 310 CMR 40.0000 pursuant to a valid permit issued by or filed with the Department.

Person means any agency or political subdivision of the federal government or state; any state, public or private corporation or authority; any interstate body, foreign nation, individual, trust, firm, joint stock company, partnership, association or other entity; any officer, employee, or agent of such person; and any group of persons.

40.0006: continued

Phase Report means a Phase I Report prepared in accordance with 310 CMR 40.0483, Phase II Report prepared in accordance with 310 CMR 40.0835, Phase III Remedial Action Plan prepared in accordance with 310 CMR 40.0861, Phase IV Remedy Implementation Plan prepared in accordance with 310 CMR 40.0874, Phase IV As-Built Construction Report prepared in accordance with 310 CMR 40.0875, Phase IV Operation, Maintenance and Monitoring Plan prepared in accordance with 310 CMR 40.0874(3)(d), Final Inspection Report prepared in accordance with 310 CMR 40.0878, Phase IV Status and Remedial Monitoring Report prepared in accordance with 310 CMR 40.0877, and Phase V Status and Remedial Monitoring Report prepared in accordance with 310 CMR 40.0892.

Pilot Test means a test designed to acquire information on the anticipated performance of a remedial system. A Pilot Test shall be considered assessment if it is conducted and completed within 21 consecutive days, excluding time required for sample analyses, and involves only soil vapor, Nonaqueous Phase Liquid and/or groundwater extraction, otherwise it shall be considered remediation.

Playground (*see* Park)

Point Source means a discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock or vessel from which oil and/or hazardous material is or may be discharged.

Pond means any coastal or inland pond, as defined in 310 CMR 10.04: Pond.

Potential Drinking Water Source Area means groundwater located:

- (a) 500 feet or more from a public water supply distribution pipeline, unless the groundwater is located under a parcel of land or a facility where any portion of that parcel of land or facility is located less than 500 feet from a public water supply distribution pipeline.
- (b) within an area designated by a municipality specifically for the protection of groundwater quality to ensure its availability for use as a source of potable water supply. Such designation shall be in the form of:
 - 1. a local ordinance or bylaw adopted by the municipality (*e.g.*, an Aquifer Protection District or Zone);
 - 2. an intermunicipal agreement approved by the municipal legislative body; or
 - 3. an executed inter-governmental contract for the purchase or sale of drinking water (*e.g.*, a contract between a public authority supplying water and a municipality); or
- (c) within a Potentially Productive Aquifer that has not been excluded as a Non-Potential Drinking Water Source Area.

Potentially Productive Aquifer means:

- (a) all aquifers delineated by the U.S. Geological Survey (USGS) as a high or medium yield aquifer; and
- (b) all aquifers located east of the Cape Cod Canal (Cape Cod), on the Elizabeth Islands, on Martha's Vineyard, or on Nantucket.

Potentially Responsible Party and PRP each means a person who is potentially liable pursuant to M.G.L. c. 21E.

ppm means parts per million.

Private Water Supply Well means a well which is utilized by a private water system. For purposes of 310 CMR 40.0000, the phrase "private water system" is used to refer to a system for the provision of piped water for human consumption which has fewer than 15 service connections or does not regularly serve an average of at least 25 individuals daily at least 60 days of the year.

40.0006: continued

Professional Services means the rendering of LSP Opinions, and services associated with the rendering of LSP Opinions, by a Licensed Site Professional who has either:

- (a) in the case of an LSP Opinion related to an assessment:
 - 1. managed, supervised or actually performed such assessment, or
 - 2. periodically observed the performance by others of such assessment; or
- (b) in the case of an LSP Opinion related to a containment or removal:
 - 1. managed, supervised or actually performed such action, or
 - 2. periodically reviewed and evaluated the performance by others of such action.

Property Interest means, for purposes of 310 CMR 40.1250, an interest in property held by an owner, mortgagee or holder of a leasehold interest, holder of rights under an easement or other recorded instrument affecting title to property, or holder of a security interest or lien.

Protected Open Space means

- (a) any federal, state or local government-protected open space, including, but not limited to, parks, forests and watershed lands;
- (b) any land used for conservation purposes by a non-profit corporation, such as the Massachusetts Audubon Society, the Trustees of Reservation (excluding land held for its historic value only) and the Nature Conservancy; and
- (c) excluding any privately held land associated with a conservation restriction or easement or controlled by a person other than a non-profit corporation or Agency.

Public Involvement Activities means those activities which a person undertaking one or more response actions is required to perform by M.G.L. c. 21E and 310 CMR 40.1400 to inform the public of, and/or involve the public in, decisions regarding response actions at disposal sites, including, without limitation, the designation of a disposal site as a PIP Site, the provision of notice of response actions to local officials, the publication of notices of public meetings and/or of response actions in newspapers of general circulation in a community, the development of a Public Involvement Plan and the provision of relevant information to the public.

Public Involvement Plan Site and PIP Site each means a disposal site for which additional public involvement activities are required beyond those required for every disposal site and which has been designated as a PIP site pursuant to 310 CMR 40.1404.

Public Water Supply means a source of water supply, including, but not limited to, primary, backup and emergency sources, utilized by a public water system. For purposes of 310 CMR 40.0000, the terms "public water system," "primary source," "backup source," and "emergency source" shall have the meaning in 310 CMR 22.02: Public Water System, Primary Source, Backup Source, and Emergency Source.

Public Water Supply Distribution Pipeline means any piping used for the conveyance of potable water in a public water system.

Public Way means land in use as a public street or highway.

Radiation means alpha particles, beta particles, gamma rays, x-rays, neutrons, high-speed electrons, high-speed protons, and other particles capable of producing ions. For purposes of 310 CMR 40.0000, ionizing radiation is an equivalent term, and does not include non-ionizing radiation, such as radiowaves or microwaves, visible, infrared, or ultraviolet light.

Radioactive Material means any solid, liquid, or gas which emits Radiation spontaneously.

Rail Right-of-way means lands or interests in lands which are in use as rights-of-way for rail transportation purposes, including such lands in use for rail transportation as regulated by M.G.L. c. 161C, and lands in use for rail transportation by the Massachusetts Bay Transportation Authority. Rail Right-of-way does not include related facilities, such as rail yards and rail maintenance facilities.

Random Audit means an audit where the subject of the audit was selected using a methodology in which each member of a class has an equal probability of being selected for audit.

RCRA means the Federal Solid Waste Disposal Act as revised by the Resource Conservation and Recovery Act of 1976, P.L. 94 - 580, 42 U.S.C. §§ 6901 *et seq.*

40.0006: continued

Receptor means a Human Receptor or Environmental Receptor.

Record of Decision and ROD each mean the document prepared pursuant to 40 CFR 300.430(f) for a final remedy selection decision under CERCLA.

Recreation area (*See Park*)

Reference Concentration (RfC) means the daily concentration in air of an oil or hazardous material which would not be expected to result in any adverse non-cancer health effects.

Reference Dose (RfD) means the daily dose of an oil or hazardous material which would not be expected to result in any adverse non-cancer health effects.

Release means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment, but excludes:

- (a) emissions from the exhaust of an engine;
- (b) release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in 42 U.S.C. § 2014, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under 42 U.S.C. § 2210;
- (c) the normal application of fertilizer;
- (d) the application of pesticides in a manner consistent with their labelling; and
- (e) the application of residuals in accordance with 310 CMR 32.00: *Land Application of Sludge and Septage*.

Release Abatement Measure and RAM each means any response actions undertaken in accordance with 310 CMR 40.0440.

Release Notification Form means the form required by 310 CMR 40.0333(1)(b) and 310 CMR 40.0371 for purposes of providing written notification of a release or threat of release to the Department.

Release Tracking Number means the file number assigned by the Department to a release or threat of release reported in accordance with 310 CMR 40.0300.

Remedial Additives means any aqueous, gaseous, or solid phase agent that is designed to treat or enhance the treatment of, or assessment of, soil and/or groundwater. The term shall include oxidizing agents, encapsulants, sequestering agents, non-pathogenic microbes, enzymes, nutrients, surfactants, and anti-fouling agents used to inhibit microbial growth in remedial treatment systems and monitoring wells.

Remedial Additive By-product means any physical, chemical, or biological reaction by-product that results from the application or discharge of Remedial Additives to soil and/or groundwater.

Remedial Action means any containment or removal.

Remedial Action Plan means the document that is prepared in accordance with 310 CMR 40.0861 to justify the selection of a remedial action.

Remedial Monitoring Report means a report that documents monitoring data collected on and observations made of the operation and maintenance of an Active Remedial System, Active Exposure Pathway Mitigation Measure, or Active Remedial Monitoring Program during the applicable reporting period.

Remedial Site means a site at which remedial actions have been completed and for which no further remedial actions are planned.

40.0006: continued

Remedial System means one or more remedial components, Treatment Works, and/or conveyances used to contain, treat and/or remove oil or hazardous material in the environment.

Remedial Technology means a design, measure or engineering practice which comprises, in whole or on part, a remedial action.

Remedial Wastewater means any Contaminated Groundwater and/or Contaminated Surface Water, that is managed, including treatment pursuant to 310 CMR 40.0040.

Remediation Waste means any Uncontainerized Waste, Contaminated Media, and/or Contaminated Debris that is managed pursuant to 310 CMR 40.0030. Remediation Waste does not include Containerized Waste.

Remedy Implementation Plan and RIP each means the document that is prepared in accordance with 310 CMR 40.0874 for implementation of a remedial action.

Remove and removal each means the cleanup or removal of released oil or hazardous materials from the environment, such actions as may be necessarily taken in the event of the threat of release of oil or hazardous material into the environment, the disposal of removed oil or hazardous material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the health, safety, public welfare or the environment, which may result from a release or threat of release. Such term includes, without limitation, treatment.

Reportable Concentration and RC each means the concentration of oil or hazardous material in soil or groundwater which requires notification to the Department under M.G.L. c. 21E, § 7, and/or 310 CMR 40.0360 through 310 CMR 40.0362.

Reportable Quantity and RQ each means the quantity of oil or hazardous material the release of which, or threat of release of which, requires notification to the Department under M.G.L. c. 21E, § 7, and/or 310 CMR 40.0350 through 310 CMR 40.0352.

Request for Information and RFI each means a request issued by the Department to any person for documents or other information relevant or material to a release, threat of release, site, vessel, oil or hazardous material, pursuant to M.G.L. c. 21E, §§ 2, 4 and 8, and 310 CMR 40.0165.

Requirement means a regulation, order, license, or approval issued or adopted by the Department, or any law which the Department has the authority or responsibility to enforce.

Residential Dwelling means a structure used or occupied, or intended to be used or occupied, in whole or in part, as the home or residence of one or more persons, including, but not limited, to single or multi-unit housing, a dormitory, or a retirement or continuing care facility. Residential Dwelling does not mean a structure with transient use, such as a hotel or hospital.

Residual Contamination means the concentrations of oil and/or hazardous material remaining at a site at which further remedial actions are not required by 310 CMR 40.0000.

Respond, Response and Response Action each means assess, assessment, contain, containment, remove or removal.

Response Action Contractor and Contractor each means a contractor or subcontractor who provides services associated with response actions to the Department.

Response Action Cost and Cost each means any cost incurred by the Department in the course of carrying out or overseeing directly or indirectly a response action, including, but not limited to, costs associated with the conduct of Public Involvement Activities, that is one or more of the following:

- (a) cost of direct hours;

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- (b) services provided by Department employees and any related expenses incurred by the Department in support of those direct hours;
- (c) payments made to the Department's contractors, grantees or agents for performing or overseeing response actions at a specific site; and
- (d) any fees or other costs reasonably incurred in connection with a response action, including, but not limited to, fees and other costs associated with requisite federal, state and local permits and litigation costs.

Response Action Outcome and RAO each means the classification of Permanent and Temporary Solutions as further defined in 310 CMR 40.1000 in effect prior to June 20, 2014.

Response Action Outcome Statement means an LSP Opinion submitted to the Department to document achievement of the requirements of a Response Action Outcome prior to June 20, 2014.

Response Action Performance Standard and RAPS each means the level of diligence reasonably necessary to obtain the quantity and quality of information adequate to assess a site, to evaluate remedial action alternatives and to design and implement appropriate remedial actions, as further defined by 310 CMR 40.0191.

Responsible Party and RP each means a person who is liable under M.G.L. c. 21E to the Commonwealth, or to any other person, for any costs or damages.

Risk Characterization means the requirements and procedures for characterizing risks of harm to health, safety, public welfare and the environment set forth in 310 CMR 40.0900.

River means a waterbody contained within a channel, naturally or artificially created, which periodically or continuously contains flowing water or forms a connecting link between two bodies of standing water.

Route of Exposure means a mechanism by which an oil or hazardous material comes into contact with a receptor, including, but not limited to, ingestion, inhalation, dermal absorption and transpiration.

School means any public or private elementary or secondary school, other than a Daycare or Child Care Center.

Sediments means all detrital and inorganic or organic matter situated on the bottom of lakes, ponds, streams, rivers, the ocean, or other surface water bodies. Sediments are found:

- (a) in tidal waters below the mean high water line as defined in 310 CMR 10.23: *Additional Definitions for 310 CMR 10.21 through 10.37*; and
- (b) below the upper boundary of a bank, as defined in 310 CMR 10.54(2), which abuts and confines a water body.

Sheen means an iridescent appearance of any oil or waste oil on the surface of any river, stream, lake, pond, spring, impoundment, estuary, coastal water or groundwater. The term "sheen" shall not include detrital, inorganic or organic matter located in a terrestrial environment.

Significant Public Comment means comment which would appear, on its face, to constitute grounds for the Department to deny a permit or significantly modify a proposed permit decision.

Site means any building, structure, installation, equipment, pipe or pipeline, including any pipe discharging into a sewer or publicly-owned treatment works, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or any other place or area where oil or hazardous material has been deposited, stored, disposed of or placed, or otherwise come to be located. The term shall not include any consumer product in consumer use or any vessel.

Site Activities and Uses means the uses and activities associated with a disposal site and the surrounding environment, as further defined by 310 CMR 40.0923.

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Sludge means the accumulated solids and/or semisolids deposited or removed by the processing and/or treatment of gasses, water or other fluids.

Soil means any unconsolidated mineral and organic matter overlying bedrock that has been subjected to and influenced by geologic and other environmental factors, excluding sediment.

Sole Source Aquifer means an aquifer designated by EPA as the sole or principal source of drinking water for an area pursuant to § 1424(e) of the federal Safe Drinking Water Act.

Source of OHM Contamination means:

- (a) a point of discharge of OHM into the environment that may include, without limitation:
 - 1. leaking storage tanks, vessels, drums and other containers;
 - 2. dry wells or wastewater disposal systems that are not in compliance with regulations governing discharges from those systems; or
- (b) waste deposits, sludges, or impacted soil, sediment, or bedrock at or near a point of discharge or deposit of OHM into the environment containing sorbed OHM or NAPL that is contaminating surrounding environmental media via dissolution or volatilization processes; except that the downgradient leading edge of a plume of oil and/or hazardous material dissolved in and migrating with groundwater or as vapor-phase shall not, in and of itself, be considered a Source of OHM Contamination.

Species of Special Concern means those vertebrate and invertebrate animal species officially listed as species of special concern by the Massachusetts Division of Fisheries and Wildlife under 321 CMR 10.00: *Massachusetts Endangered Species Act Regulations*.

Statement of Claim and Statement each means an instrument signed by the Commissioner, describing a particular site or sites and naming the person or persons then deemed by the Commissioner to be liable under M.G.L. c. 21E with respect to each such site and their residential addresses, to the extent known to the Commissioner, and declaring a lien upon the property of such person or persons for the payment of amounts due or to become due from such person or persons to the Commonwealth under M.G.L. c. 21E; provided, however, that neither failure to state any such address nor the designation of an incorrect address shall invalidate such statement; and provided, further, that successive statements, naming other persons so deemed to be liable, may be issued.

Status Report means an LSP Opinion, including, but not limited to, any plans and reports, required by these regulations or any determination or order to inform the Department as to the status of work in progress at a disposal site.

Stream means a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydraulic gradient, and which flows within, into or out of an, as defined in 310 CMR 10.04: Area Subject to Protection Under the Act.

Submittal means a document which any person sends, files, or otherwise delivers to the Department, or is required to send, file or otherwise deliver to the Department, pursuant to M.G.L. c. 21E, 310 CMR 40.0000 or any permit, order or determination issued thereunder.

Substantial Hazard means a hazard as further defined in 310 CMR 40.0956 that would pose a significant risk of harm to health, safety, public welfare, or the environment if it continued to be present for several years.

Substantial Release Migration and SRM. (See Condition of Substantial Release Migration)

Supplemental Technical Review means a review on the merits of a permit application and supporting materials, as supplemented, modified, or amended by the applicant in response to a statement identifying deficiencies in the application and supporting materials, as further described in 310 CMR 4.04(2)(b)3. and/or 40.1072.

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Surface Water means all waters other than groundwater within the jurisdiction of the Commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters and vernal pools.

Targeted Audit means an audit where the method used to identify the subject of the audit is any method other than that employed for a random audit and based upon specific criteria established by the Department.

Technical Assistance Grant and TAG each means a grant awarded by the Department pursuant to M.G.L. c. 21E, § 14(b), and 310 CMR 40.1400.

Technical Review means an initial review on the merits of the permit application and supporting materials, as further described in 310 CMR 4.04(2)(b)2. and 40.1072.

Temporary Solution means any measure or combination of measures which will, when implemented, eliminate any substantial hazard which is presented by a disposal site or by any oil and/or hazardous material at or from such site in the environment until a Permanent Solution is achieved.

Temporary Solution Statement means an LSP Opinion submitted to the Department to document the achievement of a Temporary Solution in accordance with 310 CMR 40.1000.

Threatened Species means those vertebrate and invertebrate animal species officially listed as threatened species by the Massachusetts Division of Fisheries and Wildlife under 321 CMR 10.00: *Massachusetts Endangered Species Act Regulations*.

Threat of Release means a substantial likelihood of a release of oil and/or hazardous material which requires action to prevent or mitigate damage to health, safety, public welfare or the environment which may result from the release. Circumstances which represent a threat of release include, but are not limited to, sites containing or conducting an amount of oil and/or hazardous material in excess of the Reportable Quantity for that oil and/or hazardous material, or of an unknown quantity, where no reportable release has occurred but where a person required by 310 CMR 40.0331 to report the threat of release has knowledge of any corrosion, damage, malfunction or other condition that is likely to result in a release.

Tier Classification means the requirements, standards and procedures set forth in 310 CMR 40.0500 for classifying a disposal site as either Tier I or Tier II.

Tier Classification Submittal means those documents which are required by 310 CMR 40.0510(2) to be submitted to the Department for purposes of Tier Classification.

Tier I Permit means any permit, and the terms and conditions stated therein, issued or required by the Department pursuant to M.G.L. c. 21E and 310 CMR 40.0700 prior to June 20, 2014.

Total Organic Vapors means the collective concentration of all volatile organic compounds measured by a flame ionization or photoionization detector.

Total Petroleum Hydrocarbons and TPH each means the total or cumulative concentration of hydrocarbons with boiling points equal to or greater than 150°C (C₉) and associated with a petroleum product, as measured by standard analytical techniques and/or by procedures approved by the Department, excluding the individual compounds listed at 310 CMR 40.0974(2).

Trade Secret means anything tangible which constitutes, represents, evidences or records a secret scientific, technical, merchandising, manufacturing, production, or management information, design, process, procedure, formula, invention or improvement.

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Treatment means any method, technique or process designed to change the physical, chemical or biological character or composition of any oil or hazardous material so as to neutralize the oil or hazardous material or render it less hazardous, non-hazardous, or reduced in volume, including, without limitation, neutralization, incineration, stabilization or solidification.

Treatment Works means any and all devices, processes and properties, real or personal, used to manage Remedial Wastewater, Remedial Additives, and/or Remediation Waste at or from a disposal site.

Uncertainty Factor means one or more factors, each generally an order of magnitude, by which a no-observed-adverse-effect level is divided in accordance with EPA-approved methodology to reflect uncertainty in the various types of data used to estimate a Reference Dose.

Unclassified Disposal Site means a location confirmed by the Department to be a disposal site prior to October 1, 1993, and which has not been classified in accordance with the Interim Disposal Site Classification System set forth in 310 CMR 40.544, prior to October 1, 1993.

Uncontainerized Hazardous Waste means uncontainerized waste that meets the criteria defining a listed or characteristic hazardous waste in 310 CMR 40.0300.

Uncontainerized Waste means any discarded oil and/or hazardous material at a disposal site, including, but not limited to, NAPL, that is not contained in drums, tanks, engineered impoundments, or other fabricated containers.

Underground Storage Tank means a structure of any size or capacity, including, but not limited to, ancillary piping, that is used or designed to be used for the storage of oil and/or hazardous material where 10% or more of the volume of such structure and piping is below the ground surface, excluding any structure that is a free standing container in a building.

Unit Risk means the Excess Lifetime Cancer Risk (ELCR) estimated to result from continuous exposure to an oil or hazardous material per concentration unit of $1\mu\text{g}/\text{m}^3$ in air or 1 $\mu\text{g}/\text{liter}$ in water.

Unknown Source means, for the purposes of the Downgradient Property Status provisions at 310 CMR 40.0189, the original location of a release that has migrated in or on groundwater or surface water to a downgradient or downstream property, where the original location has not been established by a preponderance of credible scientific and technical evidence.

Upgradient means

- (a) in reference to surface water, the direction perpendicular to lines of equal elevation over a distance in which elevation continuously increases, measured from the point or area in question; or
- (b) in reference to groundwater, the direction perpendicular to lines of equipotential over a distance in which total head continuously increases, measured from the point or area in question.

Upgradient Property means a parcel of land which is the source of a release which has come to be located on a parcel of land which is located downgradient thereof.

Utility-related Abatement Measure and URAM each means a response action performed in accordance with 310 CMR 40.0460.

Vadose Zone means the unsaturated zone below the ground surface and above the water table.

Vernal Pool means a water body that has been certified by the Massachusetts Division of Fisheries & Wildlife as a vernal pool.

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Vernal Pool Habitat means any confined basin depression which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, and which are free of adult fish populations, as well as the area within 100 feet of the mean annual boundaries of the depressions, to the extent that the habitat is within an Area Subject to Protection Under the Wetlands Protection Act, as specified in 310 CMR 10.02(1).

Vessel means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water.

Volatilization means the conversion of all or part of a liquid or solid into vapor.

Volatile Organic Compounds and VOCs each mean an organic compound with a boiling point equal to or less than 218EC that are targeted analytes in EPA Method 8260B and other purgeable organic methods specified in the Department's Compendium of Analytical Methods.

Waiver of Approvals and Waiver each mean a waiver granted by the Department in accordance with 310 CMR 40.537, prior to October 1, 1993.

Waiver Site means any non-priority disposal site for which the Department has approved an application for a Waiver of Approvals that has been counter-signed in accordance with 310 CMR 40.537, as effective prior to October 1, 1993, unless such approval has been withdrawn.

Waste Oil means used and/or reprocessed, but not subsequently re-refined, oil that has served its original intended purpose. Waste oil includes, but is not limited to, used and/or reprocessed fuel oil, engine oil, gear oil, cutting oil, and transmission fluid and dielectric fluid.

Water Quality Criteria and Ambient Water Quality Criteria each means the concentrations of oil and/or hazardous material in water developed by EPA pursuant to § 304(a)(1) of the federal Water Pollution Control Act.

Water Quality Standards means 314 CMR 4.00: *Massachusetts Surface Water Quality Standards* and 314 CMR 6.00: *Ground Water Quality Standards*.

Waters of the Commonwealth means all waters within the jurisdiction of the Commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters, vernal pools and groundwater. The term shall not include impoundments of chemical wastes.

Watershed means the region or area measured in a horizontal topographic divide which directs surface runoff from precipitation, normally by gravity, into a stream or body of impounded surface water.

Water Table means the upper elevation of the surface of the saturated zone.

Well means a bored, drilled or driven shaft, or a dig hole, whose depth is greater than its largest surface dimension.

Wetland means any area subject to protection under the Wetlands Protection Act, M.G.L. c. 131, § 40, 314 CMR 9.00: *401 Water Quality Certification for Discharge of Dredged or Fill Material, Dredging, and Dredged Material Disposal in Waters of the United States Within the Commonwealth* or Section 401 of the federal Water Pollution Control Act, 33 U.S.C. 1341.

White Oil means petroleum based oil which contains no aromatic hydrocarbons and is transparent, colorless, odorless and tasteless when cold. Synonyms for white oil include liquid paraffin, liquid petrolatum, USP mineral oil, and vaseline oil.

Wildlife means any mammal, bird, reptile, amphibian, fish, or other vertebrate or invertebrate animal species.

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Zone A means the area adjacent to the bank of a Class A surface drinking water source and its tributaries, as defined in 310 CMR 22.02: Zone A.

Zone B means an area either ½ mile from the bank of a Class A surface drinking water source, or the watershed boundary, whichever is less.

Zone I means the area within the protective radius surrounding a public water supply well or wellfield required by 310 CMR 22.00: *Drinking Water*.

Zone II means that area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated, as approved by the Department's Division of Water Supply pursuant to 310 CMR 22.00: *Drinking Water*.

Zone III means that land area beyond the area of Zone II from which surface water and groundwater drain into Zone II. The surface drainage area, as determined by topography, is commonly coincident with the groundwater drainage area and is used to delineate Zone III. In some locations, where surface and groundwater drainage are not coincident, Zone III shall consist of both the surface drainage and the groundwater drainage areas.

Zone of Saturation means any part of the earth's crust in which all voids are filled with water.

40.0007: Rules of Construction

- (1) 310 CMR 40.0000 shall be construed to effectuate the purposes of M.G.L. c. 21E.
- (2) As used in 310 CMR 40.0000, words in the singular also include the plural.
- (3) No provision of 310 CMR 40.0000 shall be construed to relieve any person from any obligation for Response Action Costs or damages related to a site or disposal site for which that person is liable under M.G.L. c. 21E or from any obligation for any administrative, civil or criminal penalty, fine, settlement, or other damages.
- (4) No provision of 310 CMR 40.0000 shall be construed to limit the Department's authority to take or arrange for, or to require any person to perform, any response action authorized by M.G.L. c. 21E which the Department deems necessary to protect health, safety, public welfare or the environment.
- (5) No provision of 310 CMR 40.0000 shall be construed to limit the Department's authority to reject or require modification of any submittal required by M.G.L. c. 21E, 310 CMR 40.0000, or any other permit, order, or determination issued thereunder if it determines that the submittal does not meet the requirements of the same.
- (6) No provision of 310 CMR 40.0000 shall be construed to imply authorization by the Department to any person other than the Department, or the Department's employees, agents or contractors, to enter any real or personal property not owned by him or her to carry out a response action, or otherwise injure or interfere with any other person's rights or interests in real or personal property, without that person's consent.
- (7) The provisions of 310 CMR 40.0000 are severable and if any provision or its application to any person or circumstance is held invalid, its invalidity shall not affect other provisions or applications which can be given effect without the invalid provision or application.
- (8) No provision of 310 CMR 40.0000 shall be construed to relieve any person of the necessity of complying with all other applicable federal, state or local laws.
- (9) No provision of 310 CMR 40.0000 shall be construed to create in any private party a right to publicly funded response or enforcement action or to create any duty of the Department to perform any response action at any particular time

40.0008: Computation of Time Periods and Deadlines

(1) General. Unless otherwise specifically provided by law, 310 CMR 40.0000 or any order or determination issued pursuant to M.G.L. c. 21E or 310 CMR 40.0000, any time period or deadline prescribed or referred to in 310 CMR 40.0000 or in any order or determination issued pursuant to M.G.L. c. 21E or 310 CMR 40.0000 shall begin with the first day following the act which initiates the running of the time period, and shall include every calendar day, including the last day of the time period so computed. If the last day is a Saturday, Sunday, legal holiday, or any other day on which the offices of the Department are closed, the time period shall run to the end of the next business day.

(2) Determining Date of Issuance of Document. Except as provided by 310 CMR 40.0008(5), each document given by the Department to a person pursuant to M.G.L. c. 21E and/or 310 CMR 40.0000 shall be deemed to be issued by the Department as follows:

- (a) if served in hand, the document shall be deemed to be issued on the date when delivered:
 - 1. personally to the person; or
 - 2. personally to any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service; or
 - 3. at the person's last known address in the Commonwealth; or
 - 4. at the last known address of any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service; or
- (b) if given by mail (either regular mail or certified mail, return receipt requested), the document shall be deemed to be issued on the date of mailing.

(3) Determining Date of Receipt of Document Issued by the Department. Each document given by the Department to a person pursuant to M.G.L. c. 21E and/or 310 CMR 40.0000 shall be deemed to be received by said person as follows:

- (a) if served in hand, the document shall be deemed to be received when delivered:
 - 1. personally to the person; or
 - 2. personally to any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service; or
 - 3. at the person's last known address in the Commonwealth; or
 - 4. at the last known address of any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service; or
- (b) if given by certified mail, return receipt requested, the document shall be deemed to be received either:
 - 1. when signed for by:
 - a. the person; or
 - b. the person's officer, employee, or agent, including, without limitation, any officer, employee, or agent, authorized by appointment of the person or by law to accept service;
 - 2. when returned by the U.S. Postal Service to the Department as unclaimed, unless the Department is persuaded that the document was not claimed for reasons beyond the control of the person to whom the document was sent;
- (c) if given by regular mail, the document shall be deemed to be received no later than the third business day after it is mailed to the person, unless the Department is persuaded otherwise by the person to whom the document was mailed.

(4) Determining Date of Receipt of Document Submitted to the Department. Except as provided by 310 CMR 40.0008(5), each document required by, or submitted pursuant to, 310 CMR 40.0000 shall be deemed received by the Department as follows:

- (a) if served in hand, the document shall be deemed to be received on the date when delivered to the appropriate regional office of the Department (*i.e.* the date stamped received), unless the date stamped is rebutted by production of a receipt from the Department; provided, however, that if the date stamped reflects a date within seven days of the date the submittal is due, the submittal shall be deemed to have been received by the due date;

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- (b) if given by regular mail, the document shall be deemed to be received when delivered to the appropriate office of the Department (*i.e.* the date stamped received); provided, however, that if the date stamped reflects a date within seven days of the date the submittal is due, the submittal shall be deemed to have been received by the due date;
- (c) if given by certified mail, return receipt requested, the document shall be deemed to be received when delivered to the appropriate office of the Department (*i.e.* the date stamped received), unless the date stamped is rebutted by production of the return receipt; provided, however, that if the date stamped reflects a date within seven days of the date the submittal is due, the submittal shall be deemed to have been received by the due date; or
- (d) if given by electronic transmission, where the Department provides for submitting the document by such means, the document shall be deemed to be received on the date the transmission is delivered to the Department, except as provided in 310 CMR 40.0008(4)(d)1.:
 - 1. if the date the transmission is delivered to the Department is within seven days of the date the submittal is due, the submittal shall be deemed to have been received by the due date;
 - 2. for documents submitted electronically, submission of a printed copy to the Department shall not be required.

(5) Exceptions.

- (a) Adjudicatory Proceedings. Documents required or permitted to be filed under 310 CMR 1.00: *Adjudicatory Proceedings*, and 310 CMR 5.00: *Administrative Penalty*, shall be filed in accordance with 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.
- (b) Interim Deadlines and Notices of Noncompliance. For purposes of determining whether a person has complied with an Interim Deadline or come into compliance with a requirement by the date specified in a Notice of Noncompliance, each document required to be submitted shall be deemed received by the Department as follows:
 - 1. if served in hand, the document shall be deemed to be received on the date when delivered to the appropriate office of the Department (*i.e.* the date stamped received), unless the date stamped is rebutted by production of a receipt from the Department;
 - 2. if given by regular mail, the document shall be deemed to be received on the date when delivered to the appropriate office of the Department (*i.e.* the date stamped received);
 - 3. if given by certified mail, return receipt requested, the document shall be deemed to be received when delivered to the appropriate office of the Department (*i.e.* the date stamped received), unless the date stamped is rebutted by production of the return receipt; or
 - 4. if given by electronic transmission, the document shall be deemed to be received on the date the transmission is delivered to the Department.
- (c) Presumptive Approval of IRAs. Each written request for approval of an IRA shall be given to the Department by electronic transmittal, certified mail, return receipt requested, or served in hand. Each such submittal shall be deemed received by the Department as follows:
 - 1. if served in hand, the document shall be deemed to be received on the date when delivered to the appropriate office of the Department (*i.e.* the date stamped received), unless the date stamped is rebutted by production of a receipt from the Department;
 - 2. if given by certified mail, return receipt requested, the document shall be deemed to be received when delivered to the appropriate office of the Department (*i.e.* the date stamped received), unless the date stamped is rebutted by production of the return receipt; or
 - 3. if given by electronic transmission, the document shall be deemed to be received on the date the transmission is delivered to the Department.
- (d) Notification of Releases, Threats of Release and Imminent Hazards. Each notification required by 310 CMR 40.0300 shall be given to the Department (*i.e.* received) as follows:
 - 1. if given orally, the notification shall be deemed to be received on the date and at the time when communicated in person or by telephone;
 - 2. if given in writing and served in hand, the notification shall be deemed to be received on the date when delivered to the appropriate office of the Department (*i.e.* the date stamped received), unless the date stamped is rebutted by production of a receipt from the Department;

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- 3. if given in writing by regular mail, the notification shall be deemed to be received on the date when delivered to the appropriate office of the Department (*i.e.* the date stamped received);
- 4. if given in writing by certified mail, return receipt requested, the notification shall be deemed to be received on the date when delivered to the appropriate office of the Department (*i.e.* the date stamped received), unless the date stamped is rebutted by production of the return receipt; or
- 5. if given by electronic transmission, the notification shall be deemed to be received on the date the transmission is delivered to the Department.

40.0009: Certification of Submittals

(1) Any person undertaking a response action shall include the following written declaration when expressly required by 310 CMR 40.0000, including, but not limited to, with any Release Notification Form, Status Report, Completion Statement, Phase V Report, Permanent or Temporary Solution Statement, Tier Classification Submittal, LSP Evaluation Opinion, Tier Classification Extension Submittal, Tier Classification Transfer Submittal, Periodic Review Opinion, Final Inspection Report, Construction Plan and Specifications, Operation, Maintenance and/or Monitoring Plan, Bill of Lading, Downgradient Property Status Submittal, Modification of Downgradient Property Status Submittal, or other LSP Opinion submitted to the Department pursuant to the MCP:

"I, _____, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this submittal, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the person or entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate or incomplete information."

By: _____

Signature Date

Title

For: _____

Name of person or entity

- (2) The written declaration in 310 CMR 40.0009(1) required of a person undertaking a response action shall be made by the highest ranking individual(s) having day-to-day responsibility for the performance of the response action which is the subject of the submittal. The written declaration shall not be made by the Licensed Site Professional engaged or employed by the RP, PRP or Other Person to render Professional Services with respect to the site, unless the Licensed Site Professional's client or employer has authorized him or her in writing to act as his or her agent for the purpose of making the written declaration.
- (3) The written declaration required by 310 CMR 40.0009(1) shall include the signature of each person making the submittal, the date on which each such person makes his or her attestation and the position or office of each such person.
- (4) Each submittal filed with the Department pursuant to 310 CMR 40.0000 shall be accompanied by a completed transmittal form established by the Department for such purposes.
- (5) No person filing a submittal required by M.G.L. c. 21E or 310 CMR 40.0000 with the Department shall alter, modify or nullify the contents of the transmittal form established by the Department for such purposes without the express approval of the Department.

40.0009: continued

(6) The Department may require any person providing information required to be submitted to the Department pursuant to M.G.L. c. 21E, 310 CMR 40.0000, or any order issued or determination made by the Department pursuant to M.G.L. c. 21E and 310 CMR 40.0000, to include the written declaration set forth in 310 CMR 40.0009(1).

40.0010: Effect of Orders and Appeals

(1) The issuance of an order under M.G.L. c. 21E, §§ 9 or 10, or any appeal of an order issued under M.G.L. c. 21E, § 9, shall not prevent the Department from issuing any future order(s) or from taking any other action authorized by law, including, but not limited to, taking or arranging for one or more response actions at the disposal site which is the subject of the order on appeal.

(2) While an appeal from an order issued under M.G.L. c. 21E, § 9, is pending, the Department may provide, pursuant to M.G.L. c. 21E, § 10(b), for the order or any part thereof to become provisionally effective and enforceable immediately if the Department finds that an Imminent Hazard exists or could result pending avoidable delay in compliance.

(3) If the event described in 310 CMR 40.0010(2) occurs, those parts of the order which become provisionally effective and enforceable immediately shall not be subject to the provisions of M.G.L. c. 30A, or any other law, governing adjudicatory proceedings. Any person who receives and complies with the terms of such an order may petition the Department for reimbursement for the reasonable costs of such compliance in accordance with M.G.L. c. 21E, § 10(b)(2), and 310 CMR 40.1200.

(4) While an appeal from a permit decision or order is pending, the Department may undertake such response actions as it deems reasonably necessary to protect health, safety, public welfare or the environment.

40.0011: Confidentiality of Information

(1) Any information, document, or particular part thereof, obtained by the Department or its Contractors pursuant to M.G.L. c. 21E, upon request shall be confidential, and shall not be considered to be a public record, when it is determined by the Commissioner in accordance with 310 CMR 3.00: *Access to and Confidentiality of Department Records and Files* that such information, record, or particular part thereof, relates to secret processes, methods of manufacture or production, or that such information, record, or particular part thereof, if made public, would divulge a trade secret.

(2) The Department shall be under no obligation to act upon any such request for confidentiality that is not made and substantiated in accordance with 310 CMR 3.24: *Requests for Protecting the Confidentiality of Trade Secrets*.

(3) 310 CMR 40.0011 shall not prevent disclosure of any information necessary for an enforcement or cost recovery action or to comply with CERCLA or FWPCA or as otherwise provided by 310 CMR 3.00: *Access to and Confidentiality of Department Records and Files*.

40.0013: Presumption of Irreparable Harm

Any violation of M.G.L. c. 21E, 310 CMR 40.0000, or any order or determination issued thereunder, shall be presumed to constitute irreparable harm to health, safety, public welfare, and the environment. Such presumption may be rebutted by a preponderance of the evidence.

40.0014: Document Retention

(1) General Requirements. Each person who submits one or more LSP Opinions to the Department shall preserve and maintain, or arrange for the preservation and maintenance of, all documents in his or her possession, custody or control, and shall arrange for the preservation and maintenance of all documents prepared or received by the Licensed Site Professional who rendered the LSP Opinion in the course of providing Professional Services pertaining to the site, that are material to the LSP Opinion, including, but not limited to, documents of sufficient detail

40.0014: continued

to substantiate the facts, data, conclusions and other information set forth in the LSP Opinion and any other documents material to the qualifications and limitations set forth therein. Such documents shall be kept at one or more locations reasonably accessible to the Department and in such form as to enable the Department to ascertain whether the response actions which are the subject of the LSP Opinion have been performed in compliance with the provisions of M.G.L. c. 21E, 310 CMR 40.0000 and any permit or order issued thereunder. Each such person shall make those documents available to the Department for inspection upon request. For purposes of 310 CMR 40.0014(1), the "person who submits one or more LSP Opinions to the Department" refers to the RP, PRP or Other Person who employed or engaged the LSP whose LSP Opinion is the subject of the submittal.

(2) Period of Retention. Any person required by 310 CMR 40.0014(1) to preserve and maintain any document shall preserve and maintain those documents until at least five years has passed since the date of the Department's receipt of either a Permanent Solution Statement or No Further Action Letter for the disposal site that is the subject of the submittal, or for the duration of the design life of the Permanent Solution, whichever is later. For purposes of 310 CMR 40.0014(2), the term "design life" means the period of time during which any physical structures are intended to maintain a level of No Significant Risk at a disposal site, as stated in a Permanent Solution Statement or No Further Action Letter.

40.0015: Content of Waste Site Cleanup Activity Opinions

(1) Each and every LSP Opinion submitted to the Department pursuant to M.G.L. c. 21E or 310 CMR 40.0000 shall bear the signature and seal of the LSP who rendered the LSP Opinion and the date on which the LSP Opinion was rendered.

(2) An LSP rendering an LSP Opinion for submittal to the Department shall:

- (a) identify in the LSP Opinion the material facts, data and other information known by him or her about the disposal site that is pertinent to the LSP Opinion; and
- (b) disclose and explain in the LSP Opinion the material facts, data, other information, and qualifications and limitations known by him or her which may tend to support or lead to an LSP Opinion contrary to, or significantly different from, the one expressed.

(3) The submittals required by 310 CMR 40.0000, which are LSP Opinions, include, but are not limited to, the following:

- (a) any Status Report submitted in accordance with 310 CMR 40.0000, including, but not limited to:
 - 1. any Immediate Response Action Status Report submitted pursuant to 310 CMR 40.0425;
 - 2. any Release Abatement Measure Status Report submitted pursuant to 310 CMR 40.0445;
 - 3. any Utility-related Abatement Measure Status Report submitted pursuant to 310 CMR 40.0465;
- (b) any Completion Statement submitted pursuant to 310 CMR 40.0000, including, but not limited to:
 - 1. any Immediate Response Action Completion Statement submitted pursuant to 310 CMR 40.0427, except as otherwise provided pursuant to 310 CMR 40.0411(3);
 - 2. any Release Abatement Measure Completion Statement submitted pursuant to 310 CMR 40.0446;
 - 3. any Utility-related Abatement Measure Completion Statement submitted pursuant to 310 CMR 40.0466;
 - 4. any Phase I Completion Statement submitted pursuant to 310 CMR 40.0484;
 - 5. any Phase II Completion Statement submitted pursuant to 310 CMR 40.0836;
 - 6. any Phase III Completion Statement submitted pursuant to 310 CMR 40.0862;
 - 7. any Phase IV Completion Statement submitted pursuant to 310 CMR 40.0879; and
 - 8. any Phase V Completion Statement submitted pursuant to 310 CMR 40.0893;
- (c) any Phase Report submitted pursuant to 310 CMR 40.0000, including, but not limited to:

40.0015: continued

1. any Scope of Work submitted pursuant to 310 CMR 40.0510(2)(f) or 310 CMR 40.0834;
 2. any Phase II Report submitted pursuant to 310 CMR 40.0835;
 3. any Remedial Action Plan submitted pursuant to 310 CMR 40.0861;
 4. any Notice of Commencement of Work submitted pursuant to 310 CMR 40.0870;
 5. any Remedy Implementation Plan submitted pursuant to 310 CMR 40.0874;
 6. any Final Inspection Report submitted pursuant to 310 CMR 40.0878;
 7. any Phase IV Status and Remedial Monitoring Report submitted pursuant to 310 CMR 40.0877;
 8. any Phase V Status and Remedial Monitoring Reports submitted pursuant to 310 CMR 40.0892; and
 9. any As-built Construction Report submitted pursuant to 310 CMR 40.0875;
- (d) any Immediate Response Action Plan submitted pursuant to 310 CMR 40.0424, except as otherwise provided pursuant to 310 CMR 40.0411(2);
- (e) any Release Abatement Measure Plan submitted pursuant to 310 CMR 40.0444;
- (f) any Permanent Solution Statement or Temporary Solution Statement submitted pursuant to 310 CMR 40.1000, except as otherwise provided pursuant to 310 CMR 40.1056(1)(g);
- (g) any LSP Tier Classification Opinion submitted pursuant to 310 CMR 40.0500;
- (h) any Periodic Review Opinion submitted pursuant to 310 CMR 40.1050;
- (i) any Activity and Use Limitation Opinion submitted pursuant to 310 CMR 40.1000;
- (j) any Audit Follow-up Plan submitted pursuant to 310 CMR 40.1160;
- (k) any Post-Audit Completion Statement submitted pursuant to 310 CMR 40.1170;
- (l) any Downgradient Property Status Opinion submitted pursuant to 310 CMR 40.0180; and
- (m) any Remedy Operation Status Opinion submitted pursuant to 310 CMR 40.0893.
- (4) No provision in the MCP is intended to render an LSP Opinion a warranty or guaranty; provided, however, that an Opinion shall be considered a representation:
- (a) that the Professional Services associated therewith were provided in accordance with the applicable standards of care;
 - (b) that the response action(s) which is (are) the subject of the Opinion was (were) performed in accordance with the applicable provisions of M.G.L. c. 21E, 310 CMR 40.0000, and any DEP order(s), permit(s) or approval(s); and
 - (c) that the conclusion(s) expressed therein is (are) based upon the rendering LSP's professional judgment and reflect his or her knowledge, information and belief.
- (5) Any rider annexed to an LSP Opinion concerning professional liability exposure shall be deemed void by the Department for enforcement purposes to the extent that it is inconsistent with 310 CMR 40.0009(5) or otherwise serves to compromise or diminish the content or meaning of the Opinion for the Department's purposes under M.G.L. c. 21E and/or the MCP. The Department's receipt, acceptance or approval of any document which contains such a rider, shall not be construed to imply Department approval or endorsement of the liability management mechanism or practice contained therein or the content thereof.
- (6) No provision in 310 CMR 40.0000 shall be construed to require that an LSP render a conclusion as to whether a person performing a response action has complied with a deadline or time period for the rendering of an LSP Opinion established by, or pursuant to, 310 CMR 40.0000.
- (7) Electronic Submittal of Waste Site Cleanup Activity Opinions.
- (a) On or after January 1, 2009, all LSP Opinions shall be submitted to the Department electronically on a form established by the Department for such purposes.
 - (b) The date of receipt of LSP Opinions by the Department shall be determined as specified in 310 CMR 40.0008(4).
 - (c) For LSP Opinions submitted electronically, submission of a printed copy to the Department shall not be required.

(40.0016: Laboratory Certification: Reserved)

40.0017: Environmental Sample Collection and Analyses

- (1) Any person undertaking response actions under the provisions of this Contingency Plan shall ensure that analytical and environmental monitoring data used in support of recommendations, conclusions, or LSP Opinions with respect to assessment, removal, or containment actions is scientifically valid and defensible, and of a level of precision and accuracy commensurate with its stated or intended use.
- (2) Procedures and methodologies employed for the collection and analysis of soil, sediment, water, vapor, air, and/or waste samples shall consist of:
 - (a) methods published by the Department, EPA, the American Society for Testing and Materials (ASTM), the American Public Health Association (APHA), the National Institute for Occupational Safety and Health (NIOSH), the American Water Works Association (AWWA), and other organizations with expertise in the development of standardized analytical testing methods;
 - (b) modification of published methods, provided that all modifications are completely documented; or
 - (c) unpublished methods, including analytical screening methods, provided that such methods are scientifically valid, are of a known and demonstrated level of precision and accuracy, and are completely described and documented in response action submittals.
- (3) All response action submittals to the Department under these regulations that contain the results of sample collection and analyses shall include the following information:
 - (a) the date, location, and time of sampling, and the name of the individual who collected the sample;
 - (b) specifications on any sample filtration or preservation procedures;
 - (c) the date of receipt of the sample at the laboratory, and the date(s) the sample was extracted and/or analyzed;
 - (d) the name and address of the laboratory, and the certification identification number and status of the laboratory, if certified;
 - (e) the sample matrix description and identification number(s);
 - (f) the sample preparation and/or analytical method(s) employed;
 - (g) the results of the analysis, in clearly expressed concentration units;
 - (h) the detection limit of each reported analyte based upon actual analytical conditions;
 - (i) details on any known conditions or findings which may affect the validity of analytical data, including unsatisfactory results obtained on quality assurance/ quality control blank, duplicate, surrogate or spiked samples; and
 - (j) any other information or data which may be required to explain or document provided data, including chain of custody forms, where appropriate, or other information requested by the Department based upon its review and evaluation of submitted documents.
- (4) Laboratory and other reports of sampling analyses of aqueous samples shall be reported as mass per unit volume and solid samples shall be reported as mass per unit mass, on a dry weight basis, unless other reporting units are more appropriate.
- (5) Any person undertaking response actions shall ensure that sample collection and analyses is performed by persons who are qualified by education, training and experience.
- (6) Any time environmental samples are taken at a property by a person(s) conducting response action(s), other than on behalf of the owner of the property, the person(s) conducting response actions shall comply with the notification provisions of 310 CMR 40.1403(10).

40.0018: Health and Safety Procedures

- (1) Any person undertaking response actions shall implement health and safety procedures designed to protect health, safety, public welfare and the environment during the performance of response actions. Such procedures shall include, without limitation, the following:
 - (a) measures to protect sensitive human populations from exposure to oil and/or hazardous material;
 - (b) the institution of air monitoring activities, if necessary, to protect the public from exposure to gases and air-borne particulates;

40.0018: continued

(c) measures that may be necessary to contain oil and/or hazardous material during the performance of response actions, including:

1. measures to control dust and other environmental media (*e.g.* wetting soils);
2. measures to decontaminate vehicles and equipment to minimize the spread of contaminated soil from the disposal site;
3. measures to secure on-site excavations and stockpiles of contaminated materials; and
4. discontinuance of response actions where necessary to protect public health and safety.

(2) The scope and detail of health and safety procedures shall be commensurate with the degree and nature of the risks posed to human and ecological populations by the disposal site and/or response actions. Standardized health and safety plans may be appropriate for routine activities conducted during response actions.

(3) Any person undertaking a response action shall ensure that a worker health and safety plan is implemented to the extent required by the federal Occupational Safety and Health Administration (OSHA) under the Occupational Safety and Health Act of 1970, 29 U.S.C. 651 *et seq.*, and any other applicable federal, state or local law.

40.0019: Violations of Environmental Restrictions

(1) No person shall violate, suffer, allow or cause any person to violate, an Environmental Restriction or other covenant held by the Department pursuant to M.G.L. c. 21E, § 6.

(2) For purposes of identifying and holding persons responsible for Response Action Costs and damages arising out of the violation of an Environmental Restriction or other covenant held by the Department pursuant to M.G.L. c. 21E, § 6, the Department shall consider taking action against only those persons who have violated, suffered, allowed or caused such persons to violate, the Environmental Restriction or other restrictive covenant. In determining whether to initiate enforcement action against any other person who may be liable for such costs or damages under M.G.L. c. 21E, the Department shall consider each of the following:

- (a) whether the Environmental Restriction or other restrictive covenant has been recorded and/or registered with the appropriate registry of deeds and/or land registration office in accordance with 310 CMR 40.1070 through 40.1099;
- (b) whether a level of No Significant Risk that relies on the Environmental Restriction or other Covenant has existed or has been achieved at the disposal site as set forth in the Permanent or Temporary Solution Statement;
- (c) whether such person has taken appropriate steps to prevent the violation; and
- (d) any other factor the Department deems relevant.

(3) No provision of 310 CMR 40.0000 shall be construed to limit the Department's authority to take or arrange, or to require any person to perform, any response action authorized by M.G.L. c. 21E which the Department deems necessary to protect health, safety, public welfare or the environment.

(4) No provision of 310 CMR 40.0000 shall be construed to relieve any person from any obligation for Response Action Costs or damages related to a site or disposal site for which that person is liable under M.G.L. c. 21E or from any obligation for any administrative, civil or criminal penalty, fine, settlement, or other damages.

40.0020: Violations of a Permanent Solution or Temporary Solution

(1) If the activities, uses, and/or exposures upon which a Permanent Solution or Temporary Solution Statement is based change at any time to cause human or environmental exposure, or an increased potential for human or environmental exposure, to oil and/or hazardous material, without an evaluation by an LSP in accordance with 310 CMR 40.1080, where applicable, and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or No Substantial Hazard, then the owner and operator of the property or properties subject to the Permanent Solution or Temporary Solution Statement at the time that the activities, uses, and/or exposures change, and any person liable under M.G.L. c. 21E for the disposal site who has knowledge of such, shall:

40.0020: continued

- (a) notify the Department, in accordance with the procedures set forth in 310 CMR 40.0300, immediately upon gaining knowledge of any of the following:
 - 1. any such change in activity, use and/or exposure;
 - 2. any level of oil and/or hazardous material above an applicable Reportable Concentration;
 - 3. any release and/or threat of release of oil and/or hazardous material that results from any such change in activity or use; or
 - 4. any Imminent Hazard that results from such activities, uses, and/or exposures; and
- (b) undertake any and all response actions required by M.G.L. c. 21E and 310 CMR 40.0000.

(2) For purposes of identifying and holding persons responsible for Response Action Costs and damages arising out of the violation of 310 CMR 40.0020(1), the Department shall consider taking action only against those persons who violated, suffered, allowed or caused such persons to violate, such provision. In determining whether to initiate enforcement action against any other person who may be liable for such costs or damages under M.G.L. c. 21E, the Department shall consider the factors set forth in 310 CMR 40.0019(2).

(3) No provision of 310 CMR 40.0000 shall be construed to limit the Department's authority to take or arrange, or to require any RP or PRP to perform, any response action authorized by M.G.L. c. 21E which the Department deems necessary to protect health, safety, public welfare or the environment.

(4) No provision of 310 CMR 40.0000 shall be construed to relieve any person from any obligation for Response Action Costs or damages related to a site or disposal site for which that person is liable under M.G.L. c. 21E or from any obligation for any administrative, civil or criminal penalty, fine, settlement, or other damages.

(5) If the activities, uses, and/or exposures upon which the selected remedy is based at any adequately regulated disposal site subject to CERCLA at which a Notice of Activity and Use Limitation has been implemented change at any time to cause human or environmental exposure, or an increased potential for human or environmental exposure, to oil and/or hazardous material, without an evaluation by a qualified hazardous waste site cleanup professional, or without additional response actions, in each case as required by 310 CMR 40.1080(4), then the owner and operator of the property or properties at which the Notice of Activity and Use Limitation has been implemented, and any person liable under M.G.L. c. 21E for the disposal site who has knowledge of such change in activity, use and/or exposure, shall:

- (a) notify the Department in accordance with the procedures set forth in 310 CMR 40.0300 and EPA Region 1 in writing immediately upon gaining knowledge of any such change in activity, use and/or potential exposure; and
- (b) undertake any and all necessary response actions, including any response actions necessary to restore the remedy selected under CERCLA and any Permanent Solution or Remedy Operation Status that may have existed at such disposal site pursuant to 310 CMR 40.0111(10) or 310 CMR 40.0111(11) prior to such change in activities, uses and/or exposures.

40.0021: Unlawful Interference with Response Actions

No person shall falsify, tamper with, alter, destroy, disturb or otherwise unlawfully interfere with any response action, including, but not limited to, any recovery or control mechanism or system, or any monitoring device or method, which any person has undertaken, is undertaking or intends to undertake, or which any person is required to perform or maintain, pursuant to M.G.L. c. 21E, 310 CMR 40.0000 or any order or determination issued by the Department.

40.0022: Accurate and Timely Submittal of Documents

(1) Except as provided by 310 CMR 40.0025, each person who is required by M.G.L. c. 21E, 310 CMR 40.0000 or any order or determination of the Department, to make one or more submittals to the Department shall make each submittal by the deadline or within the time period imposed therein.

(2) No person shall make, or cause any person to make, any false, inaccurate, incomplete or misleading statement in any document which that person submits, or causes any person to submit, to the Department pursuant to M.G.L. c. 21E, 310 CMR 40.0000 or any order or determination issued by the Department.

40.0023: Accurate and Complete Record-keeping

- (1) No person shall make, or cause any person to make, any false, inaccurate, incomplete or misleading statement in any document which that person keeps or is required to keep pursuant to M.G.L. c. 21E, 310 CMR 40.0000 or any permit or order issued by the Department.
- (2) No person shall knowingly fail to fully complete any document that such person is required to submit to the Department pursuant to M.G.L. c. 21E, 310 CMR 40.0000 or any permit or order issued by the Department.

40.0024: Timely Action and Anticipatory Noncompliance

- (1) Except as provided by 310 CMR 40.0025 and 40.0172, each person undertaking one or more response actions shall perform each such response action, or portion of a response action, by the deadline for taking the action imposed by M.G.L. c. 21E, 310 CMR 40.0000 or any order or determination issued by the Department.
- (2) In the event that the Department finds that a person who is undertaking a response action will likely fail to comply with any deadline for taking such action imposed by 310 CMR 40.0000 or any order or determination issued by the Department, the Department may require that person to provide the Department with reasonable assurance of his or her ability to perform the action in a timely manner, including, a compliance schedule, financial assurance and such other assurances as the Department reasonably deems necessary.
- (3) 310 CMR 40.0024(2) shall not be construed to limit the Department's authority to establish Interim Deadlines in accordance with 310 CMR 40.0167.

40.0025: Extensions of Deadlines and Time Periods for *Force Majeure*

- (1) Except as provided by 310 CMR 40.0025(2), if any *force majeure* occurs which causes or contributes to any delay in compliance with any deadline or time period specified in M.G.L. c. 21E, 310 CMR 40.0000 or any order or determination issued by the Department, except a deadline or time period for providing notification of a release or threat of release of oil and/or hazardous material, or an Imminent Hazard, as required by 310 CMR 40.0300, the person(s) who is responsible for performing the response action shall notify the Department in writing promptly upon learning of the delay, and prior to the running of any such deadline or time period, and state the anticipated length and cause of the delay, the measure or measures to be taken to minimize the delay and a timetable for implementing those measures, and shall take appropriate measures to avoid or minimize any delay.
- (2) Notwithstanding 310 CMR 40.0025(1), in the event of any delay in compliance with a deadline established by 310 CMR 40.0560, the person undertaking response actions shall comply with the requirements and procedures set forth in 310 CMR 40.0560.

40.0027: Remedial Monitoring Report

- (1) For a disposal site for which the requirement to submit Remedial Monitoring Reports applies as of April 3, 2006, the first Remedial Monitoring Report shall be submitted:
 - (a) in accordance with 310 CMR 40.0425(7)(a) when the remedial action that involves Active Operation and Maintenance is addressing an Imminent Hazard or Condition of Substantial Release Migration; or
 - (b) concurrently with the submittal of the next Status Report following the commencement of the remedial action that involves Active Operation and Maintenance when the remedial action is addressing conditions that do not pose an Imminent Hazard or Condition of Substantial Release Migration.
- (2) Except as provided at 310 CMR 40.0027(3), a Remedial Monitoring Report shall document all monitoring and operational information relevant to the Active Operation and Maintenance of an Active Remedial System, Active Exposure Pathway Mitigation Measure, or Active Remedial Monitoring Program during the reporting period and since the submittal of any previous Remedial Monitoring Report. Such information includes, as applicable:
 - (a) operating status of Active Remedial Systems or Active Exposure Pathway Mitigation Measure, including any system shutdown and the date/duration of shutdown;
 - (b) date(s) and number of monitoring events;
 - (c) effluent concentrations;
 - (d) identification of any discharges above permissible discharge concentrations;
 - (e) recovery rates and/or volumes;
 - (f) discharge volumes;
 - (g) date, location, type, and volume of Remedial Additives applications;
 - (h) groundwater data;
 - (i) pressure measurements; and/or
 - (j) related maps, graphs or diagrams;

40.0027: continued

- (3) Remedial Monitoring Reports shall not be required for:
 - (a) Active Operation and Maintenance of an Active Remedial System that is limited to window fans deployed as a temporary measure to vent vapors within a building. Information related to the operation of such window fans shall be included in the next applicable Status Report; or
 - (b) Active Operation and Maintenance of an Active Exposure Pathway Mitigation Measure implemented as a Permanent Solution with Conditions after the submittal of a Permanent Solution Statement and operated and maintained pursuant to 310 CMR 40.1025.
- (4) Except as provided in 310 CMR 40.0027(3), Remedial Monitoring Reports shall be required until the Active Operation and Maintenance of an Active Remedial System, Active Exposure Pathway Mitigation Measure, or Active Remedial Monitoring Program is terminated.
- (5) Remedial Monitoring Reports shall be submitted to the Department electronically on a form established by the Department for such purposes. The date of receipt of a Remedial Monitoring Report by the Department shall be determined as specified in 310 CMR 40.0008(4).

40.0028: Well Maintenance and Security

Any well installed or constructed for the purposes of sampling, monitoring or remediating environmental media or environmental conditions as part of response actions conducted under the MCP shall be maintained and secured throughout its period of service and until it is properly decommissioned to prevent the introduction of contaminants to the subsurface environment or the exacerbation of groundwater contamination by the vertical movement of water within the borehole or annular space.

40.0030: Management Procedures for Remediation Waste

The provisions of 310 CMR 40.0031 through 40.0039, cited collectively as 310 CMR 40.0030, establish requirements and procedures for the management of Remediation Waste.

40.0031: General Provisions for the Management of Remediation Waste

- (1) RPs, PRPs, and Other Persons undertaking response actions shall manage Remediation Waste in a manner that ensures the protection of health, safety, public welfare and the environment, and shall handle, store, transport, treat, recycle, reuse, dispose, or discharge Remediation Waste in compliance with the provisions of 310 CMR 40.0030 and all other applicable federal, state, and local laws, regulations, and bylaws.
- (2) RPs, PRPs, and Other Persons conducting response actions shall consign, convey and/or transport Remediation Waste only to facilities and locations licensed, permitted, or approved to accept such materials by appropriate federal, state or local authorities.
- (3) Response actions involving Remediation Waste which are conducted within the boundaries of a disposal site in compliance with the provisions of 310 CMR 40.0000 shall be considered, for the purposes of 310 CMR 30.801(11), remedial actions initiated by the Department under the provisions of M.G.L. c. 21E, except for those response actions involving Uncontainerized Hazardous Waste for which the Department has made a determination, pursuant to 310 CMR 40.0033(5), to require compliance with all or part of 310 CMR 30.000: *Hazardous Waste*. Otherwise, a valid license issued pursuant to M.G.L. c. 21C and 310 CMR 30.000: *Hazardous Waste* shall not be required to manage Remediation Waste within the boundaries of a disposal site, provided such Remediation Waste is managed in compliance with M.G.L. c. 21E and 310 CMR 40.0000.
- (4) Response actions involving soil, groundwater, and Remediation Waste which are conducted in compliance with the provisions of 310 CMR 40.0032(3), 40.0034, and 40.0045(6) are deemed to be response actions conducted in compliance with the approval provisions of M.G.L. c. 21E for the purposes of 310 CMR 30.252(2).

40.0031: continued

- (5) Remediation Waste which meet the criteria defining a listed hazardous waste or which are themselves a characteristic hazardous waste shall be accumulated, treated, and stored or otherwise managed at a disposal site in a manner that achieves a level of control and protection equivalent to that provided by the technical and management requirements of 310 CMR 30.000: *Hazardous Waste*.
- (6) Remediation Waste, Containerized Waste, and Uncontainerized Waste which meet the criteria defining a listed or characteristic hazardous waste shall, when transported from a disposal site, comply with the requirements of 310 CMR 30.000: *Hazardous Waste*.
- (7) All Remediation Waste shall be removed from a disposal site as soon as possible, and in all cases:
- (a) within 120 days of its initial excavation or collection, unless it is managed in accordance with an Immediate Response Action Plan, Release Abatement Measure Plan, or Remedy Implementation Plan submitted to the Department within this 120 day timeframe that provides specific actions, schedule and procedures for on-site storage, treatment, reuse, or recycling of such Remediation Waste ; or
 - (b) within 90 days of its initial excavation or collection if such Remediation Waste meets the criteria defining a listed or characteristic hazardous waste.
- (8) Remediation Waste shall be managed consistent with 310 CMR 40.0191(3) and
- (a) shall not be mixed with environmental media that is uncontaminated or contains significantly lower concentrations of oil and/or hazardous materials, except for the addition of Remedial Additives or amendments to achieve specific remedial goals, not including dilution; and
 - (b) shall continue to be managed as Remediation Waste even if mixed with non-Remediation Waste.

40.0032: Contaminated Media and Contaminated Debris

- (1) Contaminated Media and Contaminated Debris containing oil and/or waste oil at levels equal to or greater than an applicable Reportable Concentration specified in 310 CMR 40.0300 and 40.1600, and that are not otherwise a hazardous waste, shall be managed in compliance with the provisions of 310 CMR 30.252(1) or, in accordance with the provisions of 310 CMR 30.252(2), shall be managed under the Bill of Lading process described in 310 CMR 40.0034 or under a Hazardous Waste Manifest in accordance with 310 CMR 30.000, when they are transported from a disposal site.
- (2) Contaminated Media and Contaminated Debris containing one or more hazardous materials at levels equal to or greater than an applicable Reportable Concentration specified in 310 CMR 40.0300 and 40.1600, and which are not a hazardous waste, shall be managed under the Bill of Lading process described in 310 CMR 40.0034 or under a Hazardous Waste Manifest in accordance with 310 CMR 30.000 when they are transported from a disposal site.
- (3) Soils containing oil or waste oil at concentrations less than an otherwise applicable Reportable Concentration and that are not otherwise a hazardous waste, and soils that contain one or more hazardous materials at concentrations less than an otherwise applicable Reportable Concentration and that are not a hazardous waste, may be transported from a disposal site without notice to or approval from the Department under the provisions of this Contingency Plan, provided that such soils:
- (a) are not disposed or reused at locations where the concentrations of oil or hazardous materials in the soil would be in excess of a release notification threshold applicable at the receiving site, as delineated in 310 CMR 40.0300 and 40.1600; and
 - (b) are not disposed or reused at locations where existing concentrations of oil and/or hazardous material at the receiving site are significantly lower than the levels of those oil and/or hazardous materials present in the soil being disposed or reused.
- (4) Contaminated Groundwater and Contaminated Surface Water that is collected, treated, conveyed, withdrawn, contained or discharged at or from a disposal site as part of a response action shall be managed in compliance with applicable provisions of 310 CMR 40.0030 and 40.0040.

(5) Contaminated Media and Contaminated Debris managed under the Bill of Lading process described in 310 CMR 40.0034 shall not be disposed of at a land disposal facility if a feasible alternative exists that involves the reuse, recycling, destruction, and/or detoxification of such materials. An evaluation of whether such an alternative is feasible shall consider:

40.0032: continued

- (a) the volume and physical characteristics of the Contaminated Media and Debris;
- (b) the levels of oil and/or hazardous materials present within the Contaminated Media and Debris; and
- (c) the relative costs of management options.

40.0033: Uncontainerized Waste

- (1) Remedial actions involving the storage, collection, treatment, disposal, containment, recycling or reuse of uncontainerized oil or waste oil within the boundaries of a disposal site shall be conducted in compliance with 310 CMR 40.0000.
- (2) RPs, PRPs and Other Persons who store Uncontainerized Hazardous Waste at a site, excluding oil or waste oil, shall do so in accordance with the management requirements of 310 CMR 30.000: *Hazardous Waste*. When storing such waste at a site for a period greater than 90 days the RP, PRP, or Other Person shall provide, for the purposes of 310 CMR 30.801(11), written documentation to the Department in the next response action submittal that:
 - (a) the storage complies with the management requirements of 310 CMR 30.000: *Hazardous Waste*;
 - (b) provides a description of the type, quantity, and generation rate of any Uncontainerized Hazardous Waste being stored or accumulated;
 - (c) provides justification for storage longer than 90 days; and
 - (d) includes a projected timeline for storage of such wastes.
- (3) RPs, PRPs and Other Persons conducting remedial actions that involve the treatment, disposal, recycling or reuse of Uncontainerized Hazardous Waste, excluding oil or waste oil, within the boundaries of a disposal site shall submit a written notice to the Department a minimum of 60 days prior to the initiation of such activities, except for response actions conducted as part of an Immediate Response Action.
- (4) The notice required by 310 CMR 40.0033(3) shall include, without limitation, the following:
 - (a) the address and Release Tracking Number(s) for the site;
 - (b) the type of activity and why the activity may be subject to permitting requirements of 310 CMR 30.000: *Hazardous Waste*;
 - (c) the type and quantity of Uncontainerized Hazardous Waste;
 - (d) a schedule; and
 - (e) a discussion of the reason for and goal of the activity.
- (5) The Department shall review notices made pursuant to 310 CMR 40.0033(3) and determine whether the remedial action shall comply with all or part of the permitting requirements of 310 CMR 30.000. In determining whether or not compliance with all or only portions of the permitting requirements of 310 CMR 30.000: *Hazardous Waste* is required, the Department shall consider, without limitation:
 - (a) the volume and toxicity of the Uncontainerized Hazardous Waste;
 - (b) the nature of the proposed remedial action; and
 - (c) the potential for the proposed remedial action to impact health, safety, public welfare, and the environment. If the Department does not issue a written notification that such remedial action requires compliance with all or part of the permitting requirements of 310 CMR 30.000: *Hazardous Waste* within 45 days of receiving such notice, the remedial action shall be considered, for the purposes of 310 CMR 30.801(11), a remedial action initiated by the Department under the provisions of M.G.L. c. 21E.

40.0034: Bill of Lading Process

- (1) Remediation Waste transported from a site under a Bill of Lading process, as described in 310 CMR 40.0030, shall be transported under a Bill of Lading in a form established by the Department for such purposes, which shall contain, without limitation, the information, Opinions, and certifications listed at 310 CMR 40.0035.

40.0034: continued

- (2) Remediation Waste managed under a Bill of Lading process shall not be transported from a site until all information, opinions, and certifications required in 310 CMR 40.0035(1)(a) through (i) are obtained by the RP, PRP, or Other Person conducting response actions.
- (3) Except as provided in 310 CMR 40.0034(4), Remediation Waste which is managed under the Bill of Lading process:
 - (a) shall only be stored at the site of excavation or collection;
 - (b) shall be stored in a secure manner protective of health, safety, public welfare and the environment in accordance with 40.0036; and
 - (c) shall be removed from the site of excavation or collection as soon as possible, and in all cases within 120 days of its initial excavation or collection, unless an Immediate Response Action Plan, Release Abatement Measure Plan, or Remedy Implementation Plan is submitted to the Department within this 120 day timeframe, and in accordance with all applicable provisions of 310 CMR 40.0000, proposing specific actions and procedures for on-site storage, treatment, reuse, or recycling of such Remediation Waste.
- (4) Remediation Waste containing oil or waste oil, but which is not otherwise a hazardous waste, and Remediation Waste containing hazardous material which is not a hazardous waste, may be removed from a site for temporary storage at another location owned or operated by the same RP, PRP, or Other Person conducting response actions, or to a facility permitted, licensed or approved to accept such materials provided:
 - (a) the transportation and storage of the Remediation Waste is supervised, managed, or overseen by a Licensed Site Professional in accordance with 310 CMR 40.0035;
 - (b) transportation and storage activities are conducted in a manner that is protective of health, safety, public welfare and the environment in accordance with 310 CMR 40.0036;
 - (c) all Remediation Waste is ultimately transported to an approved treatment, recycling, reuse, or disposal facility within 120 days of its initial excavation or recovery from a disposal site or within a time period specifically approved by the Department as part of its oversight of response actions at such site; and
 - (d) all Remediation Waste removed from an off-site temporary storage location is transported from the temporary storage location in accordance with the Bill of Lading provisions in 310 CMR 40.0035.
- (5) A completed Bill of Lading containing a signature of a representative of the receiving facility or receiving location shall be submitted to the Department within 30 days of the date of final shipment from the disposal site or storage/consolidation area, except for shipments of soils resulting from a Limited Removal Action conducted in accordance with 310 CMR 40.0318.
- (6) A completed Bill of Lading and supporting documentation for shipments of soil resulting from a Limited Removal Action conducted in accordance with 310 CMR 40.0318 shall be retained by the person conducting response actions for a minimum of five years or for as long as required by 310 CMR 40.0014, whichever is later.
- (7) The Department reserves the right to impose additional requirements on the management of Remediation Waste under the Bill of Lading process if the Department determines that such materials represent a hazard to health, safety, public welfare or the environment.
- (8) Remediation Waste generated during the performance of a Utility-related Abatement Measure in accordance with 310 CMR 40.0460 which is temporarily stored at another location owned or operated by the person undertaking such response action, or at a facility licensed, permitted, or approved to accept such materials, may be transported back to the site of generation for backfilling or treatment only if:
 - (a) such Remediation Waste containing oil or waste oil is not otherwise a hazardous waste;
 - (b) such Remediation Waste containing hazardous material is not a hazardous waste;
 - (c) such Remediation Waste is returned at or near the original point of excavation for backfilling or treatment within 14 days from the initial date of excavation;
 - (d) such Remediation Waste is stored in a secure manner protective of health, safety, public welfare and the environment, in accordance with 40.0036; and

40.0034: continued

- (e) any Remediation Waste not returned at or near the original point of generation for backfilling or treatment within 14 days is transported in accordance with 310 CMR 40.0030 to an approved treatment, recycling, reuse, or disposal facility within 120 days of the initial date of generation.

40.0035: Bill of Lading Form

- (1) The Bill of Lading shall contain, at a minimum, the following information, opinions, and certifications:
 - (a) the address of the disposal site where the Remediation Waste was originally excavated or collected, and the address of any interim stockpiling, storage, and/or consolidation location;
 - (b) the name, address, and telephone number of the RP, PRP, or Other Person conducting the response action;
 - (c) the name and address of the transporter;
 - (d) the name and address of the receiving facility or location;
 - (e) except for Bills of Lading completed for Limited Removal Actions, as described in 310 CMR 40.0318, the Release Tracking Number for the disposal site where the Remediation Waste originated;
 - (f) the estimated volume of Remediation Waste that will be shipped to the receiving facility;
 - (g) the nature and composition of Remediation Waste that will be shipped to the receiving facility or storage location and the applicable Reportable Concentration reporting category for soil and/or groundwater described at 310 CMR 40.0360 associated with such Remediation Waste;
 - (h) the signature and seal of a Licensed Site Professional related to the rendering of an Opinion on the adequacy of testing and assessment actions undertaken to characterize the Remediation Waste, and on whether the Remediation Waste, as characterized, conforms with permitting and regulatory requirements for acceptance at the receiving facility or location, or the dated signature of an authorized representative of the Department, certifying the adequacy of testing and assessment actions undertaken to characterize the Remediation Waste, and approving of its shipment to the listed receiving facility or location;
 - (i) the dated signature of the RP, PRP, or Other Person conducting the response action, certifying the accuracy and completeness of the Bill of Lading, as specified in 310 CMR 40.0009; and
 - (j) upon completion of all shipping activities, the dated signature of a representative of the receiving facility or location, attesting to the total volume or weight of Remediation Waste received by the facility or location.
- (2) The Bill of Lading, or reproduction of the Bill of Lading, containing all information described in 310 CMR 40.0035(a) through (i), shall accompany each shipment of Remediation Waste transported from a disposal site.

40.0036: Management Requirements for Storing Remediation Waste

- (1) All Remediation Waste shall be stored in a secure manner to prevent exposure to humans and the environment .
- (2) Where practicable, the stockpiling or consolidating of Remediation Waste near sensitive human health receptors such as public and private water supply wells or sensitive environmental receptors such as wetlands, surface water bodies, or marine environments shall be avoided.
- (3) All Remediation Waste stored at the site of generation or at a temporary storage location shall be placed entirely on a base composed of an impermeable material, and shall be immediately covered with the same material or other suitable material so as to minimize the infiltration of precipitation, volatilization of contaminants, and erosion of the stockpile. Any cover material used shall be properly secured and possess the necessary physical strength to resist tearing by the wind.

40.0036: continued

- (4) Any failure of materials or procedures used in employing the base layer or cover layer as described in 310 CMR 40.0036(3) shall be immediately repaired, replaced, or re-secured so as to minimize precipitation infiltration, volatilization, and erosion/runoff of the Remediation Waste.
- (5) All soils when transported upon public roadways shall be covered to minimize fugitive dust, and where necessary truck tire and undercarriage washing shall be employed to minimize tracking of soils onto public roadways.
- (6) Movement and/or aeration of Remediation Waste stockpiles shall be limited to those activities that are necessary to manage such stockpiles in accordance with 310 CMR 40.0000. Landfarming of soil stockpiles is prohibited unless appropriate steps have been taken to minimize and treat potential air emissions pursuant to 310 CMR 40.0049.

40.0040: Management Procedures for Remedial Wastewater and Remedial Additives

The provisions of 310 CMR 40.0041 through 40.0047, cited collectively as 310 CMR 40.0040, establish requirements and procedures for the management of Remedial Wastewater and/or Remedial Additives, and for the construction, installation, modification, operation and maintenance of treatment works for the management of Remedial Wastewater and/or Remedial Additives.

40.0041: General Provisions for the Management of Remedial Wastewater and/or Remedial Additives

- (1) In General. RPs, PRPs, and Other Persons performing response actions at a disposal site pursuant to M.G.L. c. 21E and 310 CMR 40.0000 shall manage Remedial Wastewater and/or Remedial Additives in a manner adequate to protect health, safety, public welfare, and the environment, and in compliance with the applicable provisions of M.G.L. c. 21E, 310 CMR 40.0000, and all other laws, regulations, orders, permits, and approvals applicable to such response actions. Remedial Wastewater transported from a disposal site is subject to the Remediation Waste management requirements of 40.0030.
- (2) Discharges to Surface Water. No person performing response actions at a disposal site shall discharge Remedial Wastewater and/or Remedial Additives into any Surface Water, or construct, install, modify, operate or maintain an outlet or treatment works for such a discharge, except as provided by M.G.L. c. 21E and 310 CMR 40.0000.
- (3) Discharges to the Ground Surface or Subsurface and/or Groundwater. No person performing response actions at a disposal site shall discharge Remedial Wastewater and/or Remedial Additives to the ground surface or subsurface and/or groundwater, or construct, install, modify, operate or maintain an outlet or treatment works for such a discharge, except as provided by M.G.L. c. 21E and 310 CMR 40.0000.
- (4) Licensure under M.G.L. c. 21C. Response actions involving Remedial Wastewater and/or Remedial Additives which are conducted within the boundaries of a disposal site in compliance with the provisions of 310 CMR 40.0000 shall be considered, for the purposes of 310 CMR 30.801(11), remedial actions initiated by the Department under the provisions of M.G.L. c. 21E. A valid license issued pursuant to M.G.L. c. 21C and 310 CMR 30.000: *Hazardous Waste* shall not be required to manage Remedial Wastewater and/or Remedial Additives within the boundaries of a disposal site, provided such Remedial Wastewater and/or Remedial Additives are managed in compliance with M.G.L. c. 21E and 310 CMR 40.0000.
- (5) Construction, Installation or Modification of Treatment Works. RPs, PRPs, and Other Persons performing response actions that involve the construction, installation or modification of treatment works for the management of Remedial Wastewater and/or Remedial Additives shall construct, install and modify such works in a manner adequate to protect health, safety, public welfare, and the environment, and in compliance with M.G.L. c. 21E and 310 CMR 40.0000.

40.0041: continued

(6) Operation and Maintenance of Treatment Works. RPs, PRPs, and Other Persons operating or maintaining treatment works for the management of Remedial Wastewater and/or Remedial Additives shall:

- (a) Operate and maintain such works in a manner adequate to protect health, safety, public welfare, and the environment, and in compliance with M.G.L. c. 21E and 310 CMR 40.0000.
- (b) Inspect such treatment works upon initial operation and at regular intervals thereafter. The frequency of such inspections shall be conducted in conformance with the requirements specified in 310 CMR 40.0040 and any Department, USEPA, POTW, or Non-Publicly Owned Treatment Works permit or approval. In addition, such persons shall inspect such treatment works upon any modification of the treatment works. At a minimum, such inspection shall determine:
 - 1. the total volume of remedial wastewater treated since the previous inspection;
 - 2. the average flow rate of the system at the time of the inspection;
 - 3. the total volume of any non-aqueous phase oil or hazardous material recovered since the previous inspection; and
 - 4. whether any maintenance activities are necessary to ensure that continued operation of the treatment works shall comply with the applicable requirements.
- (c) Keep and maintain a log for such treatment works. At a minimum, the RP, PRP, or Other Person shall record the following in the log:
 - 1. the name and affiliation of the person performing such inspection;
 - 2. the date and time of such inspection;
 - 3. the total volume of remedial wastewater treated since the previous inspection;
 - 4. the average flow rate of the system at the time of the inspection;
 - 5. the total volume of any non-aqueous phase oil or hazardous material recovered since the previous inspection;
 - 6. a description of any maintenance activities performed during the inspection, or to be scheduled as a result of the inspection; and
 - 7. a description of any problems or potential problems observed during the inspection.
- (d) Keep maintenance and inspection log books and records in a secure on-site building. If a secure on-site building is not available, then such records shall be kept by the operator of the treatment works at an off-site location.

(7) Prevention of Unlawful Discharges. RPs, PRPs, and Other Persons shall take adequate measures to protect the treatment works from vandalism, and to prevent system failure, contaminant pass through, interference, by-pass, upset, and other events likely to result in a discharge of oil and/or hazardous materials to the environment, or to a POTW or Non-publicly Owned Treatment Works, which exceed or violate applicable standards and requirements. At a minimum, these measures include:

- (a) where applicable, an automatic high water/product shutoff switch to prevent overflow of the treatment works;
- (b) where applicable, an automatic pressure shutoff switch;
- (c) data collection devices including flow rate and flow total meters;
- (d) maintenance of a process and instrumentation diagram of the treatment works in the log book or on the treatment works indicating the location of controls, sampling ports, switches, gauges and other system components;
- (e) proper sealing of the treatment works to prevent any unlawful discharge of vapors;
- (f) proper precautions to prevent damage to the system by freezing or extreme heat, vehicles, or vandalism;
- (g) procedures or equipment for identifying system malfunction and communicating such malfunction to the system operator; and
- (h) posting the name and telephone number of the person to contact in the event of a malfunction in an accessible readily visible location.

(8) Prohibition on Discharge of Uncontainerized Waste. No person conducting response actions at a disposal site shall discharge Uncontainerized Waste to the environment or to a POTW or Non-publicly Owned Treatment Works.

40.0041: continued

(9) Inspection of Treatment Works. Except for discharges of Remedial Additives, and discharges of Remedial Wastewater that are discharged without treatment in accordance with 310 CMR 40.0040, RPs, PRPs, and Other Persons treating Remedial Wastewater at a disposal site pursuant to M.G.L. c. 21E and 310 CMR 40.0040 shall engage or employ a Wastewater Treatment Plant Operator having, at a minimum, a currently valid certification of Grade 2, as defined in 257 CMR 2.12: *Grades of Wastewater Treatment Facility Operators* (or higher if required by 257 CMR 2.13: *Classification of Wastewater Treatment Facilities*) to ensure the proper operation and maintenance of the treatment works. Such certified operator shall at a minimum inspect the treatment works at regular intervals of 30 days for the first three months following commencement of the discharge, or any modification of the treatment works associated with the discharge, and at regular intervals of three months thereafter for the duration of the discharge.

(10) Discharges in the Vicinity of Outstanding Resource Waters. Except as provided for in 310 CMR 40.0045(4), no person performing response actions at a disposal site pursuant to M.G.L. c. 21E and 310 CMR 40.0000 shall discharge Remedial Wastewater to the ground surface or subsurface, or to groundwater, at a point within 200 feet of a surface water body designated as an Outstanding Resource Water pursuant to 314 CMR 4.03(4), unless the concentrations of oil and/or hazardous material in the Remedial Wastewater discharged are below the applicable groundwater quality standards set forth in 314 CMR 6.00: *Ground Water Quality Standards* and the applicable Reportable Concentrations set forth in 310 CMR 40.0300 and 40.1600.

(11) Sampling and Analyses of Remedial Wastewater. RPs, PRPs, and Other Persons operating or maintaining treatment works for the management of Remedial Wastewater and/or Remedial Additives shall collect and analyze a sufficient number of soil and/or groundwater samples in accordance with 40.0017 to demonstrate that the discharge and treatment works are in compliance with the requirements of M.G.L. c. 21E and 310 CMR 40.0000.

(12) Sampling and Analyses of Remedial Additives and Remedial Additive By-products. RPs, PRPs, and Other Persons performing response actions involving Remedial Wastewater and/or Remedial Additives shall collect and analyze a sufficient number of samples of the affected soil and groundwater in accordance with 310 CMR 40.0017 to demonstrate that the response action meets the requirements of M.G.L. c. 21E and 310 CMR 40.0000.

(13) Transition Provision. Unless otherwise directed by the Department, RPs, PRPs, and Other Persons managing Remedial Wastewater and/or Remedial Additives at a disposal site pursuant to a Groundwater Discharge Permit, Surface Water Discharge Permit, or Sewer System Extension and Connection Permit, issued by the Department pursuant to 314 CMR 3.00: *Surface Water Discharge Permit Program*, 5.00: *Ground Water Discharge Permit Program* or 7.00: *Sewer System Extension and Connection Permit Program*, respectively, on or before August 25, 1995, may either:

- (a) manage such Remedial Wastewater and/or Remedial Additives in accordance with the terms and conditions of such permit, or
- (b) surrender such permit to the Department and manage the Remedial Wastewater and/or Remedial Additives in accordance with the requirements and procedures of M.G.L. c. 21E and 310 CMR 40.0000.

(14) Alternative Monitoring Plans. Notwithstanding any other provision of 310 CMR 40.0045 or 40.0046, a Licensed Site Professional may develop and submit an alternative plan for monitoring discharges for Remedial Wastewater and/or Remedial Additives, provided:

- (a) site-specific monitoring requirements have not been established by the Department in an order, permit or approval;
- (b) the plan is developed to demonstrate that the applicable standards and requirements for the discharge and treatment works have been met, and takes into consideration an evaluation of the following:
 1. monitoring data collected over a 12 month period for the discharge and treatment works;
 2. the potential risks to, and sensitivity of, human and ecological populations at, and in the vicinity of, the disposal site;
 3. the permeability of the soils at the disposal site;
 4. the presence of any natural groundwater divides or barriers at the disposal site;

40.0041: continued

5. the presence of geologic formations and deposits which could act as preferred groundwater migration pathways;
 6. any subsurface utilities and conduits, and other subsurface structures;
 7. the direction and rate of groundwater movement and flow;
 8. the type of treatment works and management procedures employed at the disposal site;
 9. the fate and transport characteristics of the oil and/or hazardous material present at the disposal site; and
 10. any other relevant information; and
- (c) the alternative plan, in his or her professional judgment, is adequate to demonstrate whether the applicable standards and requirements for the discharge have been met.

(15) Reservation of Rights. No provision of 310 CMR 40.0040 shall be construed to limit the Department's authority to impose on any person requirements for the management of Remedial Wastewater and/or Remedial Additives in addition to those requirements set forth in 310 CMR 40.0040 as the Department deems necessary to protect health, safety, public welfare, or the environment.

(16) No Implied Authority. No provision of 310 CMR 40.0040 shall be construed to imply authorization by the Department to any person to discharge Remedial Wastewater and/or Remedial Additives to any real or personal property not owned by him or her, or to otherwise injure or interfere with any other person's rights or interests, without that person's consent.

(17) Selection of Discharge Authorization. RPs, PRPs, and Other Persons may discharge Remedial Wastewater, Remedial Additives and/or groundwater at or from a disposal site either:

- (a) in accordance with the requirements set forth in M.G.L. c. 21E, and 310 CMR 40.0000; or
- (b) in accordance with the terms and conditions of a permit issued pursuant to M.G.L. c. 21, § 43, 314 CMR 3.00: *Surface Water Discharge Permit Program*, 5.00: *Ground Water Discharge Permit Program*, or 7.00: *Sewer System Extension and Connection Permit Program*, whichever is applicable.

40.0042: Remedial Wastewater Discharges to Surface Water

(1) Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to surface water, provided such discharge occurs in compliance with the terms and conditions of a NPDES permit or emergency exclusion granted by EPA pursuant to 33 U.S.C. 1251 *et seq.*, if applicable, and M.G.L. c. 21E and 310 CMR 40.0000.

(2) Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to surface water without a permit from the Department pursuant to M.G.L. c. 21, § 43, and 314 CMR 3.00, the Massachusetts' Surface Water Discharge Permit Program, provided the discharge is exempt from such permitting requirements under 314 CMR 3.05.

(3) Any person discharging Remedial Wastewater to surface water in accordance with an emergency exclusion granted by EPA pursuant to 33 U.S.C. 1251 *et seq.* shall cease such discharge on or before 120 days from the effective date of the emergency exclusion initially authorizing such discharge, unless:

- (a) EPA grants such person an extension of the emergency exclusion initially authorizing the discharge;
- (b) a permit application for the discharge has been submitted to EPA in accordance with the NPDES program established pursuant to 33 U.S.C. 1251 *et seq.*; or
- (c) such person has a NPDES permit from EPA authorizing the discharge.

40.0042: continued

(4) Any person performing response actions at a disposal site pursuant to M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to surface water that has been designated for protection as an Outstanding Resource Water under 314 CMR 4.04(3), only if:

- (a) such person has a currently valid variance for the discharge from the Department pursuant to 314 CMR 4.04(4); or
- (b) such discharge has been approved by the Department as an Immediate Response Action pursuant to 310 CMR 40.0420 to abate, prevent, or eliminate an Imminent Hazard for which there is no alternative discharge outlet reasonably available or feasible.

40.0043: Remedial Wastewater Discharges to Publicly Owned Treatment Works (POTW)

(1) Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to a sewer system without a permit from the Department pursuant to M.G.L. c. 21, § 43, and 314 CMR 7.00: *Sewer System Extension and Connection Permit Program*, provided the discharge is exempt from such permitting requirements under 314 CMR 7.05: *Activities not Requiring a Permit*.

(2) Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to a sewer system and/or POTW, provided:

- (a) if such discharge is to a sewer system, such discharge complies with the terms and conditions of any permit, license or approval from the public entity controlling the sewer system, and M.G.L. c. 21E and 310 CMR 40.0000; and
- (b) if such discharge is to a POTW, such discharge complies with the terms and conditions of any permit, license or approval from the public entity controlling the POTW, and M.G.L. c. 21E and 310 CMR 40.0000.

(3) No provision of 310 CMR 40.0040 shall be construed to require any public entity controlling a sewer system or POTW to receive any discharge of Remedial Wastewater, or to limit the authority of any public entity controlling a sewer system or POTW, including, but not limited to, any authority to impose connection, user or permit fees, or to impose requirements for the management of Remedial Wastewater, including, but not limited to, any authority to impose monitoring and reporting requirements, to establish volume restrictions, or to impose pretreatment requirements.

40.0044: Remedial Wastewater Discharges to Non-publicly Owned Treatment Works

(1) Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to a Non-publicly Owned Treatment Works, provided:

- (a) the person controlling the Non-publicly Owned Treatment Works has a permit for such works issued by the Department pursuant to 314 CMR 3.00: *Surface Water Discharge Permit Program*, 5.00: *Ground Water Discharge Permit Program*, and/or 8.00: *Supplemental Requirements for Hazardous Waste Management Facilities*, whichever is applicable, that includes specific effluent limitations for the particular oils and hazardous materials in the Remedial Wastewater;
- (b) the Non-Publicly Owned Treatment Works has been designed or modified to provide a level of treatment adequate to comply with the applicable effluent limitations, as established by 314 CMR 3.00: *Surface Water Discharge Permit Program*, 5.00: *Ground Water Discharge Permit Program*, and/or 8.00: *Supplemental Requirements for Hazardous Waste Management Facilities*; and
- (c) such discharge complies with the terms and conditions of any permit, license or approval from the person controlling the Non-publicly Owned Treatment Works, and M.G.L. c. 21E and 310 CMR 40.0000.

(2) No provision of 310 CMR 40.0040 shall be construed to require any person controlling a Non-publicly Owned Treatment Works to receive any discharge of Remedial Wastewater, or to limit the authority of any such person, including, but not limited to, any authority to impose connection, user or permit fees, or to impose requirements for the management of Remedial Wastewater, including, but not limited to, any authority to impose monitoring and reporting requirements, to establish volume restrictions, or to impose pretreatment requirements.

40.0045: Remedial Wastewater Discharges to the Ground Surface or Subsurface and/or Groundwater

(1) Requirement for All Discharges to the Ground Surface or Subsurface and/or Groundwater. Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to the ground surface or subsurface and/or groundwater, provided such discharge:

- (a) does not erode or otherwise impair the functioning of the surficial and subsurface soils, infiltrate underground utilities, building interiors or subsurface structures, result in groundwater mounding within two feet of the ground surface, or result in flooding of, or breakout to the ground surface; and
- (b) otherwise complies with M.G.L. c. 21E and 310 CMR 40.0000.

(2) Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to the ground surface or subsurface and/or groundwater without a permit from the Department pursuant to M.G.L. c. 21, § 43, and 314 CMR 5.00, the Massachusetts Ground Water Discharge Permit Program, provided the discharge is exempt from such permitting requirements under 314 CMR 5.05.

(3) Requirements for Downgradient and Off-Site Discharges.

(a) Except as provided for in 310 CMR 40.0045(5) through (7), any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to the ground surface or subsurface and/or groundwater, at a location either downgradient of the point of withdrawal or outside of the boundaries of the disposal site, provided:

- 1. the OHM concentrations discharged are below the applicable Reportable Concentrations established by 310 CMR 40.0300 and 40.1600, or, for OHM for which there is no applicable Reportable Concentration, the concentration discharged is below background or a concentration determined by a site-specific evaluation not to exacerbate existing conditions;
- 2. groundwater downgradient of the point of discharge is monitored at regular intervals of three months to detect any migration of oil and/or hazardous material at or from the disposal site;
- 3. the discharge from the treatment works is monitored after initial operation and any modification (*e.g.*, on the 1st, 3rd, 6th day, and weekly thereafter for the rest of the first month of operation), and at regular intervals of 30 days thereafter;
- 4. the discharge is not made to a location at which the concentrations of oil and/or hazardous material in the groundwater are significantly lower than the concentrations of oil and/or hazardous material in the discharge; and
- 5. the discharge does not exacerbate existing conditions, or prevent or impair the performance of remedial actions, at the disposal site.

(b) The discharge of Remedial Wastewater containing hazardous waste at a point outside of the boundaries of the disposal site is prohibited, except as provided by 310 CMR 30.000: *Hazardous Waste*.

(4) Requirements for Upgradient Discharges. Except as provided for in 310 CMR 40.0045(5) through (7), any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to the ground surface or subsurface and/or groundwater, at a location upgradient of the point of withdrawal, provided:

- (a) hydraulic containment of the groundwater at the disposal site is maintained so that the Remedial Wastewater discharged upgradient of the point of withdrawal is contained or recaptured within the boundaries of the disposal site;
- (b) the area of hydraulic containment of the groundwater at the disposal site is monitored at regular intervals of 30 days for the first 12 months following commencement of the discharge, or any modification of the treatment works associated with the discharge, to demonstrate compliance with 310 CMR 40.0045(4)(a), and at regular intervals of three months thereafter for the duration of the discharge, unless additional and/or more frequent monitoring is necessary to demonstrate compliance with 310 CMR 40.0045(4)(a);
- (c) the discharge is not made to a location at which the concentrations of oil and/or hazardous material in the groundwater at such location is significantly lower than the concentrations of oil and/or hazardous material in the discharge; and

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(d) the discharge does not exacerbate existing conditions, or prevent or impair the performance of remedial actions, at the disposal site.

(5) Requirements for Utility-related Abatement Measures.

(a) Any person performing a Utility-related Abatement Measure at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater to the ground surface or subsurface and/or groundwater, provided:

1. the Remedial Wastewater is returned to the ground surface or subsurface at a point within 100 feet of the point of withdrawal;
2. the discharge does not exacerbate existing conditions, or prevent or impair the performance of remedial actions, at the disposal site; and

(b) Any person performing a Utility-related Abatement Measure pursuant to M.G.L. c. 21E and 310 CMR 40.0000 that includes the discharge of Remedial Wastewater to the ground surface or subsurface and/or groundwater, shall include a description of the discharge, including the concentration of the oils and/or hazardous materials encountered, the pumping rate and volume of the discharge, and a description of any treatment works employed, in the status reports and/or completion reports submitted to the Department pursuant to 310 CMR 40.0465 and 40.0466.

(6) Requirements for Discharges Containing Non-Reportable Concentrations of Oil and/or Hazardous Material.

(a) Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge groundwater containing oil and/or hazardous material in concentrations less than the applicable release notification threshold established by 310 CMR 40.0300 and 40.1600, to the ground subsurface and/or groundwater provided:

1. the discharge is not made to a location where the concentrations of any oil and/or hazardous material in discharge exceeds an applicable notification threshold established by 310 CMR 40.0300 and 40.1600 at such a location;
2. the discharge is not made to a location at which the concentrations of oil and/or hazardous material in the groundwater at such location are significantly lower than the concentrations of oil and/or hazardous material in the groundwater being discharged; and
3. the discharge does not otherwise exacerbate existing conditions, or prevent or impair the performance of remedial actions, at a disposal site.

(b) The discharge of groundwater containing hazardous waste at a point outside of the boundaries of the disposal site is prohibited, except as provided by 310 CMR 30.000: *Hazardous Waste*.

(7) Requirements for Discharges That Occur During Well Development or Sampling.

(a) Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may discharge Remedial Wastewater or groundwater collected during development, purging, or sampling of groundwater monitoring wells to the ground subsurface, provided the Remedial Wastewater or groundwater is discharged as follows:

1. at the point of withdrawal; or
2. at a point upgradient of the point of withdrawal if the concentrations of any oil and/or hazardous material in the groundwater at the point of discharge are equal to or greater than the concentrations of the oil and/or hazardous material in the Remedial Wastewater.

(b) The discharge of Remedial Wastewater containing hazardous waste at a point outside of the boundaries of the disposal site is prohibited, except as provided by 310 CMR 30.000: *Hazardous Waste*.

40.0046: Application of Remedial Additives

(1) In General. Any person performing response actions at a disposal site may apply Remedial Additives to the ground surface or subsurface and/or groundwater provided such application, and any Remedial Additive By-product:

- (a) does not erode or otherwise impair the functioning of the surficial and subsurface soils, infiltrate underground utilities, building interiors or subsurface structures;
- (b) in cases where the application is to the subsurface, does not result in groundwater mounding within two feet of the ground surface, or result in flooding of or breakout to the ground surface;

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(c) in cases where the Remedial Additives and/or Remedial Additive By-products contain OHM, does not result in the presence of such OHM in the soil or groundwater at any point measured 50 feet or more downgradient from the furthest downgradient point of application at concentrations equal to or greater than an applicable Reportable Concentration set forth in 310 CMR 40.0000;

(d) in cases where the Remedial Additives or Remedial Additive By-products do not contain OHM, does not result in the presence of such Remedial Additives or Remedial Additive By-products in soil or groundwater at any point measured 50 feet or more downgradient from the furthest downgradient point of application above a background concentration or above a level that will exacerbate existing conditions, or prevent or impair the performance of remedial actions at the disposal site; and

(e) is otherwise performed in compliance M.G.L. c. 21E and 310 CMR 40.0000.

(2) Relationship to Massachusetts Ground Water Discharge Permit Program. Any person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 may apply Remedial Additives to ground surface or subsurface and/or groundwater, without a permit from the Department pursuant to M.G.L. c. 21, § 43, and 314 CMR 5.00: *Groundwater Discharge Permitting Program*, the Massachusetts Ground Water Discharge Permit Program, provided the discharge is exempt from such permitting requirements under 314 CMR 5.05: *Activities Not Requiring a Permit*.

(3) Additional Requirements for the Application of Remedial Additives Near Sensitive Receptors.

(a) Prior approval by the Department pursuant to 310 CMR 40.0046(3)(b) is required for the application of Remedial Additives:

1. within 100 feet of any private water supply well;
2. within 800 feet of any public water supply well or well field;
3. within 800 feet of any surface water supply used in a public water system or any tributary of such surface water supply;
4. within 50 feet of any other surface water body or any tributary of such surface water; or
5. that contain or are used to treat Volatile Organic Compounds in environmental media, or otherwise have the potential to volatilize OHM in environmental media within 100 feet of a School, Daycare or Child Care Center or occupied Residential Dwelling;

(b) Except as provided at 310 CMR 40.0046(3)(d), a written plan for the application of Remedial Additives near sensitive receptors pursuant to 310 CMR 40.0046(3)(a):

1. shall be submitted to the Department using a form provided by the Department for such purpose prior to its implementation;
2. shall be incorporated into an Immediate Response Action Plan, Release Abatement Measure Plan, or Phase IV Remedy Implementation Plan, as applicable, provided it is clearly identified (e.g., by title and table of contents); and
3. shall be approved, conditionally approved, or denied by the Department in writing within 21 days of its receipt by the Department. Approval of such plan shall be presumed if the Department does not issue a written approval or denial of said plan within 21 days of receipt;

(c) If Remedial Additives are used to remediate soil above ground, engineering controls shall be implemented to prevent fugitive emissions and a condition of air pollution;

(d) Oral approval may be granted by the Department in situations where there has been a sudden release of oil and/or hazardous material and in other cases where written approval would delay the timely implementation of an Immediate Response Action. In such case where the Department grants oral approval for the application of Remedial Additives as part of an IRA, a written IRA Plan that documents such application of Remedial Additives shall be provided in accordance with the timeframes at 310 CMR 40.0420(7).

(4) Requirements for Treatment of Soil and Groundwater. Each person performing response actions at a disposal site pursuant to M.G.L. c. 21E and 310 CMR 40.0000 that include the application of Remedial Additives shall:

(a) prior to the initial application of Remedial Additives, collect soil and/or groundwater samples at the disposal site for analysis in accordance with 310 CMR 40.0017 to document the concentration of oil and hazardous material;

(b) prior to any subsequent application of Remedial Additives, collect and analyze soil and/or groundwater samples at the disposal site in accordance with 310 CMR 40.0017 to document the concentration of oil and hazardous material and/or Remedial Additive By-products, which may be present in soil and/or groundwater from previous application of Remedial Additives; and

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(c) after each application of Remedial Additives, monitor the groundwater hydraulically upgradient and downgradient, and where practicable underlying the point of application of the Remedial Additives at regular intervals not to exceed every three months thereafter to detect any migration of oil and/or hazardous material, Remedial Additives and/or Remedial Additive By-products from the disposal site.

(5) Notwithstanding the requirements of 310 CMR 40.0046(4)(b), where the application of Remedial Additives is occurring more than once within a calendar month, sampling prior to any subsequent application may be limited to once monthly.

(6) Each person performing response actions at a disposal site pursuant to M.G.L. c. 21E and 310 CMR 40.0000 that include the application of Remedial Additives, shall after the final application of Remedial Additives at a disposal site, monitor the groundwater at regular intervals for a reasonable period of time to demonstrate compliance with 310 CMR 40.0046(1)(c), unless the concentrations of Remedial Additives applied were below applicable standards set forth in 40.0046(1)(c). For determining a reasonable time period, each person shall consider the types, concentrations, and application methodology of Remedial Additives applied, the presence of Remedial Additive By-products, rate and direction of groundwater movement and flow, and the permeability of the soils at the disposal site.

40.0047: Reporting Requirements for Discharges of Remedial Wastewater and Remedial Additives

(1) Reporting Requirements for Remedial Wastewater Discharges to Surface Water, Sewer Systems, POTWs, or Non-publicly Owned Treatment Works. Each person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 that includes the discharge of Remedial Wastewater to a surface water body, sewer system, POTW, or Non-Publicly Owned Treatment Works, shall include a description of the results of the inspections and monitoring required by 310 CMR 40.0040 in the pertinent status reports and/or completion reports submitted to the Department pursuant to 310 CMR 40.0000. In addition to the monitoring data required pursuant to 40.0040, RPs, PRPs, and Other Persons shall also include in pertinent status reports and/or completion reports all other relevant data for the discharge and/or treatment works, collected as a result of their own undertaking or to demonstrate compliance with requirements imposed by other entities. Such additional data includes, but is not limited to, the results of any monitoring required by EPA or the person controlling the sewer system, POTW or Non-publicly Owned Treatment Works receiving the discharge, and any influent monitoring results.

(2) Reporting Requirements for Discharges of Remedial Wastewater to the Ground Surface or Subsurface and/or Groundwater. Each person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 that includes the discharge of Remedial Wastewater to the ground surface or subsurface and/or groundwater, shall include a description of the results of the inspections and monitoring required by 310 CMR 40.0040 in the pertinent status reports and/or completion reports submitted to the Department pursuant to 310 CMR 40.0000. In addition to the monitoring data required pursuant to 310 CMR 40.0040, RPs, PRPs, and Other Persons shall also include in pertinent status reports and/or completion reports all other relevant data for the discharge and/or treatment works, collected either as a result of their own undertaking or to demonstrate compliance with 310 CMR 40.0000. Such additional monitoring data includes but is not limited to influent monitoring data, or other information concerning the performance of the treatment works.

(3) Reporting Requirements for Discharges of Remedial Additives. Each person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 that includes the application of Remedial Additives to the ground surface or subsurface and/or groundwater, shall include a description of the composition, volume, and concentration of the Remedial Additives applied, the methodology employed, and the results of the monitoring required by 310 CMR 40.0040 in the pertinent status reports and/or completion reports submitted to the Department pursuant to 310 CMR 40.0000. In addition to the monitoring data required

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pursuant to 40.0040, RPs, PRPs, and Other Persons shall also include in pertinent status reports and/or completion reports all other relevant data for the application of and discharge of Remedial Additives, collected as a result of their own undertaking, or to demonstrate compliance with 310 CMR 40.0000. Such additional monitoring data includes but is not limited to soil or groundwater analyses obtained from areas where Remedial Additives have been applied, or any other information concerning the performance of the Remedial Additives.

(4) Except as provided for in 310 CMR 40.0045(5) through (7), each status report and completion report submitted in accordance with 310 CMR 40.0047(1) through (3), shall include the following:

- (a) the time and date of any inspections and/or monitoring for the period covered by the report;
- (b) graphical and tabular presentation of any monitoring results for the period covered by the report;
- (c) a description of any operation and maintenance activities, including, but not limited to, a description of any modification to the treatment works or shut-down; and
- (d) if applicable, the name and license number of the Wastewater Treatment Plant Operator employed or engaged at the disposal site, and a copy of his or her inspection report.

(5) Except as provided by 310 CMR 40.0311, each person performing response actions at a disposal site in accordance with M.G.L. c. 21E and 310 CMR 40.0000 that includes the discharge of Remedial Wastewater to a surface water body, sewer system, POTW, or Non-Publicly Owned Treatment Works, or the ground surface or subsurface and/or groundwater, shall report any non-compliance with discharge or concentration limits in 310 CMR 40.0040 through 40.0049 within 72 hours after obtaining knowledge of the circumstances. If the person performing response actions has not corrected the non-compliance, such person shall immediately take appropriate steps to reduce, eliminate and prevent reoccurrence of the noncompliance. Such person shall submit to the Department a written description of the non-compliance, including exact dates and times, and a description of the steps taken, or to be taken, to assess, reduce, eliminate and prevent reoccurrence of the noncompliance in the next applicable response action Status Report.

40.0049: Remedial Air Emissions

(1) Remedial actions that involve the emission or discharge of oil and/or hazardous material to the atmosphere shall be conducted in a manner that ensures the protection of health, safety, public welfare and the environment, in conformance with 310 CMR 40.0000, 310 CMR 7.00: *Air Pollution Control*, and any other applicable permits, approvals, laws or regulations.

(2) Except as provided in 310 CMR 40.0049(3), point-source atmospheric emissions of oil and hazardous material from remedial systems and operations, including, without limitation, packed-tower or diffused aeration air strippers, bioreactors, and soil vapor extraction systems, shall be treated by control devices prior to their discharge to the ambient air.

(3) Notwithstanding the provisions of 310 CMR 40.0049(2), except where specifically required in writing by the Department based upon its review of proposed or ongoing response actions, treatment of point-source remedial air emissions is not required at a disposal site if the untreated emissions:

- (a) are from an Active Exposure Pathway Mitigation Measure or passive venting system installed to mitigate the migration of subsurface vapors into living/working spaces of a building, provided the total air emission rate of all volatile contaminants is less than 100 pounds/year; or
- (b) would be at or below a level of no significant risk to health, safety, public welfare, and the environment; provided, however, that the person undertaking the response action submits an LSP Opinion to the Department prior to commencement of the remedial action stating that such untreated emissions will present no significant risk to health, safety, public welfare and the environment, considering:
 - 1. the mass flux and toxicities of the oil and hazardous material being emitted;
 - 2. the types and proximity of human and ecological populations;

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3. background concentrations of oil and hazardous material in the ambient atmosphere;
 4. relevant policies issued by the Department; and
 5. any other relevant factors.
- (4) Treatment of point-source remedial air emissions may be waived by the Department at sites where timely actions are needed to prevent or abate an Imminent Hazard to health, safety, public welfare, or the environment. In such cases, control devices shall be installed as needed as soon as possible.
- (5) Except as provided in 310 CMR 40.0049(7), air-emission control devices shall be designed, constructed, and operated in a manner that will ensure removal of at least 95% of the emitted oil and hazardous materials, on a weight basis.
- (6) Monitoring Requirements for Remedial Actions that Require the Use of an Off-gas Control System. To ensure compliance with the 95% VOCs reduction performance standard, each person performing response actions at a disposal site pursuant to M.G.L. c. 21E and 310 CMR 40.0000 that require the use of off-gas control systems to reduce the emission or discharge amounts of oil and/or hazardous material to the atmosphere shall:
- (a) collect and analyze influent and effluent vapor samples from the off-gas control system one, seven, 14 and 28 days after system start-up, and monthly thereafter; and
 - (b) document the results of the monitoring in the appropriate status report or Remedial Monitoring Report.
- (7) Notwithstanding the provisions of 310 CMR 40.0049(5), except where treatment standards are specified in writing by the Department based upon its review of proposed or ongoing response actions, a Licensed Site Professional may submit an Opinion to the Department that achievement of a 95% level of emission reduction is not feasible or necessary at a disposal site, based upon an evaluation of conventional treatment technologies and risks to surrounding human or ecological populations. This Opinion shall be accompanied by an alternative treatment control plan that will be implemented at the disposal site.
- (8) No provision of 310 CMR 40.0049(3) or (7) shall relieve any person conducting response actions of their obligations to comply with all applicable permitting requirements and treatment standards specified in 310 CMR 7.00: *Air Pollution Control*.

40.0050: Appeals of Orders and Permits

- (1) Wherever expressly provided by 310 CMR 40.0000, any person who is aggrieved by a permit decision of the Department, or order issued pursuant to M.G.L. c. 21E, § 9, may request an adjudicatory hearing before the Department.
- (2) Each request for a hearing must be sent to the Docket Clerk of the Department by certified mail or hand-delivered within 21 days of the date of issuance of the decision being appealed. A copy of the request shall be sent by certified mail or hand delivered simultaneously to:
 - (a) the Chief Municipal Officer for the municipality where the disposal site is located;
 - (b) the regional office of the Department that issued the decision or order; and
 - (c) where the person aggrieved by a decision is a Permit Applicant who is appealing a permit decision, pursuant to 310 CMR 40.0770, such person shall also simultaneously send, by certified mail or hand delivery, a copy of the request for an adjudicatory hearing to each person who provided public comment.
- (3) Any person who appeals a decision or order who is neither the applicant nor the person to whom such an order was issued is required to simultaneously send a copy of the hearing request by certified mail or by hand to the applicant. For purposes of 310 CMR 40.0000, an aggrieved person is any person who is entitled to become a party or intervene in the proceeding under 310 CMR 1.00: *Adjudicatory Proceeding Rules*.

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- (4) Each request for a hearing submitted pursuant to 310 CMR 40.0050 shall state clearly and concisely the facts which are grounds for the proceeding, in what manner the person, in whose name the request is made, is aggrieved and the remedy that is being sought. The appropriate filing fee required under 310 CMR 4.00: *Timely Action Schedule and Fee Provisions* shall be sent to the Department in the manner required therein.
- (5) Where an applicant is seeking a decision from the Department, the applicant has the burden of establishing, on the basis of credible evidence from a competent source, such facts as are necessary to meet the conditions and criteria set forth in the applicable provisions of 310 CMR 40.0000.
- (6) Where an aggrieved person is someone other than the applicant, the aggrieved person has the burden of establishing on the basis of credible evidence from a competent source, such facts as are necessary to meet the conditions and criteria set forth in applicable provisions of 310 CMR 40.0000.
- (7) The filing of an appeal shall not prevent the Department from issuing any future orders or taking any other action the Department reasonably deems necessary to respond to a release or threat of release of oil or hazardous material, including, but not limited to, taking or arranging one or more response actions at the site or location which is the subject of the appeal.
- (8) The following determinations shall not be subject to an adjudicatory hearing:
- (a) a decision whether to issue an order pursuant to M.G.L. c. 21E, § 10;
 - (b) a decision whether to issue a Notice of Responsibility to any person pursuant to 310 CMR 40.0160(1);
 - (c) a decision whether to issue a Notice of Intent to Take a Response Action pursuant to 310 CMR 40.0160(2);
 - (d) a decision whether to issue a Request for Information pursuant to 310 CMR 40.0165;
 - (e) a decision whether to establish Interim Deadlines pursuant to M.G.L. c. 21E, § 3A(j) and 310 CMR 40.0167;
 - (f) a decision whether to authorize site access pursuant to M.G.L. c. 21E, § 8, and 310 CMR 40.0173;
 - (g) a decision whether to develop an administrative record in accordance with 310 CMR 40.1300;
 - (h) a decision whether to audit a specific site to determine whether such site is in compliance with M.G.L. c. 21E, 310 CMR 40.0000, and any other law administered or enforced by the Department;
 - (i) a decision whether to initiate enforcement action against any person under M.G.L. c. 21E and/or 310 CMR 40.0000;
 - (j) a decision regarding a petition for reimbursement of costs under 310 CMR 40.1260;
 - (k) a decision whether to initiate Compliance Assistance under 310 CMR 40.1100;
 - (l) a decision whether to issue a Technical Assistance Grant;
 - (m) a decision upon administrative review of a demand for payment of Response Action Costs in accordance with 310 CMR 40.1220(3);
 - (n) any decision to suspend, revoke or refuse to renew any permit, authorization, approval, including, but not limited to, any Waiver of Approvals, or similar form of permission required by M.G.L. c. 21E and/or the MCP, where:
 - 1. DEP is expressly not required by the General Laws to grant a hearing; or
 - 2. DEP is required by law to take such action without exercising any discretion in the matter on the basis of a court conviction or judgment; or
 - 3. such action is based solely upon failure to file timely reports, schedules or applications, or to pay lawfully prescribed fees;
 - (o) any decision contained in a Notice of Audit Findings at the conclusion of an audit, provided, however, that any Notice of Intent to Assess a Civil Administrative Penalty or order accompanying such notice or issued following issuance of a Notice of Audit Finding shall be subject to an adjudicatory hearing;
 - (p) any decision to designate one or more disposal sites or response actions as a Special Project in accordance with 310 CMR 40.0026;

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- (q) any Reclassification of a Tier IA disposal site made in accordance with 310 CMR 40.0583; and
- (r) any other determination, decision, authorization or approval under M.G.L. c. 21E and/or 310 CMR 40.0000 for which an adjudicatory hearing is not required by M.G.L. c. 30A, unless expressly required by 310 CMR 40.0000.

40.0051: Appeals Relative to Administrative Penalties

Whenever the Department seeks to assess a civil administrative penalty pursuant to M.G.L. c. 21A, § 16, M.G.L. c. 21E and 310 CMR 40.0000, the person who would be assessed the penalty shall have the right to an adjudicatory hearing. Any request for an adjudicatory hearing thereon shall be made in accordance with M.G.L. c. 21A, § 16, and 310 CMR 5.00: *Administrative Penalty*.

40.0060: Special Project Designation Permits

310 CMR 40.0061 through 40.0070, cited collectively as 310 CMR 40.0060, set forth the requirements and procedures for Special Project Designation Permits.

40.0061: Purpose and Eligibility

(1) The Department may designate certain projects as "Special Projects" through its approval of a Special Project Designation Permit. For disposal site(s) designated as Special Projects, Special Project Designation shall have the effect of:

- (a) extending the deadline for submitting a Tier Classification Submittal as required by 310 CMR 40.0500; or
- (b) extending specific deadline(s) for completing Comprehensive Response Actions (Phases II, III, IV or V) as required by 310 CMR 40.0560(2); and
- (c) establishing an annual compliance assurance fee schedule for the Special Project as described in 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.

(2) Eligible Applicants. The following entities may apply to the Department for Special Project Designation:

- (a) Any public body politic, including but not limited to any federal, state or municipal governmental entity; or
- (b) Any person who:
 - 1. is an Eligible Person or Eligible Tenant as defined in M.G.L. c. 21E and 310 CMR 40.0006 with respect to the proposed Special Project Designation area; and
 - 2. provides a letter of community support as described in 310 CMR 40.0061(3)(e) from the Chief Municipal Officer(s) of the community(ies) in which the proposed Special Project Designation area is located.

(3) Eligible Projects. Projects eligible for Special Project Designation Permits may include but are not limited to infrastructure improvement projects (*e.g.*, construction or expansion of rail lines or roadways), redevelopment of one or more properties, or the performance of coordinated response actions addressing multiple disposal sites or a single site with multiple owners. Eligible projects shall meet each of the following criteria:

- (a) one or more disposal sites are, or are likely to be, located within the boundaries of the project;
- (b) proposed response actions will be managed in a coordinated fashion;
- (c) the applicant has secured adequate financing for the project and
- (d) compliance with the response action deadline(s) for which an extension is sought under the Special Project Designation as described in 310 CMR 40.0061(1)(a) or (b) would unreasonably decrease the cost-effectiveness or feasibility of project implementation;
- (e) for Special Project Designation Permit Applications to extend a specific deadline(s) for Comprehensive Response Actions as described in 310 CMR 40.0061(1)(b), submittal of a Tier Classification for the disposal site(s) included in the Special Project Designation prior to or concurrent with the submittal of the Special Project Designation Permit Application; and

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(f) when the applicant is an Eligible Person or Eligible Tenant as described in 310 CMR 40.0061(2)(b), compliance with the following additional criteria for determining the eligibility of the project:

1. demonstration of community support for the project by providing a letter of community support in the Special Project Designation Permit Application from each municipality(ies) in which the property(ies) in the proposed Special Project Designation is located that describes the public benefit(s) of the project including economic development, infrastructure improvement, public housing, recreation or access;
2. except as provided in 310 CMR 40.0061(3)(f)3., each municipality may submit support for no more than two Special Project Designation Permit applications per annum for applications made by an Eligible Person or Eligible Tenant as described in 310 CMR 40.0061(2)(b), except where the population of the municipality exceeds 50,000, in which case the municipality may submit support for two Special Project Designation Permit Applications plus one additional Special Project Designation Permit Application per 50,000 residents provided the total number per annum does not exceed six;
3. notwithstanding 310 CMR 40.0061(3)(f)2., when the annual municipal limit has been reached, the Department may consider a Special Project Permit Application made by an Eligible Person or Eligible Tenant as an eligible project upon receiving a written request from the Chief Municipal Officer(s) of each municipality(ies) in which the property(ies) included in the proposed Special Project Designation is located;

(4) No annual limit shall apply to the number of Special Project Designation Permit Applications that may be made by a body politic as described in 310 CMR 40.0061(2)(a). Special Project Designation Permit Applications made by a body politic in a particular municipality shall not affect the limit on the number of Special Project Permit Applications that may be made by Eligible Person or Eligible Tenant applicants for projects in that municipality.

40.0062: Procedures for Applying for a Special Project Designation Permit

(1) Contents of Application. Each application filed with the Department shall include, at a minimum, the following:

- (a) a completed Transmittal Form for Permit Application and Payment using the form established by the Department for such purposes;
- (b) the applicable completed Permit Application using the form established by the Department for such purposes;
- (c) the applicable permit application fee payable pursuant to 310 CMR 4.00;
- (d) certification by the applicant that the application fee has been mailed, or hand-delivered to the Department, concurrent with submittal of the application;
- (e) an indication of the specific deadline(s) to be extended under the Special Project Determination pursuant to either 310 CMR 40.0061(1)(a) or (b);
- (f) a description of the project that includes:
 1. its expected duration;
 2. an explanation of why a Special Project Designation Permit is necessary to successfully implement the project,
 3. a map of the parcels within and the boundaries of the area for which the Special Project Designation Permit is sought;
 4. a description of any planned redevelopment of the parcels within the boundaries of the Special Project Designation area, that includes the location, size and use of buildings and infrastructure and open space, to the extent known;
 5. the Release Tracking Numbers for any known releases of oil and/or hazardous material at or from the subject properties that have been reported to the Department, a description of the source(s), nature and extent of such releases, to the extent identified and characterized, including any known or probable Exposure Pathways; and
 6. a description of how the project meets the criteria in 310 CMR 40.0061(3);
- (g) a list of any Status Reports, Phase Reports, or Completion Statements for any response actions that are in progress or have been completed at the time of Special Project Designation Permit Application is made that provides a description of the current status and projected schedule for completion of response actions in progress and the dates on which any completed Reports or Statements were submitted to the Department;

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- (h) a description of response actions to be conducted under the Special Project Designation Permit, including a proposed schedule, to the extent such actions have been planned;
 - (i) the name, business address, and telephone number of the person who will be conducting response actions under the Special Project Designation Permit;
 - (j) when the application is made pursuant to 310 CMR 40.0061(1)(b) and a Tier Classification submittal has not been previously submitted to the Department, a Tier Classification submittal pursuant to 310 CMR 40.0500; notwithstanding 310 CMR 40.0501(6), a single Tier Classification may be provided for multiple parcels and multiple disposal sites within the boundaries of the Special Project Designation area;
 - (k) justification that an extension of the specific deadline(s) sought under the Special Project Designation Permit will not compromise the protection of health, safety, public welfare, or the environment, based on known and potential risks from releases at or from the property(ies) proposed for inclusion in the Special Project Designation and the ability to manage known and potential risks throughout the duration of the Special Project Designation Permit;
 - (l) when the applicant is an Eligible Person or Eligible Tenant as described in 310 CMR 40.0061(2)(b), a letter of community support that describes the public benefit(s) of the project pursuant to 310 CMR 40.0061(3)(f);
 - (m) when the applicant is a person as described in 310 CMR 40.0061(2)(b), a certification that he or she is an Eligible Person or Eligible Tenant as defined in M.G.L. c. 21E and 310 CMR 40.0006;
 - (n) a copy of the public notice as published pursuant to 310 CMR 40.1403(2)(b) and 310 CMR 40.0062(5) containing the date of publication and name of the newspaper;
 - (o) when the applicant is not the Chief Municipal Officer of the community(ies) where the proposed project is located, a copy of the written notices sent to the Chief Municipal Officer(s) and Board(s) of Health as required by 310 CMR 40.0062(5);
 - (p) a certification by the applicant and the person described in 310 CMR 40.0062(1)(i) (if different from the applicant) that, except as fully disclosed in the application, he or she is not subject to any outstanding administrative or judicial environmental enforcement action under any federal, state or local law;
 - (q) a copy of an access agreement obtained by the applicant from each of the persons who own or control the properties included in the boundaries of the Special Project Designation area, if different from the applicant; and
 - (r) the certification of the submittal required by 310 CMR 40.0009 by the applicant and the person described in 310 CMR 40.0062(1)(i) (if different from the applicant).
- (2) An application for Special Project Designation Permit shall not be deemed complete if the Department determines that such application:
- (a) fails to contain all information and certifications required by 310 CMR 40.0062(1);
 - (b) fails to include the applicable fee established by 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*; or
 - (c) is incorrectly filled out.
- (3) An application for a Special Project Designation Permit, or Special Project Designation Permit Modification, Transfer or Extension shall be reviewed in accordance with the procedures described in 310 CMR 40.0060 and 40.0070.
- (4) A Special Project Designation Permit Application to extend a specific deadline(s) pursuant to 310 CMR 40.0061(1)(b) may be submitted concurrently with a Tier Classification submittal.
- (5) Public Review of Application.
- (a) Prior to the submission of a Special Project Designation Permit Application or Special Project Designation Permit Modification, Transfer or Extension, each applicant shall take the following actions to provide notice to the public and local officials that the Special Project Designation Permit Application is available at DEP for review and comment:
 - 1. a public notice pursuant to 310 CMR 40.1403(2)(b) shall be published in a newspaper that circulates in the community(ies) in which the property(ies) included in the proposed Special Project Designation is located and in any newspapers that circulate in any other community(ies) which is, or is likely to be, affected by the disposal site; and

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2. when the applicant is not the Chief Municipal Officer of the community(ies) where the project is located, at least three days prior to publication of the public notice, a copy of the written notice shall be delivered by mail or hand to the Chief Municipal Officer(s) and Board(s) of Health in the community(ies) in which the disposal site is located and in any other community(ies) that is, or is likely to be, affected by the disposal site.
- (b) The public notice required by 310 CMR 40.0062(5)(a) shall include, but not be limited to, the following information:
 1. the address(s) of the properties proposed for inclusion in the Special Project Designation;
 2. the DEP Release Tracking Number(s);
 3. the name, address, and telephone number of the applicant(s);
 4. the date on or about which the applicant(s) intends to file the application with the Department;
 5. for an initial Special Project Designation Permit, a brief description of the deadline extension sought;
 6. for Special Project Designation Permit Modifications, Transfers or Extensions, a brief description of proposed modification, transfer or deadline extension sought; and
 7. a description of the procedures by which interested persons may review and comment on the Special Project Designation Permit Application.
- (c) Interested persons may submit written comments related to the Special Project Designation Permit Application within 20 days of the date that such Application is available at DEP for review and comment. Such written comments shall be submitted to the Department by mail or by hand delivery during normal Department business hours and to the Special Project Designation Permit applicant.
- (d) The Department shall consider and respond as it deems appropriate to public comments submitted in accordance with 310 CMR 40.0062(5).
- (e) On its own initiative, the Department may extend the period for submission of public comments.

(6) Response Action Deadlines During Special Project Designation Permit Application Review. Notwithstanding 310 CMR 40.0501(2):

- (a) the deadline for Tier Classification for a disposal site proposed for inclusion within a Special Project Designation pursuant to 310 CMR 40.0061(1) shall be stayed while the Department is reviewing the Special Project Designation Permit Application;
- (b) the next applicable Comprehensive Response Action deadline for a disposal site proposed for inclusion within a Special Project Designation pursuant to 310 CMR 40.0061(1)(b) shall be stayed while the Department is reviewing the Special Project Designation Permit Application.

(7) Response Action Deadlines if the Special Project Designation is Denied. If the Special Project Designation is denied by the Department pursuant to 310 CMR 40.0060, then for applications submitted:

- (a) pursuant to 310 CMR 40.0061(1)(a), the deadline for Tier Classification shall be the original deadline for Tier Classification (provided such deadline has not passed) or 90 days from the date of the Department's denial, whichever is later;
- (b) pursuant to 310 CMR 40.0061(1)(b), the deadline for the next applicable Comprehensive Response Action submittal shall be the original deadline for the submittal (provided such deadline has not passed) or 90 days from the date of the Department's denial, whichever is later.

40.0063: Approval of Applications for Special Project Designation Permits, and Special Project Designation Permit Modifications, Transfers or Extensions

- (1) Special Project Designation Permits and Special Project Designation Permit Modifications, Transfers or Extensions shall be approved in accordance with the process and schedule in 310 CMR 40.0070.

40.0063: continued

(2) The Department shall consider the criteria in 310 CMR 40.0063(3) and (4) and all other available information when reviewing a Special Project Designation Permit Application or a Modification, Transfer or Extension submitted pursuant to 310 CMR 40.0060, and when making the following decisions:

- (a) to grant a Special Project Designation Permit, or Special Project Designation Permit Modification, Transfer or Extension;
- (b) to grant a Special Project Designation Permit, or Special Project Designation Permit Modification, Transfer or Extension with conditions; or
- (c) to deny a Special Project Designation, or Special Project Designation Permit, Modification, Transfer or Extension.

(3) Department Decision Concerning Special Project Designation Permit and Special Project Designation Permit Modification, Transfer or Extension. In considering whether to grant or deny an application, the Department shall consider the following:

- (a) the extent to which risks posed by releases at or from property proposed for inclusion in the Special Project Designation have been identified and characterized and whether known or potential risks can likely be managed in a manner that protects health, safety, public welfare, and the environment;
- (b) whether the project meets the eligibility criteria in 310 CMR 40.0061(3);
- (c) whether compliance with the applicable response action deadline(s) described in 310 CMR 40.0500 that would be extended under the Special Project Designation would unreasonably decrease the cost-effectiveness of project implementation;
- (d) the extent to which the implementation and coordination of proposed response actions at the disposal site(s) in the project area is feasible and likely, and whether the applicant and other participants (e.g., property owners, if different from applicant) have agreed to such implementation and coordination;
- (e) the ability and willingness of the applicant to perform necessary response actions;
- (f) the environmental compliance history of the applicant and the party who will implement proposed response actions (if different from the applicant);
- (g) whether significant public comments can be addressed in the decision;
- (h) whether Department oversight of response actions is necessary; and
- (i) any other factor the Department deems relevant to the decision.

(4) The Department may deny a Special Project Designation Permit and Special Project Designation Permit Modification, Transfer or Extension if it determines that:

- (a) the applicant has submitted information in the application that he or she knew or reasonably should have known was false or misleading;
- (b) the application was not completed by an applicable deadline;
- (c) risks posed by releases at or from the property(ies) proposed for inclusion in the Special Project Designation have not been sufficiently identified, and characterized and/or cannot be managed to ensure that the deadline extension(s) sought under the Special Project Designation will not compromise the protection of health, safety, public welfare, and the environment;
- (d) compliance with the response action deadline(s) the applicant is seeking to extend under the Special Project Designation would not unreasonably decrease the cost-effectiveness of project implementation;
- (e) implementation of the proposed response actions is not feasible or likely, or property owners included in the Special Project Designation, if different from the applicant, have not agreed to such implementation;
- (f) there is significant public opposition to granting the Special Project Designation with respect to performance of response actions;
- (g) the applicant is not able or willing to oversee and coordinate implementation of the Special Project; or
- (h) the Department intends to oversee, undertake or arrange for the performance of necessary response actions at the disposal site.

40.0063: continued

- (5) Effect of Special Project Designation. The Department's decision to grant a Special Project Designation shall have the following effect on response action deadlines of 310 CMR 40.0000.
- (a) For Special Project Designations sought to extend the deadline for Tier Classification pursuant to 310 CMR 40.0061(1)(a), the deadline for Tier Classification shall be extended two years from the deadline specified at 310 CMR 40.0501(2);
 - (b) For Special Project Designations sought pursuant to extend a specific deadline(s) for Comprehensive Response Actions pursuant to 310 CMR 40.0061(1)(b), the specified Comprehensive Response Action deadline(s) shall be extended for a period of two years from the applicable deadline(s) in 310 CMR 40.0560;
 - (c) Additional deadline extensions may be sought upon the expiration of the Special Project Designation, pursuant to 310 CMR 40.0067.
- (6) A Special Project Designation Permit or Special Project Designation Permit Modification, Transfer or Extension shall become effective:
- (a) 36 days from the date the complete application is received by the Department, if the Permit is presumptively approved without conditions pursuant to 310 CMR 40.0070(3);
 - (b) on the date the Department issues its written approval of the Permit, if approved with conditions;
 - (c) 36 days from the date the Department issues a Notice of Extended Review, if the Department issues the applicant(s) a Notice of Extended Review in accordance with 310 CMR 40.0070(3)(c) and the Permit is presumptively approved without conditions pursuant to 310 CMR 40.0070(4); or
 - (d) on the date the Department issues its written approval of the Permit, if the applicant and the Department by written agreement extend any schedule for timely action or individual portion thereof for the review of a Permit application pursuant to 310 CMR 40.0070(6) or 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.
- (7) A Special Project Designation Permit or Special Project Designation Permit Extension shall be effective for two years, unless otherwise established by the Department; any modification or transfer of a permit shall be effective for the remaining duration of the permit being transferred or modified.

40.0064: Special Project Designation Conditions

- (1) Any person performing response actions to address a disposal site subject to a Special Project Designation shall comply with M.G.L. c. 21E, 310 CMR 40.0000, the terms and conditions of the Special Project Designation Permit and any other applicable federal, state or local laws.
- (2) All Special Project Designation Permits shall have as conditions of Designation the requirement that the Permittee shall:
- (a) oversee and coordinate the Special Project;
 - (b) comply with the terms and conditions of response actions established or approved by the Department during the course of the Special Project;
 - (c) comply with the notification regulations at 310 CMR 40.0300 for any release or threat of release of oil and/or hazardous material;
 - (d) comply with the requirements for conducting Immediate Response Actions to address two- or 72-hour releases or threats of release or Conditions of Substantial Release Migration in accordance with 310 CMR 40.0400;
 - (e) provide reasonable access to the parcel owned or controlled by the Permittee to employees, agents and contractors of the Department for all purposes authorized by M.G.L. c. 21E and to other persons performing response actions;
 - (f) avoid engaging in activities that could prevent or impede the implementation of reasonably likely response actions in the future;
 - (g) for Special Project Designations pursuant to 310 CMR 40.0061(1)(a), file a Tier Classification Submittal for any disposal site that requires further response actions by the date the Special Project Designation Permit expires, unless such Permit is extended pursuant to 310 CMR 40.0067 and 40.0070;

40.0064: continued

- (h) for Special Project Designations pursuant to 310 CMR 40.0061(1)(b), file the next applicable Comprehensive Response Action Submittal for any disposal site that requires further response actions by the date the Special Project Designation Permit expires, unless such Permit is extended pursuant to 310 CMR 40.0067 and 40.0070;
- (i) provide the Department with a report describing the status of response actions on an annual basis, unless an alternative schedule is established in the Special Project Designation Permit; and
- (j) comply with any other conditions necessary to ensure the appropriate implementation of response actions.

(3) A Special Project Designation Permit shall not grant any property rights or exclusive privileges, nor shall it authorize any injury to private property or taking of property rights.

40.0065: Modification of Special Project Designation Permit

- (1) The permittee may apply for a modification to a Special Project Designation Permit to add or remove property subject to the Special Project Designation.
- (2) A request for a Special Project Designation Permit Modification shall include the following:
 - (a) a completed transmittal form using the form established by the Department for such purposes;
 - (b) a description of and rationale for the modification sought; and
 - (c) the certification required by 310 CMR 40.0009.

40.0066: Transfer of Special Project Designation Permit

- (1) A permittee may apply for a transfer of Special Project Designation. An application for transfer of Special Project Designation shall include the following:
 - (a) a completed transmittal form using the form established by the Department for such purposes;
 - (b) a statement as to why the transfer is sought;
 - (c) a certification required by 310 CMR 40.0009 from the current permittee;
 - (d) written consent by the transferee to the terms and conditions of the Special Project Designation Permit;
 - (e) a certification required by 310 CMR 40.0009 from the transferee and the person described in 310 CMR 40.0062(1)(i) (if different from the transferee);
 - (f) a certification that the transferee is an Eligible Applicant pursuant to 310 CMR 40.0061(2); and
 - (g) the compliance history(ies) and certification(s) of the transferee and the person described in 310 CMR 40.0062(1)(i) (if different from the transferee) that, except as fully disclosed in the application, he or she is not subject to any outstanding administrative or judicial environmental enforcement action under any federal, state or local law.

40.0067: Extension of Special Project Designation Permit

- (1) A permittee may apply for an extension of Special Project Designation. An application for an extension of Special Project Designation shall include the following:
 - (a) a completed transmittal form using the form established by the Department for such purposes;
 - (b) a statement as to why the extension is sought;
 - (c) a report describing the status of response actions and any known instances of noncompliance with 310 CMR 40.0000 associated with the Special Project Designation Permit, and a plan and schedule for proposed or continuing response actions;
 - (d) an LSP Opinion indicating that the plans and/or reports submitted are in conformance with the requirements of 310 CMR 40.0000;
 - (e) a certification by the applicant and the person described in 310 CMR 40.0062(1)(i) (if different from the applicant) that, except as fully disclosed in the request for extension, he or she is not subject to any outstanding administrative or judicial environmental enforcement action under any federal, state or local law; and

40.0067: continued

(f) the certification required by 310 CMR 40.0009 by the permittee and the person described in 310 CMR 40.0062(1)(i) (if different from the applicant).

(2) A Special Project Designation Permit Extension does not forgive any noncompliance of the permittee that resulted from the late submittal or failure to submit any response action submittal due during the duration of the Special Project Designation Permit.

40.0068: Termination of Special Project Designation Permit

(1) A Permittee may voluntarily surrender a Special Project Designation Permit provided that such Permittee notifies the Department in writing of such surrender using the transmittal form established by the Department for such purpose and submits a report to the Department describing the status of response actions. If applicable, the Permittee shall also comply with 310 CMR 40.0170(10).

(2) Special Project Designation Permit shall terminate if:

- (a) the Permittee voluntarily surrenders the Special Project Designation Permit as described in 310 CMR 40.0068(1);
- (b) the Permittee submits a Permanent Solution Statement pursuant to 310 CMR 40.1000 for the disposal site(s) covered by the Special Project Designation Permit;
- (c) an assessment is completed that demonstrates that no releases or threats of release have occurred at or from the properties subject to Special Project Designation Permit; or
- (d) the Special Project Designation Permit expires.

40.0069: Suspension and Revocation of Special Project Designation Permit

(1) The Department may suspend or revoke a Special Project Designation Permit for cause including, but not limited to, the following:

- (a) any violation of M.G.L. c. 21E, 310 CMR 40.0000, or Special Project Designation Permit condition, or other applicable law or regulation;
- (b) the submittal of false or misleading information by the Permittee; or
- (c) for nonpayment of annual compliance assurance fees required pursuant to 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.

(2) Prior to the suspension or revocation of a Special Project Designation Permit for cause, the Department shall issue a notice of intent to suspend or revoke the Special Project Designation Permit which describes the basis for the proposed suspension or revocation and informs the person to whom it is issued of his or her right to request an adjudicatory hearing pursuant to M.G.L. c. 30A.

(3) Upon suspension or revocation of a Special Project Designation Permit, the Department shall establish new deadlines for the Tier Classification or Comprehensive Response Action deadline(s) extended under the Special Project Designation Permit for any disposal site that requires further response actions.

40.0070: Approval Process for Special Project Designation Permits

(1) General. 310 CMR 40.0070, together with 310 CMR 4.04: *Permit Applications Schedules and Fee*, define the review and approval process for a Special Project Designation Permit Application or a Special Project Designation Permit Modification, Transfer or Extension. The Department shall consider the requirements and criteria at 310 CMR 40.0060, when making a decision to grant or deny a Special Project Designation Permit or a Modification, Transfer or Extension of a Special Project Designation Permit.

(2) Commencement of Schedule. For purposes of 310 CMR 40.0070 and 310 CMR 4.04(2)(a), the computation of time periods shall commence on the day following the day a complete Special Project Designation Permit Application, Modification, Transfer or Extension is received at the appropriate regional office of the Department or on the day following the day the applicable permit application fee is received, as described in 310 CMR 40.0008, whichever occurs later.

40.0070: continued

(3) A Special Project Designation Permit, or Modification, Transfer or Extension of a Special Project Designation Permit, shall be presumed approved without conditions 36 days from the date of the commencement of the Application time period pursuant to 310 CMR 40.0070(2), unless prior to the end of the 36 day period, the Department provides to the applicant(s) one of the following:

- (a) a decision to deny the applicant a Special Project Designation Permit, or Modification, Transfer or Extension of a Special Project Designation Permit, based on the criteria in 310 CMR 40.0063(3) and (4);
- (b) a decision to grant the applicant a Special Project Designation Permit, or Modification, Transfer or Extension of a Special Project Designation Permit with conditions, based on the criteria in 310 CMR 40.0063(3) and (4); or
- (c) a Notice of Extended Review indicating that, because of the nature and complexity of the review, based on the criteria set forth in 310 CMR 40.0063(3) and (4), the Department requires an additional 36 days from the date the Notice of Extended Review is issued by the Department to complete its review.

(4) If the Department issues the applicant(s) a Notice of Extended Review in accordance with 310 CMR 40.0070(3)(c), the Special Project Designation Permit or Modification, Transfer or Extension shall be presumed approved without conditions 72 days from the date of the commencement of the Application time period, pursuant to 310 CMR 40.0070(2), unless the Department provides the applicant(s) with one of the following prior to 72 days from the date of the commencement of the Application time period:

- (a) a decision to deny the applicant Special Project Designation Permit, or Modification, Transfer or Extension of a Special Project Designation Permit, based on the criteria in 310 CMR 40.0063(3) and (4); or
- (b) a decision to grant the applicant a Special Project Designation Permit, or Modification, Transfer or Extension of a Special Project Designation Permit with conditions, based on the criteria in 310 CMR 40.0063(3) and (4).

(5) Presumptive approval of a Special Project Designation Permit, Modification, Transfer or Extension, pursuant to 310 CMR 40.0070 means the RP, PRP or Other Person has approval to proceed with Response Actions in compliance with all applicable provisions of 310 CMR 40.0000. Such presumptive approval shall not be construed as approval by the Department of the scope or adequacy of plans or of the response actions as actually conducted, or as forgiveness of non-compliance with any provision of 310 CMR 40.0000.

SUBPART B: ORGANIZATION AND RESPONSIBILITIES

40.0100: Overview of Roles and Responsibilities in Response Actions

(1) The Department is authorized to take or arrange for such response actions as it reasonably deems necessary to respond to releases or threats of release of oil and/or hazardous material. The Department has final administrative authority and discretion to determine any and all of the following:

- (a) whether a release of oil and/or hazardous material has occurred and/or whether a threat of release or Imminent Hazard exists;
- (b) whether a release or threat of release of oil and/or hazardous material requires a response action;
- (c) the appropriate extent and nature of a response action consistent with M.G.L. c. 21E and 310 CMR 40.0000;
- (d) the appropriate level of Department oversight of response actions undertaken by RPs, PRPs and Other Persons; and
- (e) whether a response action, application, Opinion or other submittal is in compliance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements.

(2) The Department, PRPs and Other Persons may undertake necessary response actions, provided such response actions are performed in compliance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable laws.

40.0100: continued

- (3) RPs shall undertake necessary response actions in compliance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable laws.
- (4) RPs, PRPs and Other Persons shall involve local, state, and federal agencies and organizations in decisions regarding response actions to the extent required by M.G.L. c. 21E, 310 CMR 40.0000 and other applicable laws.
- (5) RPs, PRPs and Other Persons shall involve the public in decisions regarding response actions to the extent required by M.G.L. c. 21E, 310 CMR 40.0000 and other applicable laws.
- (6) No LSP Opinion shall be required for any response action performed by the Department under 310 CMR 40.0000.

40.0101: Role of the Department in Response Actions

- (1) The Department may, without limitation:
 - (a) review and evaluate reports of releases or threats of release of oil and/or hazardous material and Imminent Hazards and, when reasonably necessary, perform or arrange for the performance of one or more response actions;
 - (b) collect or oversee the collection of pertinent facts regarding releases or threats of release of oil and/or hazardous material;
 - (c) require persons undertaking response actions to collect pertinent facts regarding releases or threats of release of oil and/or hazardous material;
 - (d) perform or arrange for performance of response actions by the Department, and/or RPs, PRPs or Other Persons;
 - (e) establish Interim Deadlines for the completion of response actions;
 - (f) issue permits, including, but not limited, to approvals and conditional approvals, to persons seeking to carry out response actions at those sites for which a permit is required by M.G.L. c. 21E and 310 CMR 40.0000;
 - (g) coordinate and oversee response actions conducted by RPs, PRPs or Other Persons to assure the consistency of the response actions with M.G.L. c. 21E and 310 CMR 40.0000;
 - (h) audit response actions not overseen or conducted by the Department;
 - (i) establish an administrative record upon which the selection of a response action is based;
 - (j) conduct or oversee, and/or require persons carrying out one or more response actions to conduct, Public Involvement Activities;
 - (k) conduct enforcement and seek reimbursement and compensation to which the Commonwealth is entitled pursuant to M.G.L. c. 21E;
 - (l) provide Technical Assistance Grants to eligible applicants in accordance with 310 CMR 40.1400;
 - (m) seek the resources of federal or other state agencies or local governments to respond to releases or threats of release of oil and/or hazardous material;
 - (n) authorize persons to enter any site, or other location to be investigated as a possible disposal site, not owned or operated by him or her for the purpose of performing one or more response actions upon the consent of the owner or operator thereof, in accordance with 310 CMR 40.0173;
 - (o) request persons to provide information to the Department with respect to a release or threat of release or any site or other location where oil and/or hazardous material is or might be located;
 - (p) acquire real property, or any interest therein, by purchase, gift or lease, or by eminent domain under the provisions of M.G.L. c. 79, if necessary to carry out the purposes of M.G.L. c. 21E;
 - (q) restrict the use of property that is or was a site, and modify or release such restrictions, if necessary to carry out the purposes of M.G.L. c. 21E;
 - (r) record, or cause, allow or require the owner of property that is or was a site to record, notice of the restrictions of the use of the property, or of the modification or release of the restrictions, in accordance with M.G.L. c. 21E, § 6;
 - (s) publish and maintain lists of Location to be Investigated and disposal sites;

40.0101: continued

- (t) conduct compliance assistance to provide guidance to persons undertaking response actions to assist such persons in achieving compliance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements;
- (u) specify requirements to prevent and control, and to counter the effects of, releases or threats of release of oil and/or hazardous material, in accordance with M.G.L. c. 21E, § 6. Such requirements may include, without limitation, but without duplication of requirements prescribed in other programs of the Department, the preparation of contingency plans, the acquisition, construction, maintenance and operation of equipment, facilities and resources for the monitoring, prevention and control of releases, and the staffing and training of personnel regarding the prevention and control of releases of oil or hazardous material; and
- (v) take any other action authorized by M.G.L. c. 21E and/or 310 CMR 40.0000 as it deems reasonably necessary.

(40.0102 through 40.0104: Roles of Other State Agencies and Organizations: Reserved)

(40.0105 through 40.0109: Role of Local Government: Reserved)

40.0110: Adequately Regulated Sites

- (1) Purpose. The regulations published at 310 CMR 40.0110 through 310 CMR 40.0114, cited collectively as 310 CMR 40.0110, establish requirements and procedures in accordance with M.G.L. c. 21E, § 3(c), for limiting the applicability of M.G.L. c. 21E and 310 CMR 40.0000 to response actions at disposal sites deemed adequately regulated by the Department under another program or by another government agency.
- (2) No provision of 310 CMR 40.0110 shall be construed to relieve any person from any liability for Response Action Costs or damages under M.G.L. c. 21E or from any obligation for any administrative, civil or criminal penalty, fine, settlement, or other damages.
- (3) No provision of 310 CMR 40.0110 shall be construed to limit the rights of private parties to seek contribution, reimbursement or equitable share from any other person under M.G.L. c. 21E.

40.0111: Federal Superfund Program

- (1) The Department shall deem response actions at a disposal site subject to CERCLA adequately regulated for purposes of compliance with 310 CMR 40.0000, provided:
 - (a) for sites at which a ROD has not been issued,
 - 1. the response actions are conducted in compliance with the National Contingency Plan and any applicable EPA approvals or orders; and
 - 2. subsequent site assessment, cleanup and/or closure activities are addressed pursuant to CERCLA; or
 - (b) the Department concurs with the ROD and/or other EPA decisions for remedial actions at such site in accordance with 40 CFR 300.515(e); or
 - (c) if the Department requests that EPA change or expand the EPA-selected remedial action, EPA agrees to integrate the Department's proposed changes or expansions into the planned CERCLA remedial action in accordance with 40 CFR 300.515(f); or
 - (d) if the Department does not concur with the ROD and/or other EPA decisions for remedial actions at such site, the EPA-selected remedial action is thereafter modified so as to integrate the Department's proposed changes or expansions into the planned CERCLA remedial work in accordance with CERCLA section 121(f)(2); or
 - (e) if the Department reviewed the ROD and/or other EPA decision for remedial actions at such site and has no comment with respect thereto.
- (2) 310 CMR 40.0000 shall apply to any release or threat of release of oil and/or hazardous material and to any response action that is not subject to CERCLA.
- (3) The Department shall take appropriate actions to obtain any federal monies available to fund response actions.

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- (4) The Department shall seek to incorporate the requirements, standards and procedures established by M.G.L. c. 21E and/or 310 CMR 40.0000, to the extent practicable as follows:
- (a) in each site-specific cooperative agreement;
 - (b) in each Superfund state contract under CERCLA; and
 - (c) during the processes set forth in 40 CFR 300.515(d) and (e).
- (5) No provision in 310 CMR 40.0111 shall be construed to limit or waive the Department's authority to concur with the ROD for remedial actions at any NPL site.
- (6) No provision in 310 CMR 40.0111 shall be construed to limit or waive the application of any state law or regulation other than M.G.L. c. 21E and 310 CMR 40.0000, or any authority delegated to any agency of the Commonwealth pursuant to federal law.
- (7) No provision in 310 CMR 40.0111 shall be construed to limit or waive the Commonwealth's authority under CERCLA, including, but not limited to, the right to:
- (a) be substantially and meaningfully involved in the initiation, development and selection of response actions at NPL Sites; and
 - (b) bring or maintain an action under CERCLA or any other law for purposes of attaining state standards, requirements, criteria or limitations with respect to CERCLA remedial work.
- (8) At disposal sites deemed by the Department to be Adequately Regulated pursuant to 310 CMR 40.0111 where the selected remedy relies, in whole or in part, on the imposition of land use controls to minimize the potential for human or ecological exposure to contamination or to protect the integrity of a remedy, such land use controls may be implemented through a Notice of Activity and Use Limitation subject to the written approval of EPA and the Department. Such Notices of Activity and Use Limitation shall be implemented on a form or forms developed by the Department for such purpose, and shall include such additional terms as EPA and the Department may in writing approve to achieve the objectives of the selected remedy, and shall:
- (a) be subject to 310 CMR 40.0020(5), 310 CMR 40.1080(4), and those provisions of M.G.L. c. 21E and 310 CMR 40.0000 that otherwise apply to Notices of Activity and Use Limitations, except for any such provisions that require the use of the forms contained in 310 CMR 40.1099, any such provisions that require such Notices of Activity and Use Limitation or any Amendment or Termination thereof to be signed by a Licensed Site Professional, and any such provisions applicable to Notices of Activity and Use Limitations contained in:
 1. 310 CMR 40.0020(1);
 2. 310 CMR 40.0900;
 3. 310 CMR 40.1005 through 310 CMR 40.1067;
 4. 310 CMR 40.1080(1) and (2); and
 5. 310 CMR 40.1400;
 - (b) incorporate the land use control requirements set forth in an institutional control design statement approved by EPA; and
 - (c) be amended or terminated only by means of an Amendment of a Notice of Activity and Use Limitation or Termination of a Notice of Activity and Use Limitation, as applicable, approved in writing by EPA and the Department.
- (9) Compliance with the terms and conditions of a Notice of Activity and Use Limitation implemented at an adequately regulated disposal site pursuant to 310 CMR 40.0111(8) is subject to audit and enforcement pursuant to M.G.L. c. 21E and 310 CMR 40.0000 and M.G.L. c. 21A, § 16 and 310 CMR 5.00: *Administrative Penalty*.
- (10) Adequately regulated disposal sites subject to CERCLA, or portions of such disposal sites, will be considered to have reached a Permanent Solution for the purposes of M.G.L. 21E and 310 CMR 40.0000 under the following conditions:
- (a) Adequately regulated disposal sites that have reached site completion status pursuant to a Final Close-Out Report approved by EPA pursuant to CERCLA and the NCP, or pursuant to an equivalent report approved by EPA and identified by the Department in writing, will be considered to have achieved a Permanent Solution.
 - (b) Portions of adequately regulated disposal sites will be considered to have achieved a Permanent Solution for the purposes of M.G.L. c. 21E and 310 CMR 40.0000 when they:
 1. are addressed pursuant to one or more Remedial Actions conducted under CERCLA and the NCP;

2. have reached Remedial Action Completion status pursuant to a Remedial Action Report approved by EPA pursuant to CERCLA and the NCP, or pursuant to an equivalent report approved by EPA and identified by the Department in writing; and
 3. have reached all remedial action objectives and associated cleanup levels specified in the applicable ROD(s).
- (c) Portions of adequately regulated disposal sites that have reached a Permanent Solution pursuant to this 310 CMR 40.0111(10) may constitute a portion or the entirety of one or more Operable Units of the applicable disposal site under CERCLA and the NCP.
- (11) Adequately regulated disposal sites subject to CERCLA, or portions of such disposal sites, will be considered to have reached a Remedy Operation Status for the purposes of M.G.L. c. 21E and 310 CMR 40.0000 under the following conditions:
- (a) Adequately regulated disposal sites that have reached construction complete status pursuant to a Preliminary Close-Out Report approved by EPA pursuant to CERCLA and the NCP, or pursuant to an equivalent report approved by EPA and identified by the Department in writing, and that have not yet reached a Permanent Solution pursuant to 310 CMR 40.0111(10) will be considered to have achieved Remedy Operation Status for the purposes of M.G.L. 21E and 310 CMR 40.0000.
 - (b) Portions of adequately regulated disposal sites will be considered to have achieved Remedy Operation Status for the purposes of M.G.L. 21E and 310 CMR 40.0000 when they:
 1. are addressed pursuant to one or more Remedial Actions conducted under CERCLA and the NCP,
 2. have reached Remedial Action Completion status pursuant to a Remedial Action Report approved by EPA pursuant to CERCLA and the NCP, or pursuant to a similar report approved by EPA and identified by the Department in writing, and
 3. have not reached a Permanent Solution pursuant to 310 CMR 40.0111(10).
 - (c) Portions of adequately regulated disposal sites that have reached Remedy Operation Status pursuant to this 310 CMR 40.0111(11) may constitute a portion or the entirety of one or more Operable Units of the applicable site under CERCLA and the NCP.

40.0112: Federal Corrective Action Pursuant to HSWA

- (1) General. HSWA Corrective Actions performed by persons other than the Department shall be deemed adequately regulated for purposes of 310 CMR 40.0000, provided the person undertaking such response actions does so in compliance with the terms and conditions of the applicable license, permit, approval or order issued pursuant to 42 U.S.C. §§ 6928(a), 6928(h), 6924(u) or 6924(v) and the following:
- (a) the general provisions in 310 CMR 40.0001 through 40.0099, except:
 1. the requirements for LSP Opinions set forth in 310 CMR 40.0015;

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2. the requirements for force majeure set forth in 310 CMR 40.0025;
3. the provisions of 310 CMR 40.0050 with respect to permit decisions only;
- (b) the requirements and provisions in 310 CMR 40.0101 through 40.0199, except:
 1. the general requirements for conducting response actions set forth in 310 CMR 40.0190;
 2. the provisions of 310 CMR 40.0193 applicable to technical justification;
- (c) the requirements and procedures in 310 CMR 40.0300 for notifying the Department of a release, threat of release and/or Imminent Hazard, except those releases for which 120 day notification is required by 310 CMR 40.0315;
- (d) the requirements and procedures in 310 CMR 40.0405 through 40.0429 applicable to Immediate Response Actions, except:
 1. for the following Conditions of Substantial Release Migration:
 - a releases to the ground surface or to the vadose zone that, if not promptly removed or contained, are likely to significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution;
 - b releases to the groundwater that have migrated or are expected to migrate more than 200 feet per year; or
 - c releases to the groundwater that have been or are within one year likely to be detected in a surface water body, wetland, or public water supply reservoir;
 2. requirements for approval of the Department set forth in 310 CMR 40.0420, if EPA has approved the response actions;
- (e) the requirements and procedures in 310 CMR 40.0900 and 40.1000 applicable to Risk Characterization; provided, however:
 1. such requirements shall apply only to locations:
 - a. outside the boundary of a landfill either licensed pursuant to 310 CMR 30.800 or having an interim license pursuant to 310 CMR 30.099(6); and
 - b. outside the boundary of a landfill which has been closed pursuant to 310 CMR 30.633; and
 2. the requirements therein applicable to Permanent or Temporary Solution Statements shall not apply; and
 3. the requirements therein shall not be deemed to preempt more stringent applicable federal and state standards; and
- (f) the requirements and procedures for Public Involvement Activities and Technical Assistance Grants in 310 CMR 40.1400 shall apply to the extent applicable and practicable as determined by the Department.

(2) Adequate Regulation During Pendency of Appeal. Unless otherwise provided by the Department, HSWA Corrective Actions performed by persons other than the Department shall be deemed adequately regulated for purposes of 310 CMR 40.0000 while an appeal from the applicable license, permit, approval or order is pending, provided the person undertaking such response actions complies with the following:

- (a) the general provisions in 310 CMR 40.0001 through 40.0099, except:
 1. the requirements for force majeure set forth in 310 CMR 40.0025;
 2. the provisions of 310 CMR 40.0050 with respect to permit decisions only;
- (b) the requirements and provisions in 310 CMR 40.0101 through 40.0199, except:
 1. the general requirements for conducting response actions set forth in 310 CMR 40.0190;
 2. the provisions of 310 CMR 40.0193 applicable to technical justification;
- (c) the requirements and procedures in 310 CMR 40.0300 for notifying the Department of a release, threat of release and/or Imminent Hazard, except those releases for which 120 day notification is required by 310 CMR 40.0315;
- (d) the requirements and procedures in 310 CMR 40.0405 through 40.0467 applicable to Immediate Response Actions, Release Abatement Measures and Utility-related Abatement Measures;
- (e) the requirements and procedures in 310 CMR 40.0900 and 40.1000 applicable to Risk Characterization; provided, however:

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1. such requirements shall apply only to locations:
 - a. outside the boundary of a landfill either licensed pursuant to 310 CMR 30.800: *Licensing Requirements and Procedures* or having an interim license pursuant to 310 CMR 30.099(6); and
 - b. outside the boundary of a landfill which has been closed pursuant to 310 CMR 30.633: *Closure and Post-closure Care*; and
 2. the requirements therein applicable to Permanent or Temporary Solution Statements shall not apply; and
 3. the requirements therein shall not be deemed to preempt more stringent applicable federal and state standards; and
 - (f) the requirements and procedures for Public Involvement Activities and Technical Assistance Grants in 310 CMR 40.1400 shall apply to the extent applicable and practicable as determined by the Department.
- (3) Any person who is performing a HSWA Corrective Action at a disposal site deemed adequately regulated pursuant to 310 CMR 40.0112 shall concurrently submit to the Department a copy of any document submitted to EPA for approval.
- (4) In order to ensure compliance with those requirements and procedures in 310 CMR 40.0000 which are applicable to HSWA Facilities deemed adequately regulated pursuant to 310 CMR 40.0112, the Department may conduct an audit of any RP, PRP or Other Person, or any response action, including, but not limited to, any HSWA Corrective Action, or any HSWA Facility that is a site in accordance with 310 CMR 40.1100.
- (5) No provision of 310 CMR 40.0112 shall be construed to limit or waive any of the Commonwealth's authority or rights under RCRA, including, but not limited to, the authority or right to:
- (a) provide comment or to appeal any license, permit approval or order proposed by EPA;
 - (b) seek and obtain authorization to administer and enforce a hazardous waste program, including, but not limited to, authority over HSWA Corrective Actions; and
 - (c) enter into agreements to establish a federal-state partnership to carry out the purposes of RCRA.
- (6) Notwithstanding any provision of 310 CMR 40.0000 to the contrary, except 310 CMR 40.0112(2), no person undertaking response actions at a HSWA Facility which the Department deems adequately regulated pursuant to a license, permit, approval or order issued pursuant to 42 U.S.C. §§ 6928(a), 6928(h), 6924(u) or 6924(v) shall be required to engage or employ a Licensed Site Professional for purposes of having such professional render one or more LSP Opinions with respect to such HSWA Corrective Action; provided, however, that such person shall employ or engage an LSP for purposes of 310 CMR 40.0035(1)(h), unless otherwise approved by the Department.

40.0113: RCRA Authorized State Hazardous Waste Program (M.G.L. c. 21C and 310 CMR 30.000: *Hazardous Waste*)

- (1) General. Response actions at 21C Facilities performed by persons other than the Department and permitted, approved or ordered by the Department pursuant to M.G.L. c. 21C and/or 310 CMR 30.000: *Hazardous Waste* shall be deemed adequately regulated for purposes of 310 CMR 40.0000, provided the person undertaking such response actions does so in compliance with the terms and conditions of any such permit, order or approval and the following:
- (a) the general provisions in 310 CMR 40.0001 through 310 CMR 40.0099, except:
 1. the requirements for LSP Opinions set forth in 310 CMR 40.0015;
 2. the requirements for force majeure set forth in 310 CMR 40.0025; and
 3. the provisions of 310 CMR 40.0050 with respect to permit decisions only;
 - (b) the requirements and provisions in 310 CMR 40.0101 through 310 CMR 40.0199, except:
 1. the general requirements for conducting response actions set forth in 310 CMR 40.0190;
 2. the provisions of 310 CMR 40.0193 applicable to technical justification;

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- (c) the requirements and procedures in 310 CMR 40.0300 for notifying the Department of a release, threat of release and/or Imminent Hazard, except those releases for which 120 day notification is required by 310 CMR 40.0315;
- (d) the requirements and procedures in 310 CMR 40.0405 through 40.0429 applicable to Immediate Response Actions, except for the following Conditions of Substantial Release Migration:
 - 1. releases to the ground surface or to the vadose zone that, if not promptly removed or contained, are likely to significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution;
 - 2. releases to the groundwater that have migrated or are expected to migrate more than 200 feet per year; or
 - 3. releases to the groundwater that have been or are within one year likely to be detected in a surface water body, wetland, or public water supply reservoir;
- (e) the requirements and procedures in 310 CMR 40.0900 and 40.1000 applicable to Risk Characterization; provided, however:
 - 1. such requirements shall apply only to locations:
 - a. outside the boundary of a landfill either licensed pursuant to 310 CMR 30.800: *Licensing Requirements and Procedures* or having an interim license pursuant to 310 CMR 30.099(6); and
 - b. outside the boundary of a landfill which has been closed in accordance with 310 CMR 30.633: *Closure and Post-closure Care*;
 - 2. the requirements therein applicable to Permanent or Temporary Solution Statements shall not apply; and
 - 3. the requirements therein shall not be deemed to preempt more stringent applicable federal or state standards; and
- (f) the requirements and procedures for Public Involvement Activities and Technical Assistance Grants in 310 CMR 40.1400 shall apply to the extent applicable and practicable as determined by the Department.

(2) Notwithstanding any provision of 310 CMR 40.0000 to the contrary, no person undertaking response actions at a 21C Facility which the Department deems adequately regulated by M.G.L. c. 21C and 310 CMR 30.000: *Hazardous Waste* shall be required to engage or employ a Licensed Site Professional for purposes of having such professional render one or more LSP Opinions; provided, however, that such person shall employ or engage an LSP for purposes of 310 CMR 40.0035(1)(h), unless otherwise approved by the Department.

40.0114: Solid Waste Management Facilities

- (1) General. Response actions performed by persons other than the Department at Solid Waste Management Facilities permitted, approved or ordered by the Department pursuant to M.G.L. c. 21H, M.G.L. c. 111, § 150A and/or 310 CMR 19.000 shall be deemed adequately regulated for purposes of 310 CMR 40.0000, provided the person undertaking such response actions does so in compliance with the terms and conditions of any such permit, order or approval and the following:
 - (a) the general provisions in 310 CMR 40.0001 through 40.0099, except:
 - 1. the requirements for LSP Opinions set forth in 310 CMR 40.0015;
 - 2. the requirements for force majeure set forth in 310 CMR 40.0025; and
 - 3. the provisions of 310 CMR 40.0050 with respect to permit decisions only;
 - (b) the requirements and provisions in 310 CMR 40.0101 through 40.0199, except:
 - 1. the general requirements for conducting response actions set forth in 310 CMR 40.0190;
 - 2. the provisions of 310 CMR 40.0193 applicable to technical justification;
 - (c) the requirements and procedures in 310 CMR 40.0300 for notifying the Department of a release, threat of release and/or Imminent Hazard, except those releases for which 120 day notification is required by 310 CMR 40.0315;
 - (d) the requirements and procedures in 310 CMR 40.0405 through 40.0429 applicable to Immediate Response Actions, except: for the following Conditions of Substantial Release Migration:

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1. releases to the ground surface or to the vadose zone that, if not promptly removed or contained, are likely to significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution;
 2. releases to the groundwater that have migrated or are expected to migrate more than 200 feet per year; or
 3. releases to the groundwater that have been or are within one year likely to be detected in a surface water body, wetland, or public water supply reservoir;
- (e) the requirements and procedures in 310 CMR 40.0900 and 40.1000 applicable to Risk Characterization; provided, however:
1. such requirements shall apply only to locations outside the boundary of a landfill permitted pursuant to 310 CMR 19.020 or outside the boundary of a landfill which has been closed in accordance with 310 CMR 19.140: *Landfill Closure Requirements*;
 2. the requirements therein applicable to Permanent or Temporary Solution Statements shall not apply; and
 3. the requirements therein shall not be deemed to preempt more stringent applicable federal or state standards; and
- (f) the requirements and procedures for Public Involvement Activities and Technical Assistance Grants in 310 CMR 40.1400 shall apply to the extent applicable and practicable as determined by the Department.

(2) Notwithstanding any provision of 310 CMR 40.0000 to the contrary, no person undertaking response actions at a Solid Waste Management Facility which the Department deems adequately regulated by M.G.L. c. 21H, M.G.L. c. 111, § 150A and 310 CMR 19.000: *Solid Waste Management* shall be required to engage or employ a Licensed Site Professional for purposes of having such professional render one or more LSP Opinions; provided, however, that such person shall employ or engage an LSP for purposes of 310 CMR 40.0035(1)(h), unless otherwise approved by the Department.

40.0115 Radioactive Material(1) Licensed Facilities.

- (a) Response actions at licensed sites and facilities licensed and overseen by the Massachusetts Department of Public Health under the provisions of 105 CMR 120.000: *The Control of Radiation* (i.e., Licensed Facilities), shall be deemed adequately regulated for purposes of 310 CMR 40.0000 with respect releases of Radiation from Radioactive Materials.
- (b) Releases of oil or hazardous materials other than Radioactive Materials at such licensed facilities shall be assessed and mitigated in accordance with the risk assessment and risk management provisions of 310 CMR 40.0000.

(2) Non-Licensed Facilities.

- (a) The human health risks posed by the emission of Radiation from releases of Radioactive Materials to the environment at sites and facilities not licensed and overseen by the Massachusetts Department of Public Health shall be assessed and mitigated in accordance with the technical protocols, procedures, and standards contained in 105 CMR 120.000: *The Control of Radiation*.
- (b) The non-Radiation human health risks posed by releases of Radioactive Materials to the environment, including threshold and non-threshold health effects, and the human health risks associated with releases of oil or hazardous materials other than Radioactive Materials shall be assessed and mitigated in accordance with the risk assessment and risk management provisions of 310 CMR 40.0000.
- (c) All Permanent and Temporary Solutions achieved at sites and facilities not licensed and overseen by the Massachusetts Department of Public Health pursuant to 105 CMR 120.000 shall require the implementation of an Activity and Use Limitation documenting the nature and location of Radioactive Materials emitting Radiation above background level and obligations and conditions for limiting exposures at that location, if present on the disposal site.

40.0120: Coordination with Responses by the United States Coast Guard to Discharges of Oil

- (1) Except as provided by 310 CMR 40.0120(2) and (3), response actions performed by the U.S. Coast Guard, including, but not limited to, response actions performed by its contractors under its supervision and control, pursuant to the Federal Water Pollution Control Act, 33 U.S.C. 1321(c), in response to a release of oil into navigable waters shall be exempt from the following requirements:
 - (a) any requirement to obtain a permit, approval or other authorization from the Department issued pursuant to M.G.L. c. 21E or the MCP for such response actions;
 - (b) any requirement to employ or engage a Licensed Site Professional for purposes of performing such response actions;
 - (c) any requirement to submit a plan or report to the Department for such response actions under M.G.L. c. 21E or the MCP, provided that the U.S. Coast Guard, upon request by the Department, provides the Department with a copy of any and all plans and reports prepared pursuant to the Federal Water Pollution Control Act, 33 U.S.C. 1321(c); and
 - (d) any requirement to submit a Permanent or Temporary Solution Statement to the Department for such a release.
- (2) The exemption in 310 CMR 40.0120(1) shall not apply to any release of oil into navigable waters for which the U.S. Coast Guard is an RP or PRP.
- (3) Notwithstanding 310 CMR 40.0120(1)(b), the U.S. Coast Guard shall employ or engage a Licensed Site Professional for purposes of complying with the requirements set forth in 310 CMR 40.0035(1)(h).
- (4) No provision in 310 CMR 40.0120 shall be construed to relieve any RP or PRP of his or her responsibility for complying with M.G.L. c. 21E and the MCP.
- (5) No provision in 310 CMR 40.0120 shall be construed to relieve the U.S. Coast Guard or any other party of its responsibility under M.G.L. c. 21E, the MCP or any other applicable law for notifying the Department of a release or threat of release of oil or hazardous material.

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- (6) No provision in 310 CMR 40.0120 shall be construed to relieve the U.S. Coast Guard or any other party of the necessity of complying with all other applicable federal, state and local laws.

40.0150: Role of Other Persons

- (1) Any person threatened or damaged by a release or threat of release of oil and/or hazardous material, and any Other Person, may undertake response actions, provided such response actions are performed in compliance with M.G.L. c. 21E, 310 CMR 40.0000 and any other applicable laws.
- (2) As provided in M.G.L. c. 21E, § 4, any person who without charge renders assistance in a response action at the request of a duly authorized representative of the Department shall not be held liable, notwithstanding any other provision of law, for civil damages as a result of any act or omission by such person in removing oil and/or hazardous material, except for acts or omissions of gross negligence or willful misconduct.
- (3) As provided in M.G.L. c. 21E, § 4, any person, except a person who is liable pursuant to M.G.L. c. 21E, § (5)(a)(1), who provides care, assistance or advice in response to a release or threat of release of oil into or onto the tidal waters of the United States, including, without limitation, the territorial sea, or to any tidal shorelines adjoining any waters of the United States, or to the Zone established by Presidential Proclamation No. 5030, dated March 10, 1983, including, without limitation, the ocean waters of the areas referred to as "eastern special areas" in Article 3(1) of the Agreement between the United States of America and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990, which is consistent with applicable state law, or the NCP or as otherwise directed by the federal on-scene coordinator predesignated by EPA or the United States Coast Guard to coordinate and direct a federal response for oil removal under subpart D of the NCP, or by the state official with responsibility for oil spill response, shall not be liable for removal costs or damages which result from actions taken or omitted in the course of providing such care, assistance or advice, except with respect to personal injury, wrongful death, gross negligence or willful misconduct, notwithstanding any other law to the contrary.

40.0160: Departmental Notice to Responsible Parties and Potentially Responsible Parties

- (1) Notices of Responsibility.
- (a) The Department shall attempt to identify and notify RPs and PRPs of their potential liability under M.G.L. c. 21E through the issuance of a Notice of Responsibility (NOR) prior to taking or arranging a response action. The determination of whom to notify of their potential liability under M.G.L. c. 21E rests in the sole discretion of the Department. The Department's failure to notify any particular RP or PRP shall not preclude recovery by the Commonwealth or any other person against that RP or PRP for any reimbursement or compensation to which the Commonwealth or that person is entitled, nor shall it preclude the Department or any other person from taking any other action authorized or required by M.G.L. c. 21E, 310 CMR 40.0000, any order or determination issued by the Department or any other law.
- (b) The Department may notify RPs and PRPs, orally or in writing, of their potential liability under M.G.L. c. 21E. If the Department provides such oral notice, the Department shall follow up such notice with a written NOR. Written NORs shall include a summary of actions undertaken to date at the site by the Department, RPs, PRPs and Other Persons and a description of the following:
1. the actions which the Department currently determines are necessary to respond to the release or threat of release;
 2. the procedure by which, and extent to which, the RP or PRP can become involved in the response action; and
 3. the liability which the RP or PRP may incur as a result of the release or threat of release.

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(2) Notice of Intent To Take a Response Action.

(a) The Department shall attempt to notify the owner or operator of a site, or a fiduciary or secured lender that has title to or possession of a site, from or at which there is or has been a release or threat of release of oil and/or hazardous material of the Department's intent to perform a response action at the site.

(b) Such notice may be made orally or in writing. The Department shall provide written notice of its intent to perform a response action whenever time allows.

(c) Such notice will not be given if the Department is unable to identify or locate the owner or operator, or fiduciary or secured lender that has title to or possession of the site, or when providing such notice would be impractical because of an emergency or other circumstances. In cases where the notice is impractical in view of the emergency or other circumstances, the Department shall promptly thereafter notify the owner or operator, or the fiduciary or secured lender that has title to or possession of the site, in writing that the Department has undertaken a response action at the site.

(d) Failure by the Department to give notice to an owner or operator of the Department's intention to perform a response action shall not limit or preclude any RP's or PRP's liability pursuant to M.G.L. c. 21E, 310 CMR 40.0000 or any other law.

40.0165: Departmental Requests for Information (RFI)

(1) Upon reasonable request, any person shall furnish information, and provide the Department access to any and all documents, material to a release or threat of release of oil and/or hazardous material or any site or other location where oil and/or hazardous material is or might be located. The Department may request any person to furnish such information through the issuance of a Request for Information.

(2) The Department may require any person to whom a Request for Information is directed to promptly amend or supplement any response thereto upon such person's obtaining new information which is material to the RFI or to correct any errors or omissions in any response thereto later discovered by such person. Such a requirement may be imposed in the RFI itself.

(3) A person to whom a Request for Information is directed shall separate those parts of each and every document responsive to such request which such person claims are protected from disclosure from those parts of the documents to which such person makes no such claim; provided, however, that if such person claims that a document sought, or any part thereof, is a trade secret protected from disclosure, such person shall submit the entire document to the Department together with a request for confidentiality in accordance with 310 CMR 3.00. If a person to whom an RFI is directed claims a document sought, or any part thereof, is protected from disclosure, such person shall submit to the Department those parts which he or she does not claim are entitled to protection with a statement as to the nature of the protected information and the basis for the claim that the information is protected from disclosure.

(4) For each and every document requested that a person to whom a RFI is directed claims is not in his or her possession, custody or control, such person shall submit a statement in response thereto to the effect that he or she does not have the information requested and, if he or she has such knowledge, identify the person or persons from whom the information may be obtained.

(5) RFIs may be made orally or in writing. If the Department issues an oral RFI, the Department shall follow up that request with a written RFI. Each written RFI shall include, without limitation, the following:

(a) a description of the information requested and/or documents to which the Department is seeking access;

(b) a reasonable deadline for providing the information requested or access sought;

(c) the name, address and telephone number of the Department's employee(s), agent(s), representative(s) or contractor(s) to whom the information requested or access sought shall be provided; and

(d) notice to the person to whom the RFI is directed of his or her obligations under M.G.L. c. 21E, §§ 2, 4 and 8, and 310 CMR 40.0165(1) through (4).

40.0166: Department Right of Entry

For the purpose of administration and enforcement of M.G.L. c. 21E and 310 CMR 40.0000 and for the protection of human health, safety, public welfare or the environment, employees, agents and contractors of the Department may enter any site, vessel or any other location to be investigated as a possible site at reasonable times and upon reasonable notice to investigate, sample or inspect any documents, conditions, equipment, practice or property. In the event that the Department reasonably determines as a result of an investigation, sampling or inspection that there has been a release or that there exists a threat of release of oil or hazardous material, the Department may enter a site, vessel or location, and areas proximate thereto, and perform or arrange for the performance of such response actions as it reasonably deems necessary.

40.0167: Interim Deadlines

(1) The Department may establish and enforce reasonable Interim Deadlines consistent with M.G.L. c. 21E and 310 CMR 40.0000 for the performance of response actions, and the furnishing of information and provision of access to documents and other information to DEP, including, but not limited to, deadlines for compliance with Requests for Information, applicable orders, permits and other requirements, and deadlines for the termination of settlement discussions.

(2) Any person who is required to comply with an Interim Deadline may request, in writing, an extension thereof prior to the running of any such deadline. Each such request shall state clearly and concisely the facts which are grounds for the extension and the relief sought. The Department may modify an Interim Deadline if it deems such action appropriate. Any such modification shall be made in writing.

(3) The Department shall establish Interim Deadlines in writing by means of, but not limited to, the following:

- (a) an approval of an application or work schedule;
- (b) the issuance of a permit, Request for Information, Notice of Responsibility or Notice of Response Action; or
- (c) the issuance of an order pursuant to M.G.L. c. 21E, § 9 or 10.

(4) The Department's decision to establish, modify or refuse to modify one or more Interim Deadlines in accordance with 310 CMR 40.0167 shall not be subject to M.G.L. c. 30A, or any other law, governing adjudicatory proceedings.

(5) If the person required to comply with an Interim Deadline does not make a timely application for an extension thereof in accordance with 310 CMR 40.0167(2), the Interim Deadline shall be presumed to constitute a reasonable Interim Deadline consistent with M.G.L. c. 21E and 310 CMR 40.0000. Such presumption may be rebutted by a preponderance of the evidence.

40.0168: List of Locations and Disposal Sites

(1) Commencing on or about August 1, 1993, the Department shall publish and maintain a Transition List of Sites and Locations (the "1993 Transition List"). The Department shall identify in the 1993 Transition List, and any addendum thereto, the status of disposal sites and Locations to Be Investigated ("LTBIs") to enable RPs, PRPs and Other Persons to ascertain the actions they are required by 310 CMR 40.0600 (the "Transition Provisions") to undertake to achieve or demonstrate compliance with M.G.L. c. 21E and 310 CMR 40.0000.

(2) Commencing on or about January 1, 1994, the Department shall maintain a list of Locations to be Investigated and disposal sites.

(3) Commencing on or about January 1, 1994, the Department shall publish on at least an annual basis a list of disposal sites that have been classified as Tier I in accordance with 310 CMR 40.0500, including addenda thereto. The published lists may also include, without limitation, the following:

40.0168: continued

- (a) any disposal site for which the Department has not received:
 - 1. a Permanent or Temporary Solution Statement; or
 - 2. a Tier Classification Submittal.
 - (b) any disposal site for which the Department has reason to believe that response actions have not been performed in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and/or any other applicable requirement;
 - (c) any disposal site classified as Tier I for which the Department has received a Permanent or Temporary Solution Statement in compliance with the applicable deadline; and
 - (d) any confirmed disposal site included on any list published by the Department in accordance with 310 CMR 40.520(1), as effective prior to October 1, 1993, or on the 1993 Transition List, unless a No Further Action Letter is received by the Department with respect to such disposal site prior to October 1, 1993.
- (4) Any list published in accordance with 310 CMR 40.0168(3) shall not include any of the following:
- (a) any disposal site at which there has been a release of oil and/or hazardous material and for which the Department has received a Permanent or Temporary Solution Statement, except as otherwise provided by 310 CMR 40.0168(3)(b) or (c);
 - (b) any disposal site at which an RP, PRP or Other Person, excluding the Department, is performing one or more response actions in compliance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements, and less than one year has passed since the earliest date computed in accordance with 310 CMR 40.0404(3);
 - (c) any disposal site:
 - 1. that has been classified as a Tier II disposal site in accordance with 310 CMR 40.0500; and
 - 2. at which an RP, PRP or Other Person, excluding authorized personnel, agents and Contractors of the Department, is performing one or more response actions in compliance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements;
 - (d) any disposal site deemed adequately regulated by another program or government agency pursuant to M.G.L. c. 21E, § 3(c), and 310 CMR 40.0110, except disposal sites subject to CERCLA.
- (5) The fact that a location, site, or disposal site has not been placed on the list published pursuant to 310 CMR 40.0168(1) or 40.0168(2), shall not prevent the Department from taking or arranging for response actions at such locations, sites or disposal sites which are consistent with M.G.L. c. 21E, 310 CMR 40.0000 and any other applicable requirement; or from taking any enforcement action pursuant to M.G.L. c. 21E, 310 CMR 40.0000 or any other law which the department has the authority to enforce.
- (6) The inclusion of a site on any list published or maintained by the Department in accordance with 310 CMR 40.0168(3) shall be sufficient for purposes of M.G.L. c. 21E, § 10(b)(1)(B)(i).
- (7) The Department shall make appropriate notations to its databases and the lists published and maintained in accordance with 310 CMR 40.0168 to reflect the Department's receipt of LSP Evaluation Opinions and Permanent or Temporary Solution Statements for disposal sites and LTBI's identified therein.
- (8) Any person who has reason to believe that the Department has listed a disposal site or LTBI, or the status thereof, in error may request, in writing, that the Department make appropriate changes to the pertinent list.
- (9) The Department's listing of any disposal site or LTBI in accordance with 310 CMR 40.0168, shall not be subject to M.G.L. c. 30A, or any other law, governing adjudicatory proceedings.

40.0169: The Role of Licensed Site Professionals

- (1) RPs, PRPs and Other Persons shall engage or employ the services of one or more LSPs as necessary to meet the requirements of 310 CMR 40.0000.

40.0169: continued

(2) The Department will designate as an LSP-of-Record for a site any LSP whose signature and seal appears on any document received by the Department with respect to a site. An LSP whose engagement or employment terminates in connection with a site at which he or she is designated as an LSP-of-Record shall notify the Department in writing within 21 days of such termination.

(3) LSPs shall render Opinions only in accordance with M.G.L. c. 21A, §§ 19 through 19J, 309 CMR 4.00: *Rules of Professional Conduct* and 6.00: *Design and Use of Licensed Site Professional's Seal*, M.G.L. c. 21E, 310 CMR 40.0000 and other applicable laws.

40.0170: The Role of RPs, PRPs and Other Persons in Response Actions

(1) RPs, PRPs, and secured lenders and fiduciaries who hold title to or possession of a site or vessel, shall notify the Department of a release or threat of release of oil and/or hazardous material and of any Imminent Hazards in accordance with 310 CMR 40.0300.

(2) RPs, PRPs and Other Persons shall obtain all necessary permits and approvals before undertaking a response action.

(3) No person shall undertake any response action for which a permit or approval has been issued by the Department in any manner not in conformance with the terms and conditions thereof.

(4) RPs, PRPs and Other Persons shall perform response actions in accordance with the following:

- (a) except as expressly provided by 310 CMR 40.0000, each and every response action shall be properly and promptly performed within deadlines prescribed by, or pursuant to, M.G.L. c. 21E and/or 310 CMR 40.0000, including any Interim Deadlines;
- (b) each RP, PRP or Other Person, or group of RPs, PRPs or Other Persons, who is undertaking or intends to undertake one or more response actions shall participate in and/or conduct, whichever is applicable, Public Involvement Activities in accordance with M.G.L. c. 21E, § 14, 310 CMR 40.1400 and any other applicable requirements; and
- (c) each RP, PRP or Other Person, or group of RPs, PRPs or Other Persons, performing a response action shall identify all permits, licenses or other approvals which may be required by any local, state or federal agency, and any agreements necessary to conduct a response action, and shall proceed to obtain the necessary permits, licenses, approvals, and agreements sufficiently far in advance of deadlines imposed by M.G.L. c. 21E, 310 CMR 40.0000 or any other applicable requirements to enable him or her to complete response actions by such deadlines.

(5) Where necessary to ensure the timely and proper performance and completion of response actions, the Department may require that a RP, PRP or Other Person undertaking response actions provide assurance to the Department that the RP, PRP or Other Person has sufficient financial resources to perform the response action or a specific portion thereof. The Department may require such persons to provide such financial assurance at any time during the performance of a response action. Examples of the financial assurance mechanisms which may be required by the Department include, but are not limited to, trust funds, stand-by trust funds, letters of credit, escrow deposits and surety bonds.

(6) In the event that a RP or PRP requests an opportunity to perform a response action at any time after the Department has commenced a response action, the Department may require that the RP or PRP either pay, or provide a financial assurance mechanism for the payment of, all Costs the Department has incurred in connection with the disposal site prior to allowing the RP or PRP to conduct the remainder of the response action.

(7) The Department may refuse to allow a RP, PRP or Other Person to perform a response action, unless the Department is persuaded that:

- (a) the RP, PRP or Other Person will comply with the deadlines and time periods for taking such actions imposed by M.G.L. c. 21E, 310 CMR 40.0000 and/or any order, permit or approval issued by the Department;

40.0170: continued

- (b) the RP's, PRP's or Other Person's performance of the response action will not result in or cause a hazard, or exacerbate an existing hazard, to health, safety, public welfare or the environment;
- (c) the RP, PRP or Other Person will otherwise conduct the response action in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable laws; and
- (d) the RP, PRP or Other Person has a satisfactory record of compliance with the statutes, regulations and other requirements administered or enforced by the Department.

(8) The Department may enter into a consent order with a RP, PRP or Other Person which sets forth necessary response actions, time periods and deadlines for the performance thereof and requirements for submittals to the Department. Each such consent order may include provisions regarding contribution protection, site access, cost recovery, processes for resolving disputes arising under such consent order, and any other matter.

(9) Other Persons undertaking response actions at sites may discontinue such response actions without being deemed by the Department to have acquired liability under M.G.L. c. 21E solely on the basis of having voluntarily conducted such response actions and without being deemed in noncompliance with future deadlines, provided, such persons:

- (a) notify the Department in writing of their intent to discontinue response actions at the site prior to the running of an applicable deadline;
- (b) submit a Status Report to the Department informing the Department of the status of the work conducted at the site at the time of providing the notice required by 310 CMR 40.0170(9); and
- (c) do not cause or contribute to the release at the disposal site or cause the release, or the disposal site, to become worse than it otherwise would have been had such response actions not been performed.

In the event an Other Person is conducting response actions at a disposal site pursuant to a Tier I or Tier II Classification, the Department will stop assessing such Other Person annual compliance assurance fees upon the Department's receipt of the notice and Status Report required by 310 CMR 40.0170(9)(a) and (b); provided, however, that payment of such fees shall be required for the billable year in which such notice and Status Report is received.

(10) No provision of 310 CMR 40.0000 shall be construed to imply that only one person may undertake response actions at a disposal site.

40.0171: Failure to Perform a Response Action

In the event that a RP, PRP or Other Person initiates a response action that is determined by the Department to be in noncompliance with M.G.L. c. 21E, 310 CMR 40.0000 or any other applicable requirement, or in the event that no person undertakes a necessary response action, the Department may take any or all of the following actions:

- (1) proceed to perform or arrange for the performance of the response action;
- (2) negotiate a consent order with the RP, PRP or Other Person for the completion of the response action;
- (3) issue an order under M.G.L. c. 21E, §§ 9 or 10, to the RP, PRP or Other Person to perform the response action; and
- (4) take any other action and seek any other relief authorized by M.G.L. c. 21E, 310 CMR 40.0000 or any other law.

40.0172: Technical, Financial and Legal Inabilities

- (1) General Requirements. Each RP and PRP, and any Other Person when such person is performing response actions under 310 CMR 40.0000, who has reason to believe that one or more necessary response actions are beyond his or her technical, financial or legal ability to perform shall promptly notify the Department in writing upon gaining knowledge of such inability. Each RP and PRP shall complete those response actions and portions of response actions which are within his or her technical, financial and legal ability to perform. Each RP and PRP shall make reasonable efforts to pursue civil and administrative procedures available to remedy each such technical, financial or legal inability.
- (2) No person may claim that any necessary response action is beyond his or her technical ability to perform unless he or she submits with such notice a Phase III Report prepared in accordance with 310 CMR 40.0850 which indicates that neither feasible Temporary Solutions, nor feasible Permanent Solutions, exist for the disposal site.
- (3) Upon obtaining reason to believe that one or more response actions are beyond his or her financial ability to perform, an RP or PRP shall undertake, to the extent that he or she has sufficient assets available, reasonable steps to:
 - (a) implement one or more Temporary Solutions on all or portions of the site that will, at a minimum, prevent the exposure of persons to oil and/or hazardous materials and otherwise reduce the risks of harm posed by the disposal site to health, safety, public welfare and the environment;
 - (b) implement one or more Temporary Solutions that will contain the further release or threat of release of oil and/or hazardous material from a structure or container; and
 - (c) implement Immediate Response Actions to abate or prevent Imminent Hazards and/or to address a Condition of Substantial Release Migration.
- (4) Content of Notice. The notice required by 310 CMR 40.0172(1) shall include all of the following:
 - (a) the name, location and Release Tracking Number(s) assigned by the Department to the site;
 - (b) the name, address and telephone number of the RP, PRP or Other Person providing the notice;
 - (c) a clear and concise statement of the facts which demonstrate such person's technical, financial or legal inability;
 - (d) a plan prepared by an LSP for implementing the measures required by 310 CMR 40.0172(3) to the extent such person has sufficient assets available; and
 - (e) a description, including but not limited to an implementation schedule, of the measures such person is taking, or intends to take, to remedy such inability.
- (5) Effect of Providing Notice. If the Department determines that:
 - (a) a response action is beyond a RP's or PRP's technical, financial or legal ability to perform; and
 - (b) such person has provided the notice required by 310 CMR 40.0172(4) in good faith, such inability shall be a defense to any civil administrative penalty that the Department seeks to assess for noncompliance arising out of such inability with any deadline or time period established pursuant to M.G.L. c. 21E, 310 CMR 40.0000 and/or any order, permit or approval issued thereunder, except a violation of any Notification Requirement, that commences after the date of the Department's receipt of such notice; provided, however, that this defense shall not be available for any violations that occur or continue after such inability ceases. The RP or PRP claiming any such inability shall have the burden of establishing such inability by a preponderance of the evidence in any such proceeding.
- (6) Submittal of the notice required by 310 CMR 40.0172(4) shall not relieve any person from any obligation for the cost of response actions related to the site for which that person is legally responsible or in any way affect any legal or equitable right of the Department to issue any future order with respect to the site that is the subject of the notice or any other claim, action, suit, cause of action or demand which the Department may have with respect to the site, except as provided by 310 CMR 40.0172(5).

40.0172: continued

(7) Effect of Failure to Provide Notice. M.G.L. c. 21E, § 5(e) provides a defense to an action by the Commonwealth for recovery of two to three times the full amount of the Department's Response Action Costs against a Responsible Party. A person who fails to provide the notice required by 310 CMR 40.0172, or provides such notice without a good faith basis, may be held liable under M.G.L. c. 21E, § 5(e), for up to three times the full amount of the Department's Response Action Costs incurred with respect to the site at issue, plus litigation costs and attorneys' fees, in an action for recovery of those Costs by the Commonwealth.

40.0173: Site Access Authorization

(1) After making reasonable efforts to obtain reasonable access to any site or other location to be investigated as a possible site not owned by him or her, a RP, PRP or Other Person who is unable to obtain such access may request, in writing, that the Department authorize him or her, or his or her employees, agents, representatives or contractors, to enter such site or location for the purpose of performing one or more necessary response actions. Each such request for authorization shall include all of the following information:

- (a) the identity of the person making the request and his or her relationship to the site or location;
- (b) the nature and location of the response action(s) that he or she intends to undertake, the anticipated duration of the response action(s) and the reason(s) such access is necessary to perform the response action(s);
- (c) the identity of the person or persons who own or operate the site or location to which the Department's authorization for access is sought;
- (d) the results of any and all attempts to obtain such access; and
- (e) certification that a copy of the request has been sent to each person or persons who own or operate such sites or locations.

(2) Any person who intends to submit such a request for authorization to the Department shall send a copy thereof to each person who owns and operates the site or location to which access is sought by certified mail, return receipt requested, and a statement informing such person that he or she may file a response thereto with the Department in accordance with 310 CMR 40.0173, prior to submitting the request to the Department. Each person to whom a copy of the request is sent may submit a response to the request, in writing, to the Department.

(3) The Department may take any of the following actions in response to a request for such authorization:

- (a) the Department may authorize any person, in writing, pursuant to its authority under M.G.L. c. 21E, § 8, to enter any site, vessel or location upon consent of the owner or operator thereof for the purpose of performing one or more response actions in accordance with any terms, conditions or requirements established by the Department;
- (b) the Department may issue to any person a Request for Information;
- (c) the Department may issue an order under M.G.L. c. 21E, §§ 9 or 10, requiring any person to perform one or more response actions;
- (d) the Department may seek and execute an administrative inspection warrant or criminal search warrant in accordance with applicable law;
- (e) the Department may take or arrange the performance of any necessary response action in accordance with M.G.L. c. 21E and 310 CMR 40.0000;
- (f) the Department may issue a Notice of Responsibility to any person who is a PRP; and
- (g) the Department may deny the request or take any other action authorized by M.G.L. c. 21E, 310 CMR 40.0000 or any other law.

(4) In addition to the actions set forth in 310 CMR 40.0173(3), the Department may designate as its authorized representative for the purpose of access one or more RPs, PRPs or Other Persons, including employees, agents and contractors of such parties. The Department may exercise the authority contained in M.G.L. c. 21E, § 8, to obtain access for its designated representative. An RP, PRP or Other Person may only be designated as the Department's authorized representative if such person has agreed to serve as the Department's designated representative and to indemnify the Department to the Department's satisfaction for any injuries or damages that occur as a result of the activities undertaken by such person pursuant to such designation.

40.0173: continued

(5) The Department's decision in response to a request for Site Access Authorization under 310 CMR 40.0173 shall not be subject to M.G.L. c. 30A, or any other law, governing adjudicatory proceedings.

(6) The authority in 310 CMR 40.0173 is intended to be exercised at the Department's discretion. No provision in 310 CMR 40.0173 shall be construed to create in any person a right to the Department's authorization for access or to create any duty of the Department to obtain access to any site or other location for any person.

40.0180: Downgradient Property Status

310 CMR 40.0181 through 40.0189, cited collectively as 310 CMR 40.0180, sets forth the requirements and procedures for asserting and maintaining a Downgradient Property Status.

40.0181: Purpose

The purposes for enabling an owner or operator of property which comprises a portion of a disposal site and which is located downgradient of a property which is the source of the release of oil and/or hazardous material located thereon to establish Downgradient Property Status are:

- (1) to establish requirements, procedures and deadlines applicable to properties downgradient from a release of oil and/or hazardous material which comprise a portion of a disposal site;
- (2) to limit the assessment of annual compliance assurance fees under 310 CMR 4.00 while the activities required by 310 CMR 40.0185 are on-going; and
- (3) to facilitate access to properties which comprise a portion of a disposal site by persons undertaking response actions.

40.0182: Applicability

Any person who is liable or potentially liable under M.G.L. c. 21E, § 5(a)(1) or (2) for certain releases of oil and/or hazardous material on Downgradient Property, and who satisfies the requirements and procedures set forth in 310 CMR 40.0183 or 40.0187, may submit to the Department a Downgradient Property Status Submittal in accordance with 310 CMR 40.0183(3), or a Modification of a Downgradient Property Status Submittal in accordance with 310 CMR 40.0187(2).

40.0183: General Requirements and Procedures for Asserting Downgradient Property Status

- (1) General. Any person who meets the requirements of, and complies with the procedures in, 310 CMR 40.0183 and 40.0185 shall have Downgradient Property Status for purposes of 310 CMR 40.0184, unless and until such Status is terminated in accordance with 310 CMR 40.0186.
- (2) Criteria. Any present or past owner or operator of a downgradient or downstream property where a release of oil and/or hazardous material has come to be located may provide a Downgradient Property Status Submittal to the Department if all of the following are met:
 - (a) such person has notified the Department of the release if notification is required by 310 CMR 40.0300;
 - (b) the source of the release of oil and/or hazardous material at the downgradient or downstream property is or was located on one or more upgradient or upstream location(s) and oil and/or hazardous material from that location(s) has come to be located at the downgradient or downstream property as a result of migration of the oil and/or hazardous material in or on groundwater or surface water, regardless of whether the upgradient or upstream location(s) which is the source has been identified as the source of the release(s);
 - (c) no act of such person has contributed to the release described in 310 CMR 40.0183(2)(b), or caused such release to become worse than it otherwise would have been;

40.0183: continued

- (d) such person is not, and was not at any time, affiliated with any other person:
 - 1. who owned or operated the property from which the release described in 310 CMR 40.0183(2)(b) originated, or caused such release; and
 - 2. who is potentially liable under M.G.L. c. 21E for the disposal site through any direct or indirect contractual, corporate or financial relationship other than:
 - a. that established by any instrument creating such person's interest in the downgradient property; or
 - b. that established by an instrument wholly unrelated to the disposal site and which would not otherwise render such person potentially liable as a result of the relationship; and
- (e) to the extent such person has performed response actions at the disposal site, those response actions have been performed in compliance with the requirements and procedures in M.G.L. c. 21E and 310 CMR 40.0000.

(3) Content of Submittal. A Downgradient Property Status Submittal shall consist of the following:

- (a) a completed transmittal form established by the Department for such purposes;
- (b) a Downgradient Property Status Opinion prepared in accordance with 310 CMR 40.0015 and 310 CMR 40.0183(4);
- (c) the certification required by 310 CMR 40.0009; and
- (d) the fee, if applicable, required by 310 CMR 4.03: *Annual Compliance Assurance Fee*.

(4) Performance Standard for a Downgradient Property Status Opinion. A Downgradient Property Status Opinion shall be based on investigative and assessment actions of sufficient scope and level of effort to conclude that the criteria in 310 CMR 40.0183(2)(b) have been met. The Opinion shall include an explanation and documentation of the technical basis for the conclusions stated therein, and be based on the following:

- (a) an evaluation of the boundaries of the property which is the subject of the Opinion;
- (b) an evaluation of the disposal site boundaries, to the extent they have been defined by assessments conducted to date;
- (c) an evaluation of the releases of oil and/or hazardous material at the disposal site, to the extent that such releases have been identified;
- (d) an evaluation of the relevant hydrogeologic conditions, including, at a minimum, groundwater flow direction and local transport characteristics based on field data, when migration of oil and/or hazardous material has occurred via groundwater;
- (e) a plan showing the downgradient or downstream property and the disposal site boundaries (to the extent known), the locations of any known or suspected source(s) of oil and/or hazardous material(s) release(s) that have come to be located at the downgradient or downstream property, the direction of groundwater flow and/or surface water flow (as appropriate), the locations where samples were collected for analysis, and the results of the analyses; and
- (f) an evaluation of the need to conduct an Immediate Response Action, as defined in 310 CMR 40.0412.

(5) Notice to Abutters and PRPs. Prior to, or concurrent with, providing the Downgradient Property Status Submittal to the Department, the person providing such Submittal shall provide a copy of the Downgradient Property Status Opinion to each of the following persons:

- (a) the owners and operators of abutting property upgradient and downgradient from the property which is the subject of the Submittal and, where the abutting upgradient and/or downgradient property is a public way, the owners and operators of the next upgradient and/or downgradient property; and
- (b) the owners and operators of any property which is a known or suspected source of the release.

(6) Public Involvement. Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400. Public Involvement Activities required for Downgradient Property Status specifically include 310 CMR 40.1403(3)(g).

40.0184: Effect of Providing a Downgradient Property Status Submittal or a Modification of a Downgradient Property Status Submittal

- (1) Any person who establishes and maintains Downgradient Property Status in accordance with the requirements and procedures in 310 CMR 40.0180 shall not be subject to the subsequent deadlines for Tier Classification and Comprehensive Response Actions in 310 CMR 40.0500, unless and until such Status is terminated in accordance with 310 CMR 40.0186.
- (2) Upon receipt of a Downgradient Property Status Submittal or a Modification of a Downgradient Property Status Submittal filed in accordance with 310 CMR 40.0183 or 40.0187, respectively, the Department shall suspend the assessment of Tier I or Tier II annual compliance assurance fees, if applicable, on the person making such Submittal; provided, however, that payment of such fees shall be required for the billable year in which the Submittal is provided to the Department, except as provided in 310 CMR 4.03: *Annual Compliance Assurance Fee*.
- (3) The provision of a Downgradient Property Status Submittal, or a Modification of a Downgradient Property Status Submittal, to the Department shall not relieve any person from any prospective obligation to provide notification in accordance with 310 CMR 40.0300 or to perform Immediate Response Actions required by 310 CMR 40.0410. Any person providing a Downgradient Property Status Submittal, or a Modification of a Downgradient Property Status Submittal, to the Department may perform Release Abatement Measures in accordance with 310 CMR 40.0440, Utility-related Abatement Measures in accordance with 310 CMR 40.0460, and/or a Phase I - Initial Site Investigation Activities in accordance with 310 CMR 40.0480.
- (4) The provision of a Downgradient Property Status Submittal, or a Modification of a Downgradient Property Status Submittal, to the Department shall not relieve any person from any obligation for the cost of response actions related to the disposal site for which that person is legally responsible or in any way affect any legal or equitable right of the Department to issue any future order with respect to the disposal site that is the subject of the Submittal or any other claim, action, suit, cause of action or demand which the Department may have with respect to the disposal site, except as provided by 310 CMR 40.0184(1).
- (5) No provision in 310 CMR 40.0180 shall be construed to relieve any person from any obligation to conduct response actions in response to any release of oil and/or hazardous material which does not meet the criteria in 310 CMR 40.0183(2)(b).
- (6) The provision of a Downgradient Property Status Submittal, or a Modification of a Downgradient Property Status Submittal, to the Department pursuant to 310 CMR 40.0183 or 310 CMR 40.0187, respectively, shall not be construed as, or operate as, barring, diminishing, or in any way affecting any legal or equitable right, defense, claim, demand or cause of action that the person providing such Submittal may have under applicable law.

40.0185: Maintenance of Downgradient Property Status

- (1) Each person providing a Downgradient Property Status Submittal, or a Modification of a Downgradient Property Status Submittal, to the Department shall meet the following requirements to maintain such Downgradient Property Status:
 - (a) no act of such person causes the release, contributes to the release, or causes such release to become worse than it otherwise would be;
 - (b) to the extent that such person has ownership or possession of the downgradient property, such person provides reasonable access to the downgradient property which is the subject of the Downgradient Property Status Submittal to employees, agents, and contractors of the Department and to other persons conducting response actions;
 - (c) such person takes reasonable steps at the downgradient property that is subject to the Submittal to prevent:
 1. the exposure of human and environmental receptors to oil and/or hazardous material by fencing or otherwise preventing access; and
 2. an Imminent Hazard by conducting Immediate Response Actions;

40.0185: continued

- (d) if such person elects to undertake response actions after providing the Submittal to the Department, conducts such response actions in compliance with M.G.L. c. 21E and 310 CMR 40.0000;
- (e) such person makes reasonable efforts to identify persons who may be responsible or potentially responsible for the release and provides the notice required by 310 CMR 40.0183(5) to such persons; and
- (f) such person does not unreasonably impede or interfere with the implementation of current or likely response actions or the restoration of natural resources by any person.

(2) Based upon site-specific circumstances, the Department may require a person who provides a Downgradient Property Status Submittal, or a Modification of a Downgradient Property Status Submittal, to the Department to develop and implement a management plan for the property in order to prevent, eliminate, or minimize danger to health, safety, public welfare and/or the environment.

40.0186: Termination of Downgradient Property Status

- (1) Downgradient Property Status shall terminate if:
 - (a) information indicates that the criteria in 310 CMR 40.0183(2) are no longer being met;
 - (b) the person providing the Downgradient Property Status Submittal fails to meet the requirements in 310 CMR 40.0185 for maintaining such Status;
 - (c) the person providing the Downgradient Property Status Submittal notifies the Department in writing that such person intends to perform Comprehensive Response Actions in accordance with 310 CMR 40.0800;
 - (d) the Department establishes Interim Deadlines in accordance with 310 CMR 40.0167 for the person providing the Downgradient Property Status Submittal; or
 - (e) the Downgradient Property Status Submittal or Modification of a Downgradient Property Status Submittal is modified to terminate Downgradient Property Status.
- (2) Any person having Downgradient Property Status who gains knowledge of information which indicates that the criteria in 310 CMR 40.0183(2) are no longer being met shall provide written notice thereof to the Department within 60 days of gaining such knowledge.
- (3) Any person having Downgradient Property Status may terminate such Status by providing the Department with written notice of his or her intent to terminate such Status. The termination shall become effective upon the Department's receipt of such notice.

40.0187: Modification of a Downgradient Property Status Submittal

- (1) General. Any present or past owner or operator of a downgradient property with Downgradient Property Status may provide a Modification of a Downgradient Property Status Submittal to the Department if all of the following are met:
 - (a) the criteria specified in 310 CMR 40.0183(2);
 - (b) if a Modification of a Downgradient Property Status Submittal has not previously been submitted to the Department, the person seeking such Status obtains the written consent thereto of the person who previously submitted the Downgradient Property Status Submittal for the subject property; and
 - (c) if a Modification of a Downgradient Property Status Submittal has previously been submitted to the Department, the person seeking such Status obtains the written consent thereto of the person who most recently submitted a Modification of a Downgradient Property Status Submittal for the subject property.
- (2) Content of Submittal. A Modification of a Downgradient Property Status Submittal shall consist of the following:
 - (a) a completed transmittal form established by the Department for such purposes;
 - (b) the certification required by 310 CMR 40.0009 by the person making such Submittal;
 - (c) the written consent required by 310 CMR 40.0187(1)(b) or (c);

40.0187: continued

- (d) certification by the person whose consent is required by 310 CMR 40.0187(1)(b) or (c) that the Downgradient Property Status has been maintained in accordance with 310 CMR 40.0185;
- (e) certification by the person making such Submittal that he or she meets the criteria in 310 CMR 40.0183(2)(a),(c),(d), and (e); and
- (f) certification by the person making such Submittal that he or she has no information contrary to the conclusion stated in 310 CMR 40.0183(2)(b).

(3) Effect of Providing a Modification of a Downgradient Property Status Submittal. Any person who submits a Modification of a Downgradient Property Status Submittal to the Department in accordance with 310 CMR 40.0187 shall have Downgradient Property Status in accordance with 310 CMR 40.0184 unless and until such Status is terminated in accordance with 310 CMR 40.0186.

(4) Notice to Abutters and PRPs. Each person submitting a Modification of a Downgradient Property Status Submittal to the Department shall concurrently provide a copy of such Submittal to the persons described in 310 CMR 40.0183(5).

(5) Public Involvement. Each person submitting a Modification of a Downgradient Property Status Submittal to the Department shall conduct Public Involvement Activities in accordance with 310 CMR 40.1400. Public Involvement Activities required for a Modification of a Downgradient Property Status Submittal specifically include 310 CMR 40.1403(3)(g).

40.0190: General Requirements for Conducting Response Actions

(1) For each release or threat of release of oil and/or hazardous materials at a disposal site, one or more Permanent Solutions to the extent feasible shall be implemented by the applicable deadline to achieve a level of No Significant Risk. No disposal site shall be deemed to have had all the necessary and required response actions taken for such site unless and until a level of No Significant Risk exists or has been achieved in compliance with M.G.L. c. 21E and 310 CMR 40.0000.

(2) Permanent Solutions shall be implemented if:

- (a) a level of No Significant Risk does not yet exist at the disposal site;
- (b) Permanent Solutions are feasible; and
- (c) immediate implementation of one or more Permanent Solutions would be more cost-effective than phased implementation of Temporary Solutions and Permanent Solutions.

(3) At each disposal site, unless a level of No Significant Risk already exists or one or more Permanent Solutions is feasible and immediate implementation of such Permanent Solutions would be more cost-effective than phased implementation of Temporary Solutions and Permanent Solutions, one or more Temporary Solutions shall be implemented to the extent feasible by the applicable deadline. Such solutions shall eliminate any substantial hazard to health, safety, public welfare or the environment which is presented by the disposal site or by any oil and/or hazardous materials at or from the disposal site in the environment.

(4) If appropriate, Permanent Solutions or Temporary Solutions may be implemented on portions of a disposal site.

(5) Where feasible, implementation of a Permanent Solution shall include a measure or measures designed to reduce to the extent possible the level of oil and/or hazardous materials in the environment to background.

(6) In determining whether a Permanent Solution will achieve a level of No Significant Risk during any foreseeable period of time, the criteria and standards set forth in 310 CMR 40.0900 and any current or reasonably foreseeable uses of the site and the surrounding environment that may be affected by oil and/or hazardous materials at the site or in the surrounding environment shall be considered.

40.0190: continued

- (7) RPs, PRPs and Other Persons shall employ or engage persons having the appropriate training, and as required, currently valid licenses or certifications to conduct a response action at a disposal site.

40.0191: Response Action Performance Standard (RAPS)

- (1) The Response Action Performance Standard (RAPS) is the level of diligence reasonably necessary to obtain the quantity and quality of information adequate to assess a site and evaluate remedial action alternatives, and to design and implement specific remedial actions at a disposal site to achieve a level of No Significant Risk for any foreseeable period of time, as defined at 310 CMR 40.1005, and, where feasible, to reduce to the extent possible the level of oil and/or hazardous materials in the environment to background levels.
- (2) RAPS shall be employed during the performance of all response actions conducted pursuant to 310 CMR 40.0000, and shall include, without limitation, the following:
- (a) consideration of relevant policies and guidelines issued by the Department, EOEEA and EPA;
 - (b) use of accurate and up-to-date methods, models, standards and practices, equipment and technologies which are appropriate, available and generally accepted by the professional and trade communities conducting response actions in accordance with M.G.L. c. 21E and 310 CMR 40.0000 under similar circumstances; and
 - (c) investigative practices which are scientifically defensible, and of a level of precision and accuracy commensurate with the intended use of the results of such investigations.
- (3) The application of RAPS shall be protective of health, safety, public welfare and the environment and shall include, without limitation, in the context of meeting the requirements of this Contingency Plan, consideration of the following:
- (a) technologies which reuse, recycle, destroy, detoxify or treat oil and/or hazardous materials, where feasible, to minimize the need for long-term management of contamination at or from a disposal site;
 - (b) containment measures as feasible Permanent Solutions only where reuse, recycling, destruction, detoxification and treatment are not feasible;
 - (c) remedial actions to reduce the overall mass and volume of oil and/or hazardous material at a disposal site to the extent feasible, regardless of whether it is feasible to achieve one or more Temporary Solutions and/or Permanent Solutions or whether it is feasible to achieve background for the entire disposal site and not include the dilution of contaminated media with uncontaminated media;
 - (d) response actions to restore groundwater, where feasible, to the applicable standards of quality within a reasonable period of time to protect the existing and potential uses of such resources; and
 - (e) eliminating or reducing, to the extent practicable and consistent with response action requirements and objectives, total energy use, air pollutant emissions, greenhouse gases, water use, materials consumption, and ecosystem and water resources impacts, resulting from the performance of response actions through energy efficiency, renewable energy use, materials management, waste reduction, land management, and ecosystem protection.

40.0193: Technical Justification

- (1) A Licensed Site Professional may provide technical justification for forgoing any specific activity required by 310 CMR 40.0000, related to Initial Site Investigation Activities performed in accordance with 310 CMR 40.0405(1), Phase I Initial Site Investigation Activities performed in accordance with 310 CMR 40.0480 through 40.0483, Phase II Comprehensive Site Investigation Activities performed in accordance with 310 CMR 40.0830, and Phase III Identification and Evaluation of Response Action Alternatives performed in accordance with 310 CMR 40.0850 through 40.0860, if in his or her professional judgment any particular requirement is unnecessary or inappropriate based upon the conditions and characteristics of a disposal site. The LSP shall employ RAPS in determining whether any such activity is unnecessary or inappropriate.

40.0193: continued

(2) When forgoing any particular activity in accordance with 310 CMR 40.0193(1), the LSP shall identify such activity, and shall set forth the basis for such technical justification, in the pertinent submittal.

SUBPART C: NOTIFICATION OF RELEASES
AND THREATS OF RELEASE OF OIL AND HAZARDOUS MATERIAL;
IDENTIFICATION AND LISTING OF OIL AND HAZARDOUS MATERIAL

40.0300: Notification of Releases and Threats of Release of Oil and Hazardous Material; Identification and Listing of Oil and Hazardous Material

310 CMR 40.0301 through 40.0399, cited collectively as 310 CMR 40.0300, contain requirements and procedures for notifying the Department of releases and threats of release of oil and/or hazardous material.

40.0301: Purpose and Scope

(1) The purpose of 310 CMR 40.0300 is to identify oil and hazardous material which are subject to the provisions of this Contingency Plan, to identify those releases and threats of release of such oil and hazardous material that require notification to the Department, to set forth the time periods and procedures for notification, and to set forth provisions to allow limited removal of such oil and hazardous material under certain circumstances.

(2) Nothing in 310 CMR 40.0300 shall relieve any person described in M.G.L. c. 21E, § 5(a)(1) through (5) from any liability which that person would otherwise possess in connection with a release or threat of release of any oil or hazardous material that is listed at 310 CMR 40.1600, identified by characteristic in 310 CMR 40.0347 or otherwise meets either the definition of oil or the definition of hazardous material, which are set forth in 310 CMR 40.0006.

(3) The Department may take response actions, seek any reimbursement or compensation to which the Commonwealth is entitled, and/or pursue enforcement actions in connection with any release or threat of release of oil and/or hazardous material, provided, however, that the Department shall not seek penalties for failure to provide notification to the Department of any release or threat of release:

- (a) unless notification is required pursuant to the provisions of 310 CMR 40.0300, or
- (b) for which notification is exempted pursuant to the provisions of 310 CMR 40.0317.

40.0302: Applicability

(1) The provisions of 310 CMR 40.0300 shall apply to all releases and threats of release of oil and/or hazardous material to the environment, except as set forth in 310 CMR 40.0302(2).

(2) The notification requirements set forth in 310 CMR 40.0300 shall only apply to:

- (a) releases and threats of release that commence on or after October 1, 1993; and
- (b) releases and threats of release of which knowledge is possessed or obtained on or after October 1, 1993, by any person listed at 310 CMR 40.0331.

Notwithstanding any other provision hereof, the applicable "2 Hour", "72 Hour" and "120 Day" notification time periods which arise solely as a result of 310 CMR 40.0300 shall commence no earlier than October 1, 1993.

40.0303: Role of Licensed Site Professional

Persons required to provide oral and/or written notification to the Department of releases and threats of release of oil and/or hazardous material to the environment pursuant to the provisions of 310 CMR 40.0300 may wish to retain the services of competent individuals, time permitting, or as circumstances require, to investigate, evaluate, and/or otherwise facilitate the fulfillment of that requirement, but shall not be obligated to use a Licensed Site Professional for that purpose.

40.0310: Releases and Threats of Release Which Require Notification

40.0311: Releases Which Require Notification Within Two Hours

Except as provided in 310 CMR 40.0317 or 40.0332(1) or (7), persons required to notify under 310 CMR 40.0331 shall notify the Department as soon as possible but not more than two hours after obtaining knowledge that a release meets one or more of the following sets of criteria:

(1) a sudden, continuous or intermittent release to the environment of any hazardous material that is listed at 310 CMR 40.1600 or that exhibits one or more of the characteristics described in 310 CMR 40.0347, when:

- (a) the quantity of the release is equal to or greater than the applicable Reportable Quantity specified at 310 CMR 40.0352 or 40.1600; and
- (b) it is likely that the release occurred within any period of 24 consecutive hours or less;

(2) a sudden, continuous or intermittent release to the environment of any hazardous material that is listed at 310 CMR 40.1600 or that exhibits one or more of the characteristics described in 310 CMR 40.0347, when:

- (a) the quantity of the release is unknown;
- (b) it is likely that the quantity of the release is equal to or greater than the applicable Reportable Quantity specified at 310 CMR 40.0352 or 40.1600; and
- (c) it is likely that the release occurred within any period of 24 consecutive hours or less;

(3) a sudden, continuous or intermittent release to the environment of oil that is listed at 310 CMR 40.1600 when:

- (a) the quantity of the release is equal to or greater than the applicable Reportable Quantity specified at 310 CMR 40.0351 or 40.1600; and
- (b) it is likely that the release occurred within any period of 24 consecutive hours or less;

(4) a sudden, continuous or intermittent release to the environment of oil that is listed at 310 CMR 40.1600, when:

- (a) the quantity of the release is unknown;
- (b) it is likely that the quantity of the release is equal to or greater than the applicable Reportable Quantity specified at 310 CMR 40.1600; and
- (c) it is likely that the release occurred within any period of 24 consecutive hours or less;

(5) a sudden, continuous or intermittent release to the environment of any quantity of oil or waste oil that is listed at 310 CMR 40.1600 that results in the appearance of a sheen on surface water;

(6) a release to the environment indicated by the measurement of oil and/or hazardous material in a private drinking water supply well at concentrations equal to or greater than a Category RCGW-1 Reportable Concentration, as described in 310 CMR 40.0360 through 40.0369 and listed at 310 CMR 40.1600;

(7) any release of any oil and/or hazardous material, in any quantity or concentration, that poses or could pose an Imminent Hazard, as described in 310 CMR 40.0321 and 40.0950;

(8) any release of oil and/or hazardous material described in 310 CMR 40.0311(1) through (4) or 40.0311(7) that is indirectly discharged to the environment by means of discharge to a stormwater drainage system;

(9) any release of oil and/or hazardous material described in 310 CMR 40.0311(7) that is indirectly discharged into the environment by means of discharge to a sanitary sewerage system.

40.0312: Threats of Release Which Require Notification Within Two Hours

Except as provided in 310 CMR 40.0317 or 40.0332(1) or (7), persons required to notify under 310 CMR 40.0331 shall notify the Department as soon as possible but not more than two hours after obtaining knowledge that a threat of release meets one or more of the following sets of criteria:

40.0312: continued

- (1) a threat of release to the environment of oil and/or hazardous material that is listed at 310 CMR 40.1600 or that exhibits one or more of the characteristics described in 310 CMR 40.0347, when:
 - (a) it is likely that the release threatened is about to occur, including the presence of OHM in the bilge of a vessel; and
 - (b) it is likely that the quantity of the release, if it occurred, would be equal to or greater than the applicable Reportable Quantity specified at 310 CMR 40.0351, 40.0352 or 40.1600; or
- (2) a threat of release to the environment of oil and/or hazardous material that is listed at 310 CMR 40.1600 or that exhibits one or more of the characteristics described in 310 CMR 40.0347, which poses or could pose an Imminent Hazard, as described in 310 CMR 40.0321, irrespective of the quantity likely to be released.

40.0313: Releases Which Require Notification Within 72 Hours

Except as provided in 310 CMR 40.0317 or 40.0332(7), persons required to notify under 310 CMR 40.0331 shall notify the Department not more than 72 hours after obtaining knowledge that a release of oil and/or hazardous material(s) meets one or more of the following sets of criteria:

- (1) a release to the environment indicated by the presence of Nonaqueous Phase Liquid (NAPL) in a groundwater monitoring well, excavation, or subsurface structure in which NAPL has come to be located at a measured thickness equal to or greater than ½ inch (0.04 feet) at any location;
- (2) a release to the environment indicated by the presence of oil and/or hazardous material within ten feet of the exterior wall of an underground storage tank and ancillary piping, as established by measurement of equal to or greater than 100 parts-per-million (ppm) by volume of total organic vapors "as benzene" in the headspace of a soil or groundwater sample using a headspace screening method, and where such sample was obtained:
 - (a) greater than two feet below the ground surface; and
 - (b) as part of a closure assessment required pursuant to 310 CMR 80.00: *Underground Storage Tank Systems* and 40 CFR Parts 280 and 281, or in connection with the removal or closure of any underground storage tank otherwise regulated by M.G.L. c. 21O or c. 148;
- (3) a release to the environment indicated by the measurement of oil and/or hazardous material in the groundwater at concentrations equal to or greater than a Category RCGW-1 Reportable Concentration, as described in 310 CMR 40.0360 through 40.0369 and listed at 310 CMR 40.1600, within:
 - (a) the Zone I of a public water supply well; or
 - (b) 500 feet of a private water supply well; or
- (4) a Condition of Substantial Release Migration, where such condition is associated with a release for which notification otherwise is or has at any time in the past been required in accordance with 310 CMR 40.0300. A Condition of Substantial Release Migration means a condition at a disposal site that includes any of the following:
 - (a) releases that have resulted in the discharge of separate-phase oil and/or separate-phase hazardous material to surface waters, buildings, or underground utilities or conduits;
 - (b) releases to the ground surface or to the vadose zone that, if not promptly removed or contained, are likely to significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution;
 - (c) releases to the groundwater that have migrated or are expected to migrate more than 200 feet per year;
 - (d) releases to the groundwater that have been or are within one year likely to be detected in a public or private water supply well;
 - (e) releases to the groundwater that have been or are within one year likely to be detected in a surface water body, wetland, or public water supply reservoir; or

40.0313: continued

(f) releases to the groundwater or to the vadose zone that have resulted or have the potential to result in the discharge of vapors into a School, Daycare or Child Care Center or occupied Residential Dwelling. Conditions that indicate a potential discharge of vapors into a School, Daycare or Child Care Center or occupied Residential Dwelling include, but are not limited to:

1. soil or soil gas impacted with one or more volatile organic compounds within six feet, measured horizontally from the wall of the structure, and within ten feet measured vertically from the basement floor or foundation at concentrations that are likely to discharge vapors into the structure;
2. one or more volatile organic compound in the groundwater exceed the applicable Groundwater Category GW-2 Standard within 30 feet of the structure, and the average annual depth to groundwater in that area is 15 feet or less;
3. volatile Light Nonaqueous Phase Liquid (LNAPL) is present in a groundwater monitoring well, excavation, or subsurface depression within 30 feet of the structure at a measured thickness equal to or greater than 1/8 inch (0.01 feet); or
4. evidence of vapor migration along preferential pathways at a location that is likely to result in the discharge of vapors into the structure.

40.0314: Threats of Release Which Require Notification Within 72 Hours

Except as provided in 310 CMR 40.0317, persons required to notify under 310 CMR 40.0331 shall notify the Department not more than 72 hours after obtaining knowledge of a threat of release of oil and/or hazardous material to the environment from an Underground Storage Tank, as established by a tightness test failure pursuant to 310 CMR 80.32.

40.0315: Releases Which Require Notification Within 120 Days

Except as provided in 310 CMR 40.0317 or 40.0318, persons required to notify under 310 CMR 40.0331 shall notify the Department not more than 120 days after obtaining knowledge that a release meets one or more of the following sets of criteria:

- (1) a release to the environment indicated by the measurement of one or more hazardous materials in soil or groundwater in an amount equal to or greater than the applicable Reportable Concentration described in 310 CMR 40.0360 through 40.0369 and listed at 310 CMR 40.1600;
- (2) a release to the environment indicated by the measurement of oil and/or waste oil in soil in an amount equal to or greater than the applicable Reportable Concentration described in 310 CMR 40.0360 through 40.0369 and listed at 40.1600, where the total contiguous volume of the oil and/or waste oil contaminated soil is equal to or greater than two cubic yards;
- (3) a release to the environment indicated by the measurement of oil in groundwater in an amount equal to or greater than the applicable Reportable Concentration described in 310 CMR 40.0360 through 40.0369 and listed at 310 CMR 40.01600; or
- (4) a release to the environment indicated by the presence of a subsurface Nonaqueous Phase Liquid (NAPL) in a groundwater monitoring well, excavation, or other subsurface structure in which NAPL has come to be located at a measured thickness equal to or greater than 1/8 inch (0.01 feet), except where notification is otherwise required and has been made pursuant to 310 CMR 40.0313(1) or 310 CMR 40.0313(4)(f)..

40.0317: Releases and Threats of Release Which Do Not Require Notification

Notwithstanding the provisions of 310 CMR 40.0311 through 40.0315, the following releases and threats of release of oil and/or hazardous material are exempt from the notification requirements set forth in 310 CMR 40.0300:

- (1) releases of oil that occur during normal handling and transfer operations at an oil facility captured by a properly functioning oil/water separator; provided, however, that releases of oil that exceed the capacity of the oil/water separator and releases of oil from the oil/water separator itself which are in excess of its discharge permit limits or in a quantity equal to or greater than the Reportable Quantity shall be subject to the notification requirements set forth in 310 CMR 40.0300;
- (2) releases or threats of release of gasoline or diesel fuel that result from the rupture of the fuel tank of a passenger vehicle as a result of an accident involving that vehicle;
- (3) releases of oil and/or hazardous material that are discharged or emitted from an outfall, stack or other point source, or as fugitive emissions, any of which are regulated under and have received a valid permit, license, or approval, or which are operating under a valid registration, order or guideline issued under a federal or state statute or regulation, unless the release:
 - (a) exceeds the amount allowed by the permit, license, approval, registration, order or guideline; and
 - (b) represents an Imminent Hazard to health, safety, public welfare or the environment. This provision shall not relieve any person from any other duty to notify which may exist under any other statute or regulation, nor shall it in any way limit the authority of any other agency, political subdivision or authority of the federal or state government or of any office or division of the Department to enforce or otherwise carry out the duties assigned to it by law;
- (4) releases of radionuclides regulated by EPA under 42 USC § 9602, 33 USC §§ 1321 and 1361, and 40 CFR Part 302 *et seq.*;
- (5) releases of forbidden, Class A or Class B explosives, as defined in 49 CFR §§ 173.50, 173.53 and 173.88 respectively, if the explosives are under military transport or supervision and the U.S. Army Explosive Ordnance responds to the release;
- (6) releases of methane, propane, and other component compounds associated with a release of natural gas, natural gas liquids and liquified natural gas;
- (7) sheens:
 - (a) resulting from emissions or discharges from outboard motors in recreational use; or
 - (b) associated with normal surface water runoff from roadways, driveways, and parking lots;
- (8) releases of hazardous material indicated by residues in the environment:
 - (a) emanating from a point of original application of lead-based paint;
 - (b) resulting from emissions from the exhaust of an engine; or
 - (c) resulting from the application of pesticides in a manner consistent with their labelling;
- (9) releases of oil and/or hazardous material related to coal, coal ash, or wood ash, excluding wood ash resulting from the combustion of lumber or wood products that have been treated with chemical preservatives;
- (10) releases of oil and/or hazardous material resulting from the land application, reuse, or disposal of wastewater residuals and/or dredged spoils conducted in accordance with an approval, permit or certification issued by the Department under the authority of 310 CMR 32.00: *Land Application of Sludge and Septage*, 314 CMR 9.00: *401 Water Quality Certification for Discharge of Dredged or Fill Material, Dredging, and Dredged Material Disposal in Waters of the United States Within the Commonwealth*, M.G.L. c. 21, §§ 26 through 53, M.G.L. c. 111, § 17, M.G.L. c. 83, § 6 and 7 and c. 21A, § 14 and any regulations promulgated thereunder;
- (11) releases of oil and/or hazardous material in groundwater detected by sampling conducted by Public Water Supply owners or operators under 310 CMR 22.00: *Drinking Water* as indicated by the presence of oil and/or hazardous material in a public water supply source;

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- (12) releases of oil and/or hazardous material resulting or emanating from:
 - (a) the asphalt binder in bituminous pavement;
 - (b) piers, pilings and building foundation structures;
 - (c) landscaping timbers in use;
 - (d) utility poles in use; or
 - (e) building materials that are in good repair and still serving their original intended use;
- (13) releases indicated solely by the presence of oil and/or hazardous material in soils that are treated, recycled, reused or disposed of at a facility licensed, permitted or approved by the Department, provided that:
 - (a) the soil has been excavated and transported either from a disposal site in compliance with 310 CMR 40.0000 or from a location that is not a disposal site in compliance with all applicable regulations and license, permit or approval requirements; and
 - (b) the facility is operated in a manner consistent with the terms and conditions of its license, permit or approval;
- (14) releases of oil and/or hazardous material that require notification solely because an RP, PRP or Other Person obtains knowledge of media concentrations and/or site conditions that meet one or more of the sets of criteria set forth in 310 CMR 40.0311 through 40.0315, when such media concentration value(s) and/or knowledge of site conditions resulted from a sampling, analytical or observational error, as established by a preponderance of the evidence and/or as verified by additional sampling, analyses, and/or observation, within the applicable time period for notification;
- (15) releases of oil and/or hazardous material that require notification solely because an RP, PRP or Other Person obtains knowledge of soil concentrations equal to or greater than one or more applicable Reportable Concentrations, as specified in 310 CMR 40.0315, where a Limited Removal Action conducted under the provisions of 310 CMR 40.0318 has reduced soil concentrations of oil and/or hazardous material at the disposal site to an amount less than the Reportable Concentration(s), within the allowable time period for notification;
- (16) releases indicated by the presence of oil and/or hazardous material in concentrations or quantities which would otherwise meet one or more of the sets of criteria set forth in 310 CMR 40.0313 through 310 CMR 40.0315 at a disposal site where:
 - (a) a response action is being undertaken in compliance with the provisions of 310 CMR 40.0000 to address such release;
 - (b) a release notification was previously provided to the Department for the disposal site on which the release has been observed or documented; and
 - (c) such presence of oil and/or hazardous material is consistent with the types, nature, exposure potential and quantities of oil and/or hazardous material for which that notification was provided to the Department;
- (17) releases indicated by the presence of oil and/or hazardous material at disposal sites for which a determination or statement as specified in 310 CMR 40.0317(17)(a) through (f) has been provided, in concentrations that would otherwise meet one or more of the sets of criteria set forth in 310 CMR 40.0313 or 40.0315, unless the presence of such oil and/or hazardous material would negate or change such determinations or statements were that presence taken into account in the preparation thereof, or changes in activities, uses, and/or exposures at the disposal site require notification to the Department pursuant to the provisions of 310 CMR 40.0020. In this context, determinations or statements include:
 - (a) a disposal site where a Permanent Solution Statement has been submitted to the Department in compliance with the provisions of 310 CMR 40.1000;
 - (b) a disposal site where a Class A or Class B Response Action Outcome Statement has been submitted to the Department in compliance with the provisions of 310 CMR 40.1000;
 - (c) a disposal site where a No Further Action Letter has been submitted to the Department in compliance with the provisions of 310 CMR 40.0600;
 - (d) a disposal site where the Department has made a written determination that no further actions are required;

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(e) a disposal site where an LSP Evaluation Opinion has been submitted to the Department in compliance with 310 CMR 40.0600 stating either that the site is not a disposal site for which notification is required pursuant to 310 CMR 40.0300 and no further response actions are required or that completed response actions meet the requirements of a Response Action Outcome; or

(f) a disposal site where a Waiver Completion Statement has been submitted to the Department in compliance with the provisions of 310 CMR 40.537 and/or 40.0630.

(18) threats of release indicated by the outcome of tank tests specified in 310 CMR 40.0314, where a tank test outcome has resulted from a testing error, as documented within the allowable time period for notification by an additional test conducted on identical and unrepaired underground storage tank system elements;

(19) releases of oil and/or hazardous material to:

(a) an underground utility vault if such releases are completely contained within the vault; or

(b) the interior of a building, provided such releases are completely contained within the building;

(20) releases of trihalomethanes (chloroform, bromodichloromethane, dibromochloromethane or bromoform) in groundwater attributable to naturally-occurring ecological processes or leakage or discharges from a public water supply system based on appropriate lines of evidence;

(21) releases of oil or waste oil of less than a Reportable Quantity that result in a sheen on a surface water, provided that:

(a) federal officials receive notice of such release pursuant to the Federal Water Pollution Control Act as amended;

(b) a response occurs as directed by those federal officials and according to other federal, state or local requirements applicable to such a release and response;

(c) the sheen does not persist for more than 24 consecutive hours; and

(d) the sheen does not recur at the same location within any 30 day period; and

(22) arsenic, beryllium or nickel in Boston Blue Clay or arsenic in an area documented by the U.S. Geological Survey or in other scientific literature as an area of elevated arsenic measured in soil or groundwater that

(a) is consistently present in the environment at and in the vicinity of the sampling location;

(b) is solely attributable to natural geologic or ecologic conditions; and

(c) has not been mobilized or transferred to another environmental medium or increased in concentration in an environmental medium as a result of anthropogenic activities.

(23) releases of propane, provided that such releases are managed according to the Massachusetts Division of Fire Services gas leak Emergency and Reporting Procedure in 527 CMR 6.00: *Liquefied Petroleum Gas Containers and Systems*.

(24) releases of liquid nitrogen or liquid oxygen, provided that such releases are managed according to requirements specified by local public safety officials overseeing the response.

40.0318: Limited Removal Actions

(1) Limited Removal Actions may be undertaken by RPs, PRPs or Other Persons prior to notification to the Department of those "120 Day Notification" releases described in 310 CMR 40.0315.

(2) Limited Removal Actions shall not be initiated or continued:

(a) after obtaining knowledge that a release or threat of release requires notification under the "2 Hour" or "72 Hour" notification provisions of 310 CMR 40.0311 through 40.0314, whether or not notification has been made to the Department; or

(b) following notification to the Department by any person listed at 310 CMR 40.0331 of any release or threat of release of oil and/or hazardous material at the disposal site which requires notification under 310 CMR 40.0315.

40.0318: continued

- (3) RPs, PRPs or Other Persons who undertake Limited Removal Actions shall conform to the Response Action Performance Standard specified in 310 CMR 40.0191.
- (4) Limited Removal Actions shall be restricted to the excavation and off-site recycling, reuse, treatment, and/or disposal of not more than the following cumulative volumes of soil removed from a disposal site with measured concentrations of oil or hazardous material equal to or greater than an applicable Reportable Concentration:
 - (a) not more than 100 cubic yards of soil contaminated solely by a release of oil, oil blends containing fuel oil additives registered in accordance with the regulations at 40 CFR 79, or waste oil; and
 - (b) not more than 20 cubic yards of soil contaminated by a release of hazardous material or a mixture of oil or waste oil and hazardous material.
- (5) All excavation activities conducted by an RP, PRP or Other Person as a Limited Removal Action shall occur within 120 days of obtaining knowledge of a release described in 310 CMR 40.0315.
- (6) All contaminated soil generated as a result of a Limited Removal Action shall be stockpiled, stored, characterized, transported, and recycled, reused, treated, or disposed of as set forth in 310 CMR 40.0030.
- (7) Records documenting:
 - (a) the concentrations of oil and/or hazardous material in soil at the disposal site following a Limited Removal Action; and
 - (b) the chemical characterization and volume of soil removed from a disposal site as part of a Limited Removal Action, shall be maintained by the RP, PRP or Other Person undertaking the Limited Removal Action for a minimum of five years or for so long as is required under 310 CMR 40.0014, whichever is longer.
- (8) Limited Removal Actions conducted in compliance with the provisions of 310 CMR 40.0318 shall not require oversight by a Licensed Site Professional, except for Limited Removal Actions that involve the use of the Bill of Lading soil management process described in 310 CMR 40.0030.
- (9) In those cases where volumes of contaminated soil encountered unexpectedly exceed initial estimates and the volumetric excavation limits specified in 310 CMR 40.0318(4), persons required to notify under 310 CMR 30.0331 shall notify the Department of the release at the disposal site within the allowable time period for notification, and the person conducting the Limited Removal Action shall either:
 - (a) cease remedial actions; or
 - (b) continue removal actions at the disposal site as a Release Abatement Measure, as specified in 310 CMR 40.0443.

40.0320: Releases and Threats of Release that Pose Imminent Hazards

40.0321: Reporting of Releases and Threats of Release that Pose or Could Pose an Imminent Hazard

- (1) For the purpose of fulfilling the "Two Hour" release notification obligations of 310 CMR 40.0311(7), the following releases shall be deemed to pose an Imminent Hazard to health, safety, public welfare and/or the environment:
 - (a) a release to the environment which results in the presence of oil and/or hazardous material vapors within buildings, structures, or underground utility conduits at a concentration equal to or greater than 10% of the Lower Explosive Limit;
 - (b) a release to the environment of reactive or explosive hazardous material, as described in 310 CMR 40.0347, which threatens human health or safety;
 - (c) a release to a roadway that endangers public safety;
 - (d) a release to the environment of oil and/or hazardous material which poses a significant risk to human health when present for even a short period of time, as specified in 310 CMR 40.0950;

40.0321: continued

- (e) a release to the environment of oil and/or hazardous material which produces immediate or acute adverse impacts to freshwater or saltwater fish populations; or
- (f) a release to the environment which produces readily apparent effects to human health, including respiratory distress or dermal irritation.

(2) For the purpose of fulfilling the "Two Hour" release notification obligations of 310 CMR 40.0311(7), the following releases could pose an Imminent Hazard to human health:

- (a) a release to the environment indicated by the measurement of oil and/or hazardous material in a private drinking water supply well at a concentration equal to or greater than ten times the Category RCGW-1 Reportable Concentration, as described in 310 CMR 40.0360 through 40.0369 and listed at 310 CMR 40.1600; or
- (b) a release to the environment indicated by the measurement of concentrations of hazardous material, equal to or greater than any of the following concentrations at the ground surface or within a depth of twelve inches below the ground surface, at any location within 500 feet of a residential dwelling, school, playground, recreation area or park, unless access by children is controlled or prevented by means of bituminous pavement, concrete, fence, or other physical barrier

Hazardous Material	CAS number	Concentration (ug/g dry wt)
Arsenic (total)	7440382	50
Cadmium (total)	7440439	1,000
Chromium (VI) (or Total Chromium in the absence of CrVI data)	18540299	200
Cyanide (available)	57125	100
Mercury (total)	7439976	400
Methyl Mercury	22967926	10
PCB (total)	1336363	20

or

- (c) a release to the environment for which estimated long-term risk levels associated with current exposures are greater than ten times the Cumulative Receptor Risk Limits in 310 CMR 40.0993(6). Past exposures may be included in such evaluations to the extent that it is reasonable to quantify those exposures.

(3) For the purpose of fulfilling the notification obligations of 310 CMR 40.0312(2), threats of release which pose or could pose an Imminent Hazard to health, safety, public welfare and/or the environment shall consist of any threat of release where, if the release were to occur, it is likely that that release would meet any of the criteria described in 310 CMR 40.0321(1) or (2).

(4) Notwithstanding the provisions of 310 CMR 40.0321(2) and 40.0321(3), a person required to notify under 310 CMR 40.0331 may demonstrate to the Department by a preponderance of the evidence that release or site conditions specified in 310 CMR 40.0321(2) and/or (3) do not constitute an actual Imminent Hazard to human health, in conformance with the Imminent Hazard Evaluation process described in 310 CMR 40.0426, and in consideration of the site-specific factors and the risk assessment and risk management criteria contained in 310 CMR 40.0950. No such demonstration, however, shall relieve any person of the obligation to notify the Department of a release or threat of release under the provisions of 310 CMR 40.0311 or 40.0312.

(5) No provision contained in 310 CMR 40.0321 shall limit the Department's authority to determine that an Imminent Hazard exists at any site, consistent with the provisions of 310 CMR 40.0950, nor shall any such provision limit the Department's authority to undertake response actions, seek any reimbursement or compensation due to the Commonwealth, or pursue enforcement actions in accordance with any such determination.

40.0322: Response Actions to Prevent or Abate Imminent Hazards

(1) An Immediate Response Action, as described in 310 CMR 40.0400, shall be taken to prevent, eliminate, or abate all Imminent Hazards.

40.0322: continued

- (2) Immediate Response Actions shall not be delayed or deferred at sites where continued inaction would likely result in the development of an Imminent Hazard condition.

40.0330: Notification Requirements and Procedures

40.0331: Who Shall Notify

- (1) The following persons shall notify the Department in accordance with 310 CMR 40.0300 of a release or threat of release of oil or hazardous material:

- (a) the owner or operator of a vessel or a site from or at which there is or has been a release or threat of release of oil and/or hazardous material;
- (b) any person who at the time of storage or disposal of any hazardous material owned or operated any site at or upon which such hazardous material was stored or disposed of and from which there is or has been a release or threat of release of hazardous material;
- (c) any person who by contract, agreement, or otherwise, directly or indirectly, arranged for the transport, disposal, storage or treatment of hazardous material to or in a site or vessel from or at which there is or has been a release or threat of release of hazardous material;
- (d) any person who, directly or indirectly, transported any hazardous material to transport, disposal, storage or treatment vessels or sites from or at which there is or has been a release or threat of release of such material;
- (e) any person who otherwise caused or is legally responsible for a release or threat of release of oil and/or hazardous material from a site or vessel;
- (f) any fiduciary who holds title to or possession of a site or vessel from or at which there is or has been a release or threat of release of oil and/or hazardous material;
- (g) any secured lender who holds title to or possession of a site or vessel from or at which there is or has been a release or threat of release of oil and/or hazardous material;
- (h) any agency of the Commonwealth or any public utility company that owns a right of way that is a site from or at which there is or has been a release or threat of release of oil and/or hazardous material; and
- (i) any person otherwise required to notify the Department of a release or threat of release pursuant to M.G.L. c. 21E.

- (2) If a release to the environment has occurred or a threat of release to the environment exists at any site or vessel and there is a substantial likelihood that such release or threat of release includes or would include oil and/or hazardous material which appears at 310 CMR 40.1600 or exhibits any of the characteristics described in 310 CMR 40.0347, then any owner, operator, or fiduciary or secured lender who holds title to or possession of such site or vessel, shall determine whether such is the case, and whether any such release or threat of release requires notification to the Department under 310 CMR 40.0300.

40.0332: Timing of Notifications

- (1) Two Hour Notifications. Notification to the Department of any release or threat of release specified in 310 CMR 40.0311 and 40.0312 shall be made as soon as possible but not more than two hours after obtaining knowledge that the release or threat of release meets one or more of the sets of notification criteria, unless the person responsible for notifying establishes, by a preponderance of the evidence, that extenuating circumstances prevented notification within said two hour time period. In that event, notification to the Department shall be made as soon as possible thereafter, taking into account the extenuating circumstances. Extenuating circumstances shall include, without limitation, the following:

- (a) a lack of reasonably available communication equipment at the site of the release or threat of release;
- (b) a need to take actions prior to notification in order to mitigate or prevent an Imminent Hazard and/or threat to public safety; and/or
- (c) a physical injury to the person responsible for notifying caused by or associated with the release or threat of release, when the injury reasonably prevents that person from notifying.

40.0332: continued

- (2) 72 Hour Notifications. Notification to the Department of any release or threat of release specified in 310 CMR 40.0313 and 40.0314 shall be made not more than 72 hours after obtaining knowledge that the release or threat of release meets one or more of the sets of notification criteria.
- (3) 120 Day Notifications. Notification to the Department of any release specified in 310 CMR 40.0315 shall be made not more than 120 days after obtaining knowledge that the release meets one or more of the sets of notification criteria, and prior to the commencement of any remedial actions at the site, with the exception of Limited Removal Actions, as set forth in 310 CMR 40.0318.
- (4) If a release or threat of release is subject to more than one notification time period, the shorter time period shall apply.
- (5) No provision of 310 CMR 40.0332 shall be construed to prevent a person responsible for notifying from implementing a response action necessary to mitigate or prevent an Imminent Hazard.
- (6) No provision of 310 CMR 40.0332 shall be construed to allow an unreasonable delay in notification of the Department after obtaining knowledge of a release or threat of release that meets one or more of the sets of notification criteria specified in 310 CMR 40.0311 or 40.0312.
- (7) The notification timelines specified in 310 CMR 40.0332 shall commence at the time that the person required to notify obtains knowledge, or at the time that a person who has knowledge obtains the status of a person required to notify, whichever is later.

40.0333: How to Notify

- (1) Two Hour and Seventy-Two Hour Notifications. Persons described in 310 CMR 40.0331(1) shall:
 - (a) notify the Department of a release or threat of release specified in 310 CMR 40.0311 through 40.0314, by calling a telephone number published by the Department and designated for that purpose and orally providing to the Department the information specified in 310 CMR 40.0334; and
 - (b) within 60 days thereafter, submit a completed Release Notification Form, as described in 310 CMR 40.0371, to the Department office located in the DEP region in which the release or threat of release occurred. Where appropriate, the Release Notification Form may be accompanied by a Permanent or Temporary Solution Statement, as described in 310 CMR 40.1000.
- (2) 120 Day Notifications. Persons described in 310 CMR 40.0331(1) shall notify the Department of a release specified in 310 CMR 40.0315 by submitting a completed Release Notification Form, as described in 310 CMR 40.0371, to the Department office located in the DEP region in which the release occurred. Where appropriate, the Release Notification Form may be accompanied by a Permanent or Temporary Solution Statement, as described in 310 CMR 40.1000.

40.0334: Content of the Notification

Oral notification to the Department pursuant to 310 CMR 40.0333(1)(a) shall consist of the following information to the extent known to the person responsible for providing the notification:

- (a) the name and telephone number of the caller;
- (b) the location of the release or threat of release, including, where applicable:
 1. the address [street name and number, city or town, and zip code]; and
 2. a narrative description of the location (*e.g.*, location aid such as mile marker, business type/name);
- (c) the date and time the release occurred;
- (d) the set(s) of notification criteria that is the basis for notification;

40.0334: continued

- (e) the name of the oil and/or hazardous material(s) released or of which there is a threat of release;
- (f) the approximate quantity of the oil and/or hazardous material(s) which has been released or of which there is a threat of release;
- (g) the source of the release or threat of release;
- (h) a brief description of the release or threat of release;
- (i) the name and telephone number of the owner/operator of the site or vessel where the release has occurred or at which there is a threat of release;
- (j) the name and telephone number of a contact person at the site or vessel where the release has occurred or at which there is a threat of release;
- (k) a description of Immediate Response Actions taken or proposed to be taken in response to the release or threat of release, as specified in 310 CMR 40.0420;
- (l) the names of other federal, state or local government agencies that have been notified of and/or have responded to the release or threat of release; and
- (m) any other information, including without limitation, potential environmental impacts, that is relevant to assessing the degree of hazard posed by the release or threat of release.

40.0335: Retracting a Notification

- (1) A notification of a release or threat of release of oil and/or hazardous material made by a person described in 310 CMR 40.0331(1) may be retracted in those cases where additional information obtained subsequent to such notification substantiates that:
 - (a) in the case of a reported release, no release actually occurred;
 - (b) in the case of a reported threat of release, conditions posing a threat of release did not actually exist; or
 - (c) the subject release or threat of release did not meet one or more of the sets of notification criteria specified in 310 CMR 40.0300. Retractions of this nature shall only be made by the person described at 310 CMR 40.0331(1) who originally provided notification to the Department of such release or threat of release, or, in cases where notification was made on behalf of a corporate entity, by another authorized employee or agent of that corporation.
- (2) All retractions pursuant to 310 CMR 40.0335 shall be in writing and shall include, at a minimum, the following:
 - (a) the address of the location at which the release or threat of release was initially reported;
 - (b) the Release Tracking Number assigned by the Department for the reported release or threat of release;
 - (c) an explanation of the events and site conditions that resulted in the original notification;
 - (d) a summation of facts, data, and/or other relevant information that demonstrates that the release did not actually occur or the conditions posing the threat of release did not actually exist, or that the release or threat of release did not meet one or more sets or reporting criteria; and
 - (e) the signature of the person retracting the notification, attesting to the accuracy and completeness of the information contained in the retraction submittal, as specified at 310 CMR 40.0009.
- (3) All retractions pursuant to 310 CMR 40.0335 must be received by the Department no later than 60 days after the person providing the retraction first notified the Department of the subject release or threat of release.
- (4) All retractions pursuant to 310 CMR 40.0335 shall be submitted to the Department using a transmittal form established by the Department for such purposes.
- (5) Submission of a notification retraction in conformance with the provisions of 310 CMR 40.0335 shall terminate all future response action requirements and submittals that would otherwise be necessitated by the reporting of said release or threat of release, unless written notice to the contrary is provided by the Department within 21 days of the Department's receipt of such retraction.

40.0335: continued

- (6) Nothing in 310 CMR 40.0335 shall limit the Department's authority to initiate, oversee, or order the performance of any response action deemed necessary by the Department to protect health, safety, public welfare, or the environment.

40.0336: Notification Requirements for Persons that Receive a Notice of Responsibility

- (1) Except as provided in 310 CMR 40.0336(2), persons who have not previously notified the Department of a release or threat of release in accordance with 310 CMR 40.0300, and who receive a Notice of Responsibility from the Department requiring submittal of a Release Notification Form for a release or threat of release, shall submit such Release Notification Form to the appropriate Department Regional Office within 60 days of receipt of such Notice of Responsibility.
- (2) Within 60 days of receipt of a Notice of Responsibility pursuant to 310 CMR 40.0336(1), the recipient shall provide the Department with a written notice and relevant documentation that supports the recipient's belief that any of the following conditions are true:
- (a) the recipient is not a person described at 310 CMR 40.0331(1);
 - (b) a release of oil or hazardous material did not actually occur;
 - (c) conditions posing a threat or release did not actually occur; or
 - (d) a release or threat of release which did occur did not meet one or more sets of notification criteria set forth in 310 CMR 40.0300.

40.0340: Identification of Oil and Hazardous Material

40.0341: Purpose and Scope

310 CMR 40.0340 through 40.0347, cited collectively as 40.0340:

- (1) identify and otherwise describe those oils and hazardous materials which are subject to 310 CMR 40.0000;
- (2) set forth the criteria used by the Department to list certain oils and hazardous materials at 310 CMR 40.1600 and to identify the characteristics of unlisted hazardous materials as set forth in 310 CMR 40.0347; and
- (3) set forth the procedures for adding and deleting oil or hazardous material to or from 310 CMR 40.1600.

40.0342: Methods of Identification of Oil and Hazardous Material

- (1) The Department employs three methods to identify or otherwise describe those oils and hazardous materials which are subject to M.G.L. c. 21E and 310 CMR 40.0000. These methods are:
- (a) identification of those substances which meet the definitions of oil or hazardous material set forth in 310 CMR 40.0006;
 - (b) listing of specific oils and hazardous materials; and
 - (c) identification of the characteristics of a material which make it hazardous.

40.0342: continued

- (2) Accordingly, a substance is an oil or hazardous material if:
 - (a) the substance meets any of the definitions of oil or hazardous material set forth in 310 CMR 40.0006;
 - (b) the substance is listed at 310 CMR 40.1600; or
 - (c) the substance exhibits any of the characteristics of a hazardous material identified in 310 CMR 40.0347(1) through (5).

40.0343: Criteria for Listing Oil and Hazardous Material

In determining whether to list a substance as an oil or hazardous material, the Department shall consider whether or not the substance meets the statutory definition of oil or hazardous material. This determination by the Department shall include, but not be limited to, a consideration of the following factors:

- (1) whether or not other state or federal agencies with expertise in the regulation and management of such substances have identified or characterized that substance as hazardous to health, safety, public welfare, or to the environment;
- (2) the extent to which the substance exhibits the characteristics of acute toxicity, chronic toxicity, carcinogenicity, mutagenicity, ignitability, corrosivity, reactivity, infectivity or radioactivity; and
- (3) any substantial and relevant scientific data submitted by any person in support of adding any substance to or deleting any substance from 310 CMR 40.1600.

40.0344: Adding and Deleting Substances to or from the Massachusetts Oil and Hazardous Material List

- (1) The Department shall review the Massachusetts Oil and Hazardous Material List, which appears at 310 CMR 40.1600, at least once every five years for the purposes of adding or deleting oil and/or hazardous material.
- (2) Substances may be added to or deleted from 310 CMR 40.1600 at any time in accordance with the following procedures:
 - (a) The Department may, in accordance with the procedures set forth in M.G.L. c. 30A and other applicable laws for adopting, amending or repealing regulations:
 - 1. add substances to 310 CMR 40.1600 that meet any of the criteria set forth in 310 CMR 40.0343; or
 - 2. delete substances from 310 CMR 40.1600 that do not meet the criteria set forth in 310 CMR 40.0343.
 - (b) Any person may petition the Commissioner to add a substance to or delete a substance from 310 CMR 40.1600. Any such petition shall include scientific evidence that a material does or does not meet the criteria set forth in 310 CMR 40.0343.
- (3) Any substance that is added to or deleted from either the CERCLA List of Hazardous Substances set out at 40 CFR Part 302.4 or the List of Extremely Hazardous Substances set out at 40 CFR Part 355, Appendix A after the date of promulgation of 310 CMR 40.0300 shall be evaluated by the Department pursuant to the criteria set forth in 310 CMR 40.0343 to determine if that substance should be added to or deleted from 310 CMR 40.1600.

40.0345: The Massachusetts Oil and Hazardous Material List

The oils and hazardous materials listed at 310 CMR 40.1600 are subject to the requirements of 310 CMR 40.0000 unless specifically excluded from regulation thereunder. The Reportable Quantities and Reportable Concentrations which appear beside listed oils and hazardous materials represent those levels which, upon their release or threat of release, invoke the notification requirements of 310 CMR 40.0300.

40.0346: Criteria for Determining the Characteristics of Hazardous Material

In determining whether a substance should be identified as a hazardous material by characteristic, the Department shall first determine that the characteristic can be either:

- (1) measured by an available standardized test method that is within the capability of independent laboratories that are available to the public; or
- (2) reasonably detected by persons handling hazardous material through their knowledge of those materials.

40.0347: Characteristics of Hazardous Material

310 CMR 40.0347 describes the characteristics of materials that are hazardous materials but that may not be listed at 310 CMR 40.1600. Any material that exhibits one or more of the following characteristics is subject to 310 CMR 40.0000, unless it is specifically excluded from regulation thereunder.

(1) Ignitability:

(a) A substance is a hazardous material if a representative sample exhibits any of the following properties:

1. it is a liquid and has a flash point of less than 60EC [approximately 140EF]. However, an aqueous solution of ethyl alcohol which contains less than 24% alcohol by volume is not considered ignitable under 310 CMR 40.0000;
2. it is not a liquid and is capable under standard temperature and pressure of catching fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard;
3. it is a compressed gas and ignitable; or
4. it is an oxidizer;

(b) The flash point of liquids shall be determined by any of the following methods:

1. a Pensky-Martens Closed Cup Tester, using the test method specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods";
2. a Setaflash Closed Cup Tester, using the test method specified in 310 CMR 30.152(1)(a); or
3. an equivalent test method approved by the Department;

(c) Compressed gas shall be characterized as ignitable if any of the following occurs when the gas is subjected to any of the following tests:

1. either a mixture of 13% or less (by volume) with air forms a flammable mixture or the flammable range is wider than 12% regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure using sampling methods and test procedures acceptable to the U.S. Bureau of Explosives;
2. using the Flame Projection Apparatus of the U.S. Bureau of Explosives, the flame projects more than 18 inches beyond the ignition source with the valve opened fully, or the flame flashes back and burns at the valve with any degree of valve opening;
3. using the Open Drum Apparatus of the U.S. Bureau of Explosives, there is any significant propagation of flame away from the ignition source; or
4. using the Closed Drum Apparatus of the U.S. Bureau of Explosives, there is any explosion of the vapor-air mixture in the drum.

(2) Corrosivity:

(a) A material is a hazardous material if a representative sample exhibits any of the following properties:

1. it is aqueous and has a pH equal to or less than 2.0 or equal to or greater than 12.5;
2. it is a liquid and corrodes steel (Type SAE 1020) at a rate greater than 6.35 mm per year at a test temperature of 55EC; or
3. it is a liquid or solid that causes visible destruction or irreversible alterations in mammalian skin tissue at the site of contact.

(b) pH shall be determined by a pH meter using either method 5.2 in the "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" or by an equivalent test method approved by the Department.

40.0347: continued

(c) The rate of corrosion of steel shall be determined by the test method specified by the National Association of Corrosion Engineers, standard TM-01-60, as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" or by an equivalent test method approved by the Administrator of EPA or by the Department.

(3) Reactivity. A material is a hazardous material if a representative sample exhibits any of the following properties:

- (a) it is normally unstable and readily undergoes violent changes without detonating;
- (b) it reacts violently with water;
- (c) it forms potentially explosive mixtures with water;
- (d) when mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to health, safety, public welfare, or the environment;
- (e) it is a cyanide or sulfide-bearing material which, when exposed to a pH of between 2.0 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to health, safety, public welfare, or the environment;
- (f) it is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;
- (g) it is readily capable of detonation or explosive decomposition or reaction at a standard temperature and pressure; or
- (h) it is a forbidden explosive, a Class A or Class B explosive, as defined in 49 CFR §§ 173.50, 173.53 and 173.88, respectively.

(4) Toxicity. A material is a hazardous material if it exhibits the characteristic of toxicity described at 310 CMR 30.125: *Toxicity Characteristic (TC)*, unless specifically excluded.

(5) Infectious Material. Infectious materials are those materials, that, because of their infectious characteristics may:

- (a) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
- (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed. Infectious materials include but are not limited to those infectious wastes described in 105 CMR 130.360: *Medical Waste Disposal*. Infectious materials are hazardous materials subject to 310 CMR 40.0000, unless specifically excluded from regulation thereunder.

40.0350: Reportable Quantities for Oil and Hazardous Material

(1) The Reportable Quantities for the following substances are established in 310 CMR 40.0351 and 40.0352:

- (a) oils and hazardous materials that are listed at 310 CMR 40.1600; and
- (b) hazardous materials that exhibit one or more of the characteristics set forth in 310 CMR 40.0347(1) through (5).

(2) All releases into the environment of the same oil or hazardous material from a single facility in a 24 hour period shall be aggregated to determine if a Reportable Quantity for the respective oil or hazardous material has been reached or exceeded.

40.0351: Reportable Quantities for Oil

Reportable Quantities for oils appear at 310 CMR 40.1600.

40.0352: Reportable Quantities for Hazardous Material

(1) Listed Hazardous Material:

- (a) Reportable Quantities for listed hazardous material appear at 310 CMR 40.1600; and
- (b) the applicable Reportable Quantity for a hazardous material that is listed at 310 CMR 40.1600 and that also exhibits one or more of the characteristics described at 310 CMR 40.0347(1) through (5) shall be the Reportable Quantity listed at 310 CMR 40.1600 for that particular hazardous material.

40.0352: continued

(2) Unlisted Hazardous Materials Identified by Characteristic. The Reportable Quantity for hazardous materials that are not listed at 310 CMR 40.1600 but that exhibit one or more of the characteristics of ignitability, corrosivity or reactivity described at 310 CMR 40.0347(1) through 40.0347(3) or that are infectious materials as described in 310 CMR 40.0347(5) is ten pounds.

(3) Unlisted Hazardous Materials which are Hazardous Material Because They Exhibit the Characteristic of Toxicity:

(a) The Reportable Quantity for unlisted hazardous materials that exhibit the characteristic of toxicity under the provisions of 310 CMR 30.125: *Toxicity Characteristic (TC)* shall be the Reportable Quantity listed at 310 CMR 40.1600 for the hazardous material on which the characteristic of toxicity is based. The Reportable Quantity applies to the entire amount of the unlisted hazardous material and not merely to the listed component hazardous material. If an unlisted hazardous material exhibits the characteristic of toxicity on the basis of more than one of its component hazardous materials, the Reportable Quantity for the entire amount of the unlisted hazardous material shall be the Reportable Quantity for that component hazardous material which has the lowest Reportable Quantity in 310 CMR 40.1600.

(b) If an unlisted hazardous material exhibits the characteristic of toxicity, as described in 310 CMR 30.125, and one or more of the other characteristics described in 310 CMR 40.0347(1) through (3), or in 310 CMR 40.0347(5), the Reportable Quantity for the entire amount of the unlisted hazardous material shall be the lowest of the applicable Reportable Quantities.

(4) Mixtures or solutions:

(a) When a mixture or solution contains one or more component materials that are hazardous materials which appear at 310 CMR 40.1600 or that exhibit one or more of the characteristics of ignitability, corrosivity, or reactivity described at 310 CMR 40.0347(1) through (3), releases or threats of release to the environment of the mixture shall be reported to the Department under 310 CMR 40.0311 through 40.0312, when any of the following conditions exist:

1. the concentrations of the component hazardous materials are known and the quantity of any of the component hazardous materials released or threatening to be released is equal to or greater than the Reportable Quantities for those component hazardous materials;
2. the mixture or solution contains at least two component hazardous materials, the concentrations of the component hazardous materials are known and the quantity of any of the component hazardous materials released or threatened to be released does not exceed their respective Reportable Quantity but the total quantity of the hazardous material in the mixture or solution released or threatened to be released is equal to or greater than 50 pounds; or
3. the concentrations of the component hazardous materials are not known, and the total quantity of the mixture or solution released or threatened to be released is equal to or greater than the Reportable Quantity for that component hazardous material which has the lowest Reportable Quantity in 310 CMR 40.1600.

(b) The Reportable Quantity for mixtures which are hazardous material because they exhibit the characteristic of toxicity, as described in 310 CMR 30.125: *Toxicity Characteristic (TC)*, shall be determined according to 310 CMR 40.0352(3).

(c) The Reportable Quantity provisions of 310 CMR 40.0352(4) do not apply to soils, sediments, residuals, surface waters and groundwaters that are being managed otherwise in compliance with all federal, state and local laws, regulations, and ordinances.

(5) Materials Containing Polychlorinated Biphenyls:

(a) Releases or threats of release to the environment of materials that contain polychlorinated biphenyls shall be reported to the Department pursuant to 310 CMR 40.0300, if:

1. the concentration of polychlorinated biphenyls in a material is either unknown or known to be less than 500 ppm, and the release or threat of release of such material is equal to or greater than ten gallons; or
2. the concentration of polychlorinated biphenyls in a material is known or likely to be equal to or greater than 500 ppm, and the release or threat of release of such material is equal to or greater than one gallon.

40.0352: continued

- (b) The Reportable Quantity provisions of 310 CMR 40.0352(5) do not apply to soils, sediments, residuals, surface waters and groundwaters that are being managed otherwise in compliance with all federal, state and local laws, regulations, and ordinances.

40.0360: Reportable Concentrations for Oil and Hazardous Material

- (1) A release indicated by the measurement of oil and/or hazardous material in soil and/or groundwater requires notification to the Department under the provisions of 310 CMR 40.0315 if the measured concentration of one or more listed substance in 310 CMR 40.1600 in any soil or groundwater sample is equal to or greater than the media and category-specific Reportable Concentration value listed at 310 CMR 40.1600 in effect on the date of the sample analysis.
- (2) Except for gasoline, kerosene, and aviation fuel, the Reportable Concentration for the oils listed at 310 CMR 40.1600 shall be the Reportable Concentration established in 310 CMR 40.1600 for Total Petroleum Hydrocarbons (TPH) or the Reportable Concentrations established in 310 CMR 40.1600 for the Aliphatic Hydrocarbon Fractions and/or Aromatic Hydrocarbon Fractions which comprise these products. Notification shall not be required for sites solely on the basis of a measurement of TPH equal to or greater than an applicable Reportable Concentration if data exists demonstrating that concentrations of the Aliphatic and Aromatic Hydrocarbon Fractions comprising the TPH are less than the applicable Reportable Concentrations established in 310 CMR 40.1600.
- (3) The Reportable Concentration for gasoline, kerosene, and aviation fuel shall be the Reportable Concentrations established in 310 CMR 40.1600 for the Aliphatic and Aromatic Hydrocarbon Fractions which comprise these products.
- (4) The Reportable Concentration for Chromium shall be the Reportable Concentration established in 310 CMR 40.1600 for Total Chromium or the Reportable Concentrations established in 310 CMR 40.1600 for the specific species of chromium. Notification shall not be required for sites solely on the basis of a measurement of Total (unspeciated) Chromium equal to or greater than the Reportable Concentration for Total Chromium if data exists demonstrating that the concentrations of Hexavalent Chromium (Cr VI) and Trivalent Chromium (Cr III) are both less than their applicable Reportable Concentrations established in 310 CMR 40.1600.
- (5) The Reportable Concentration values for the hazardous materials listed at 310 CMR 40.1600, including hazardous materials that may be components of oil or waste oil, shall be compared to concentrations of hazardous material in soil or groundwater that have been measured by the analytical procedures detailed in EPA Publication SW-846, *Test Methods for Evaluating Solid Waste*, the Department's Compendium of Analytical Methods or any other appropriate analytical procedure, as described in 310 CMR 40.0017.
- (6) The techniques utilized for obtaining soil and groundwater samples for comparison to the Reportable Concentration values listed at 310 CMR 40.1600 shall be in conformance with generally accepted practices and procedures, consistent with the Response Action Performance Standard described in 310 CMR 40.0191, and shall not involve measures or steps that are undertaken to cause or promote the dilution of analyte values for the sole purpose of avoiding reporting obligations imposed in 310 CMR 40.0315.
- (7) Persons notifying the Department of a release under the provisions of 310 CMR 40.0315 and 40.0360 through 40.0369 shall specify whether the measured concentration of one or more of the listed substances in 310 CMR 40.1600 constitutes a release of oil, hazardous material, or both oil and hazardous material. Such a determination shall be based upon:
- (a) factual evidence relating to the source and mechanism of the release;
 - (b) factual evidence relating to the storage, use and disposal of oil and hazardous material at the site of the release; and/or
 - (c) analytical characterization of the release.

40.0361: Reportable Concentrations of Oil and Hazardous Material in Soil

(1) For the purpose of determining whether a notification obligation exists under 310 CMR 40.0315, measured concentrations of any oil or hazardous material listed at 310 CMR 40.1600 shall be compared to the Reportable Concentration value in the reporting category that best characterizes the current use of the site under evaluation, as described below:

(a) Reporting Category RCS-1. Reporting category RCS-1 shall be applied to all soil samples obtained:

1. at or within 500 feet of a residential dwelling, a residentially-zoned property, school, playground, recreational area or park; or
2. within the geographic boundaries of a groundwater resource area categorized as RCGW-1 in 310 CMR 40.0362(1)(a).

(b) Reporting Category RCS-2. Reporting category RCS-2 shall be applied to all soil samples that are not obtained from category RCS-1 areas.

(2) Reporting category RCS-1 shall be selected whenever and wherever reasonable doubts exist over the selection of the appropriate soil Reportable Concentration category.

40.0362: Reportable Concentrations of Oil and Hazardous Material in Groundwater

(1) For the purpose of determining whether a notification obligation exists under 310 CMR 40.0315, measured dissolved concentrations of any oil or hazardous material listed at 310 CMR 40.1600 shall be compared to the Reportable Concentration value in the reporting category that best characterizes the site under evaluation, as described below:

(a) Reporting Category RCGW-1. Reporting category RCGW-1 shall be applied to all groundwater samples obtained:

1. within a Current Drinking Water Source Area; or
2. within a Potential Drinking Water Source Area.

(b) Reporting Category RCGW-2. Reporting category RCGW-2 shall be applied to all groundwater samples that are not obtained from category RCGW-1 areas.

(2) Reporting category RCGW-1 shall be selected whenever and wherever reasonable doubts exist over the selection of the appropriate groundwater Reportable Concentration category.

40.0370: Requirements for Releases of Oil and/or Hazardous Material That Do Not Require Notification

(1) Response actions shall be undertaken for releases or threats of release of oil and/or hazardous material that do not require notification under 310 CMR 40.0300 if the releases or threats of release pose a significant risk to health, safety, public welfare, or the environment, as described in 310 CMR 40.0900.

(2) Persons undertaking response actions for releases or threats of release of oil and/or hazardous material that do not require notification under 310 CMR 40.0300, unless otherwise notified by the Department, are not subject to the submittal requirements, approvals, or fees specified in 310 CMR 40.0000. All such response actions shall conform to all applicable federal, state or local laws, regulations, or ordinances.

40.0371: Release Notification Form

(1) Written notification of releases and threats of release required under 310 CMR 40.0333 shall be submitted to the Department on a form established by the Department for such purposes and shall include, without limitation, the following:

- (a) the location and address where the release or threat of release occurred;
1. the street number, city or town, and zip code, where applicable; and
 2. the location coordinates;

(b) the time and date when the release or threat of release occurred;

(c) the time(s) and date(s) when the person(s) required to provide the notification to the Department pursuant to 310 CMR 40.0331 obtained knowledge that the release or threat of release met one or more sets of notification criteria established in 310 CMR 40.0311 through 40.0315;

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- (d) the time(s) and date(s) when oral notification of the release or threat of release was made to the Department, if applicable;
- (e) the set(s) of notification criteria met, as specified at 310 CMR 40.0311 through 40.0315;
- (f) the names and amounts of oil and/or hazardous material released or threatened to be released;
- (g) the names and mailing addresses of the owners of all properties impacted by the release or threat of release;
- (h) the name(s) and address(es) of the person(s) providing the notification of the release or threat of release;
- (i) the affiliation of the person(s) making the notification to the site of the release or threat of release, as described in 310 CMR 40.0331;
- (j) a signed and dated certification statement from the person(s) reporting the release or threat of release attesting to the truth and accuracy of the information provided, as specified at 310 CMR 40.0009; and
- (k) such other information as the Department may from time to time determine is necessary and useful in the fulfillment of its statutory obligations under M.G.L. c. 21E and 310 CMR 40.0300.

(2) Persons required to notify of releases or threats of release to the Department under 310 CMR 40.0300 shall make reasonable efforts to obtain and preserve the information required in the Release Notification Form described in 310 CMR 40.0371(1), in order to furnish same to the Department.

(3) Persons providing notification of a release(s) or threat(s) of release(s) shall also provide a copy of the Release Notification Form to the Chief Municipal Officer and the Board of Health in accordance with 310 CMR 40.1403(3)(h).

SUBPART D: PRELIMINARY RESPONSE ACTIONS
AND RISK REDUCTION MEASURES

40.0400: Preliminary Response Actions and Risk Reduction Measures

310 CMR 40.0401 through 40.0499, cited collectively as 310 CMR 40.0400, set forth requirements and procedures for Preliminary Response Actions and risk reduction measures.

40.0401: Purpose and Scope

The purpose of 310 CMR 40.0400 is to describe the nature and extent of Preliminary Response Actions that are undertaken at a site or vessel following a release or the discovery of a release or a threat of release of oil and/or hazardous material, and to prescribe standards and procedures for conducting Immediate Response Actions, Release Abatement Measures, and Utility-related Abatement Measures, whether they are conducted as part of a Preliminary Response Action or at any other time.

40.0402: Applicability

The provisions of 310 CMR 40.0400 apply to releases and threats of release of oil and/or hazardous material that require reporting to the Department under the provisions of 310 CMR 40.0300. No provision of 310 CMR 40.0400 shall limit the authority of the Department to initiate, oversee or order the performance of any response action deemed necessary by the Department to protect health, safety, public welfare or the environment.

40.0403: Responses to Releases and Threats of Release

(1) Response actions shall be taken by RPs, and may be taken by PRPs and Other Persons, to assess and, where necessary, remediate all releases and threats of release of oil and/or hazardous material to the environment.

40.0403: continued

- (2) The nature, extent and timing of response actions shall be dependent upon the type(s) and amount(s) of oil and/or hazardous material released or threatening to be released, site conditions, and the proximity and sensitivity of human and environmental receptors.
- (3) Preliminary Response Actions, as described in 310 CMR 40.0405, shall be conducted within the one year period following the earliest date specified in 310 CMR 40.0404(3). Preliminary Response Actions may be sufficient for complete evaluation and/or remediation of localized or uncomplicated releases and threats of release at some sites, and shall consist of:
 - (a) Initial Site Investigation Activities, as described in 310 CMR 40.0405(1), up to and including those activities required for preparation of a Phase I Report, if necessary, as described in 310 CMR 40.0480; and
 - (b) where required, one or more Immediate Response Actions, as described in 310 CMR 40.0410, or, where appropriate, one or more Release Abatement Measures, as described in 310 CMR 40.0440.
- (4) Comprehensive Response Actions, as described in 310 CMR 40.0800, shall be undertaken whenever a Permanent Solution, as described in 310 CMR 40.1000, is not achieved at a site based upon Preliminary Response Actions.
- (5) A Permanent Solution Statement, as described in 310 CMR 40.1000, shall be submitted to the Department at the conclusion of response actions conducted at a site pursuant to 310 CMR 40.0000. A Permanent Solution Statement may be submitted for one or more releases or threats of release at a site, disposal site, or portion of a disposal site.

40.0404: Timing of Response Actions

- (1) RPs and any other persons conducting response actions shall initiate, implement, and complete those response actions described in 310 CMR 40.0400 within the time frames specified in 310 CMR 40.0400 and/or any Interim Deadlines specified by the Department pursuant to 310 CMR 40.0167.
- (2) RPs and any other persons conducting response actions shall submit all required plans, status reports, completion reports, and other required response action documentation described in 310 CMR 40.0400 within the time frames specified in 310 CMR 40.0400 and/or any Interim Deadline specified by the Department pursuant to 310 CMR 40.0167.
- (3) Except for notifications retracted pursuant to the provisions of 310 CMR 40.0335, a Permanent Solution Statement or Tier Classification Submittal shall be received by the Department within one year of the earliest following dates:
 - (a) the date that oral notification is received by the Department from any person listed at 310 CMR 40.0331 of a release or threat of release that requires notification pursuant to the "two Hour" or "72 Hour" notification provisions of 310 CMR 40.0311 through 40.0314;
 - (b) the date that written notification is received by the Department from any person listed at 310 CMR 40.0331 of a release that requires notification pursuant to the "120 Day" notification provisions of 310 CMR 40.0315; or
 - (c) the date that the Department issues a Notice of Responsibility to any person listed at 310 CMR 40.0331 specifying that they are an RP or PRP for a release or threat of release that requires a response action pursuant to 310 CMR 40.0400.
- (4) Remedial actions shall not be undertaken or continued at any site by any person until that person provides notification to the Department of their knowledge of any releases or threats of release that meet one or more sets of notification criteria specified in 310 CMR 40.0300, except for:
 - (a) Limited Removal Actions undertaken in compliance with the provisions of 310 CMR 40.0318;
 - (b) time-critical Immediate Response Actions undertaken to address a release or threat of release of oil and/or hazardous material pursuant to the provisions of 310 CMR 40.0332 and 310 CMR 40.0421;

40.0404: continued

- (c) the limited excavation of contaminated soil associated with the closure of an Underground Storage Tank system, as specified at 310 CMR 40.0421(3); or
- (d) time-critical Utility-related Abatement Measures undertaken to prevent or abate an immediate and substantial danger to public safety, as specified in 310 CMR 40.0462(3).

(5) Releases and/or threats of release that occur at a disposal site after Tier Classification of that disposal site shall not be subject to the one year time frames specified in 310 CMR 40.0404(3), provided that response actions are being conducted at the disposal site in compliance with the provisions of 310 CMR 40.0000, including, where appropriate, the submission of all necessary Immediate Response Action Plans, Status Reports, and Completion Statements.

40.0405: Overview of Preliminary Response Actions(1) Initial Site Investigation Activities.

(a) Initial Site Investigation Activities shall consist of limited investigative and assessment actions of sufficient scope and level of effort to make and/or guide determinations on required and appropriate response actions at a site. Initial Site Investigation Activities may include, without limitation:

1. evaluation of records relating to the release, threat of release or impacted site;
2. evaluation of underground storage tank testing results;
3. testing and/or retesting of underground storage tanks;
4. evaluation of environmental monitoring data;
5. limited sampling and analysis of soil, sediment, groundwater, surface water, soil gas, indoor air or ambient air; and
6. any other limited investigations, monitoring, surveys, testing or information gathering activities necessary to evaluate releases and threats of release of oil and/or hazardous material, excluding removal and containment actions.

(b) The objective of Initial Site Investigation Activities is to obtain preliminary information and data on a release, a threat of release and/or site in order to:

1. determine the existence, source, nature and approximate extent of the release or threat of release;
2. determine if the release or threat of release poses or could pose an Imminent Hazard, as described in 310 CMR 40.0321;
3. determine if an Immediate Response Action is necessary, as described in 310 CMR 40.0412;
4. determine if a Limited Removal Action is appropriate at the site, as described in 310 CMR 40.0318;
5. determine if a Release Abatement Measure is appropriate at the site, as described in 310 CMR 40.0440;
6. identify persons who are responsible or potentially responsible for the release or threat of release;
7. obtain, assemble and record information and data needed to evaluate the release or threat of release; and
8. determine if a demonstration can readily be made that a condition of No Significant Risk exists or has been achieved at the site, before or after the completion of a Limited Removal Action, Immediate Response Action, or Release Abatement Measure.

(c) The results of Initial Site Investigation Activities shall:

1. be used to support a Permanent Solution Statement at the conclusion of Preliminary Response Actions; or
2. be used as the basis for a Phase I Report, as described in 310 CMR 40.0480, whenever a Permanent Solution Statement is not filed for a site within one year of the initial notification to the Department of a release or threat of release at the site by any person listed at 310 CMR 40.0331.

(d) When used to support a Permanent Solution Statement, the results of Initial Site Investigation Activities shall be reported in a response action report or in a Phase I Report, pursuant to 310 CMR 40.0481, and shall contain all information, data, records and documents necessary for that purpose.

(e) Assessment activities conducted at a site prior to Tier Classification, as described in 310 CMR 40.0500, shall not require approval from the Department.

40.0405: continued

(2) Immediate Response Actions

(a) Immediate Response Actions are assessment and/or remedial actions that shall be undertaken in an expeditious manner to address sudden releases, Imminent Hazards and other time-critical release or site conditions. Immediate Response Actions shall be taken whenever and wherever timely actions are required to assess, eliminate, abate or mitigate adverse or unacceptable release, threat of release and/or site conditions, as set forth in 310 CMR 40.0412.

(b) Except as provided in 310 CMR 40.0420(12), remedial actions conducted as part of an Immediate Response Action require prior approval from the Department.

(3) Release Abatement Measures. Release Abatement Measures are remedial actions that may be voluntarily undertaken by persons conducting response actions at disposal sites. The purposes of Release Abatement Measures are to remediate limited or localized releases, and/or to mitigate the impacts of larger releases until such time as more comprehensive remedial actions can be instituted at the disposal site, in accordance with 310 CMR 40.0800.

40.0406: Possible Outcomes of Preliminary Response Actions

(1) Within the one year time period specified in 310 CMR 40.0404(3), one of the following actions shall be taken by RPs, and may be taken by PRPs or Other Persons:

(a) a Permanent Solution Statement shall be submitted to the Department, as described in 310 CMR 40.1000, indicating that assessment and/or remedial actions taken at the site have resulted in a Permanent Solution; or

(b) a Phase I Report and Tier Classification Submittal shall be submitted to the Department, in accordance with the provisions of 310 CMR 40.0500, indicating that a Comprehensive Response Action will be undertaken at the site.

(2) Permanent Solution Statements submitted to the Department at the conclusion of Preliminary Response Actions, and prior to Tier Classification, shall be accompanied by the Permanent Solution fee specified in 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*, unless the Permanent Solution Statement is received by the Department within 120 days following the earliest date computed pursuant to 310 CMR 40.0404(3).

40.0410: Immediate Response Actions

310 CMR 40.0411 through 40.0429, cited collectively as 310 CMR 40.0410, set forth requirements and procedures for conducting Immediate Response Actions.

40.0411: General Provisions for Immediate Response Actions

(1) Immediate Response Actions shall assess release, threat of release and/or site conditions and, where appropriate, contain, isolate, remove or secure a release or threat of release of oil and/or hazardous material in order to:

(a) abate, prevent or eliminate an Imminent Hazard to health, safety, public welfare or the environment; and/or

(b) respond to other time-critical release, threat of release and/or site conditions.

(2) Any person who performs an Immediate Response Action shall do so in accordance with all applicable requirements and specifications prescribed in 310 CMR 40.0000. Except when specifically exempted by the Department due to the Department's level of involvement in the oversight of the Immediate Response Action, RPs, PRPs and Other Persons conducting Immediate Response Actions shall engage or employ the services of a Licensed Site Professional.

(3) The Department may make a determination that an Immediate Response Action involving assessment, containment and/or removal actions is needed at any site, consistent with the provisions of 310 CMR 40.0412. In such cases, the Department shall inform the RP or PRP of the need for, and scope of, response actions. When informing the RP or PRP would unacceptably delay the conduct of the Immediate Response Action, or when the RP or PRP is unable or unwilling to conduct the required actions, or otherwise fails to act in a timely manner, the Department may undertake the Immediate Response Action.

40.0411: continued

- (4) Immediate Response Actions shall not, to the extent practicable, prevent or impede the implementation of future response actions.
- (5) Immediate Response Actions shall be conducted in compliance with all applicable local, state and federal permitting and approval requirements.
- (6) Health and safety procedures consistent with the provisions of 310 CMR 40.0018 shall be implemented at sites where an Immediate Response Action is being conducted.
- (7) RPs, PRPs and Other Persons undertaking response actions under the provisions of 310 CMR 40.0000 shall continually assess and evaluate release and site conditions in order to determine if an Immediate Response Action is required.
- (8) RPs, PRPs or Other Persons conducting an Immediate Response Action that involves a remedial action(s) to prevent, control, or eliminate an Imminent Hazard or address a Critical Exposure Pathway shall comply with the provisions of 310 CMR 40.1403(11) for notifying Affected Individuals.

40.0412: Sites Where an Immediate Response Action is Required

Immediate Response Actions shall be conducted at the following sites:

- (1) sites or vessels where a release or threat of release of oil and/or hazardous material has occurred which requires notification to the Department under the "Two Hour" notification provisions of 310 CMR 40.0311 or 40.0312;
- (2) sites where a release or threat of release of oil and/or hazardous material has occurred which requires notification to the Department under the "72 Hour" notification provisions of 310 CMR 40.0313 or 40.0314;
- (3) sites where a release of oil and/or hazardous material has resulted in conditions which have been determined to pose an Imminent Hazard pursuant to 310 CMR 40.0950; and
- (4) any other site or vessel where the Department determines that immediate or accelerated response actions are necessary to prevent, eliminate, or minimize damage to health, safety, public welfare or the environment.

40.0414: Scope and Types of Immediate Response Actions

- (1) At a minimum, Immediate Response Actions shall involve the assessment of the release or threat of release and/or site conditions described in 310 CMR 40.0412. The nature and extent of assessment actions taken as an Immediate Response Action shall be commensurate with the type and amount of oil and/or hazardous material released or threatening to be released, site complexity, and the sensitivity of site and surrounding human and environmental receptors, and shall be adequate and sufficient for determining:
 - (a) the degree of hazard posed by the release, threat of release and/or site conditions;
 - (b) whether remedial actions are required at the site prior to the completion of a Phase IV Remedy Implementation Plan, as described in 310 CMR 40.0870; and
 - (c) where appropriate, the nature, extent, and timing of any required removal or containment actions.
- (2) Immediate Response Actions shall be presumed to require the initiation of one or more containment or removal actions. Except as provided in 310 CMR 40.0414(3) through 40.0414(5), the presumption for containment and/or removal actions may be rebutted, however, by the RP, PRP or Other Person conducting response actions, based upon a showing by a preponderance of the evidence that:
 - (a) the release, threat of release and/or site conditions do not present an Imminent Hazard, either at the present time or for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions; and

40.0414: continued

(b) the unmitigated migration of oil and/or hazardous material at the site, at present and for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions, is not likely to:

1. substantially increase the extent, area, or magnitude of environmental contamination;
2. substantially increase the degree or complexity of future remedial actions;
3. substantially increase cleanup costs; or
4. otherwise result in a substantial hazard to health, safety, public welfare or the environment.

(3) Immediate Response Actions shall be presumed to require the elimination and/or mitigation of Critical Exposure Pathways, which are defined in 310 CMR 40.0006. This presumption may be rebutted, however, by the RP, PRP or Other Person conducting response actions, based upon a showing by a preponderance of the evidence that:

- (a) the Critical Exposure Pathway(s) does not present an Imminent Hazard, either at present or for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions;
- (b) it is not feasible to eliminate the Critical Exposure Pathway(s); and
- (c) in cases where it is not feasible to eliminate the Critical Exposure Pathway(s), it is not feasible to mitigate the Critical Exposure Pathway(s).

(4) Immediate Response Actions shall be presumed to require the prevention and/or mitigation of Critical Exposure Pathways, which are defined in 310 CMR 40.0006. This presumption may be rebutted, however, by the RP, PRP or Other Person conducting response actions, based upon a showing by a preponderance of the evidence, that:

- (a) the Critical Exposure Pathway(s) does not present an Imminent Hazard, either at present or for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions;
- (b) it is not feasible to prevent the Critical Exposure Pathway(s); and
- (c) in cases where prevention is not feasible, it is not feasible to mitigate the Critical Exposure Pathway(s).

(5) Immediate Response Actions shall be presumed to require the prevention of impact(s) to public water supplies at sites where such impact is likely to occur within the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions. This presumption may be rebutted, however, by the RP, PRP or Other Person conducting response actions, based upon a showing by a preponderance of the evidence that:

- (a) it is unlikely that the site will present impact(s) to the public water supply, for the time period that is likely to be required for the implementation and/or completion of Comprehensive Response Actions;
- (b) it is not feasible to prevent the impact(s) to the public water supply; and
- (c) in cases where prevention is not feasible, it is not feasible to mitigate the impact(s) to the public water supply.

(6) Immediate Response Actions may include:

- (a) preparation of technical reports or memoranda documenting why accelerated removal or containment actions are or are not required;
- (b) an assessment of whether an Imminent Hazard to health, safety, public welfare or the environment exists at the site;
- (c) collection and assessment of soil, sediment, surface water, groundwater, soil gas, or atmospheric or indoor air samples;
- (d) assessment of the validity of underground storage tank testing results;
- (e) assessment of the need to take timely actions to prevent releases from occurring at a site where a threat of release has been identified;
- (f) installation of fences, warning signs, including, where appropriate, multilingual and symbolic signs, and/or the institution of other security or site control measures;
- (g) installation of drainage controls;
- (h) construction or stabilization of berms, dikes or impoundments;
- (i) temporary covering or capping of contaminated soils or sludges;
- (j) installation of waste or product recovery and groundwater treatment systems or soil vapor extraction systems;

40.0414: continued

- (k) removal of contaminated soils;
- (l) removal of the contents of, or removal of, drums, barrels, tanks or other bulk containers which contain or may contain oil and/or hazardous material;
- (m) temporary evacuation or relocation of residents from the site and/or surrounding area;
- (n) provision of temporary alternative water supplies;
- (o) installation of a sub-slab soil gas depressurization system beneath an occupied structure; or
- (p) any other assessment, containment or removal action consistent with the purpose and scope of an Immediate Response Action or otherwise deemed necessary by the Department.

(7) A permanent cap or Engineered Barrier that is constructed in accordance with the performance standards contained in 310 CMR 40.0996(7) as an Immediate Response Action will not be considered part of a Permanent Solution at a disposal site, unless and until a Phase III is performed pursuant to the provisions of 310 CMR 40.0850 demonstrating the lack of a feasible alternative.

40.0420: Requirements, Approvals, and Time Lines for Conducting Immediate Response Actions

- (1) Immediate Response Actions shall be taken by RPs, and may be taken by PRPs or Other Persons, in response to all releases and threats of release described in 310 CMR 40.0412.
- (2) Immediate Response Actions shall be conducted in compliance with all applicable provisions and time lines specified in 310 CMR 40.0400, and in compliance with any response action requirements deemed necessary by the Department and/or specified by the Department in its approval of Immediate Response Action Plans.
- (3) RPs, PRPs and Other Persons shall communicate to the Department their intentions to conduct Immediate Response Actions which are required pursuant to 310 CMR 40.0412. Such communication shall be provided orally to the Department on the earliest of the following dates:
 - (a) at the time an RP, PRP, or Other Person is providing oral notification to the Department of a "Two Hour" or "72 Hour" release or threat of release described in 310 CMR 40.0311 through 40.0314;
 - (b) at the time a person is orally informed by the Department that they are an RP or PRP for a site at which an Immediate Response Action is required pursuant to 310 CMR 40.0412;
 - (c) within 72 hours of the time a person receives a Notice of Responsibility from the Department indicating that they are an RP or PRP for a site at which an Immediate Response Action is required pursuant to 310 CMR 40.0412; or
 - (d) within an Interim Deadline specified by the Department pursuant to 310 CMR 40.0167.
- (4) When orally communicating to the Department their intentions to conduct an Immediate Response Action, RPs, PRPs or Other Persons shall inform the Department:
 - (a) whether or not the RP, PRP or Other Person intends to conduct an Immediate Response Action in the time period and manner warranted by the release, threat of release and/or site conditions, in compliance with all applicable provisions of 310 CMR 40.0400, and in compliance with any specific response action requirements which have been communicated to them by the Department;
 - (b) whether the Immediate Response Action will involve the implementation of remedial actions; and
 - (c) if remedial actions are proposed, details on the nature and extent of such actions.
- (5) Upon review and consideration of the oral communication provided by the RP, PRP or Other Person, DEP shall orally approve, deny, or conditionally approve:
 - (a) the details of remedial actions proposed at the time of such communication, in cases where the Immediate Response Action will involve removal or containment actions; or
 - (b) a recommendation that remedial actions are not required at the time of such communication, in cases where the Immediate Response Action will involve assessment actions only.

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(6) Except as provided in 310 CMR 40.0421, approval from the Department shall be required prior to the implementation of an Immediate Response Action, or significant modification of a previously approved Immediate Response Action that involves remedial actions. Such approval may be granted orally by the Department in situations where there has been a sudden release of oil and/or hazardous material, where there exists a threat of release of oil and/or hazardous material, and in other cases where written approval would delay the timely implementation of an Immediate Response Action. Where time permits, and in situations where the Department declines to provide oral approval, RPs, PRPs, and Other Persons shall seek approval to conduct Immediate Response Actions by submittal to the Department of an Immediate Response Action Plan pursuant to the provisions of 310 CMR 40.0420(7) and 40.0424.

(7) Except as provided at 310 CMR 40.0420(8), and without regard to whether oral approval was given by the Department to conduct or initiate Immediate Response Actions, RPs and other persons conducting response actions shall submit to the Department an Immediate Response Action Plan, within the earliest of the following time periods:

- (a) within 60 days of providing oral notification to the Department of those "Two Hour" or "72 Hour" releases or threats of release specified in 310 CMR 40.0311 through 40.0314;
- (b) within 60 days of orally communicating to the Department knowledge of a Condition of Substantial Release Migration at a disposal site;
- (c) within 60 days of the date that the Department issues a Notice of Responsibility indicating that they are an RP or PRP for a site at which an Immediate Response Action is required pursuant to 310 CMR 40.0412; or
- (d) within a time period established by the Department as an Interim Deadline in accordance with 310 CMR 40.0167.

(8) Submission to the Department of an Immediate Response Action Plan is not required if an Immediate Response Action Completion Report, as described in 310 CMR 40.0427, or a Permanent Solution Statement, as described in 310 CMR 40.1000, is received by the Department by the due date of the Immediate Response Action Plan.

(9) All written Immediate Response Action Plans submitted to the Department shall be approved, conditionally approved, or denied by the Department in writing within 21 days of receipt. Approval of such plan shall be presumed if the Department does not issue a written approval or denial of said plan within 21 days of receipt. Immediate Response Actions that had previously been orally approved by the Department shall continue during this review period.

(10) In approving an Immediate Response Action Plan, the Department may specify conditions of approval, including, but not limited to:

- (a) the role of the Department in overseeing or conducting various elements of the Immediate Response Action;
- (b) Interim Deadlines for one or more elements of the Immediate Response Action; or
- (c) submittal requirements for one or more elements of the Immediate Response Action.

(11) RPs, PRPs and Other Persons conducting Immediate Response Actions shall do so in conformance with all conditions and deadlines of any oral or written approval granted by the Department pursuant to 310 CMR 40.0420.

(12) Approval from the Department shall not be required to conduct or initiate Immediate Response Actions that consist solely of the construction of a fence and/or the posting of signs, provided the Department is informed of such actions in the next required response action submittal.

(13) Presumptive approval of an Immediate Response Action Plan pursuant to 310 CMR 40.0420(9) means the RP, PRP or Other Person has approval to proceed with Immediate Response Actions in compliance with all applicable provisions of 310 CMR 40.0000. Such presumptive approval shall not be construed as approval by the Department of the scope or adequacy of plans or of the response actions as actually conducted, or as forgiveness of non-compliance with any provision of 310 CMR 40.0000.

40.0421: Immediate Response Actions That Do Not Require Prior Approval From the Department

(1) Except where specifically prohibited in writing by the Department, assessment activities may be conducted at any site without prior notice to or approval from the Department to conduct such activities.

(2) Prior notice to and approval from the Department shall not be required to conduct or initiate remedial actions in those cases where the delay involved in notifying and obtaining approval from the Department would substantially exacerbate release or site conditions or endanger health, safety, public welfare or the environment. Immediate Response Actions conducted or initiated under such circumstances may include, without limitation, containment and/or removal actions that are undertaken:

- (a) immediately after a sudden release of oil and/or hazardous material;
- (b) immediately after the discovery of a release to prevent, abate or eliminate an Imminent Hazard; or
- (c) immediately after the discovery of a threat of release, in order to prevent a release from occurring.

Persons conducting or initiating remedial actions under the provisions of 310 CMR 40.0421(2) shall notify the Department of those remedial actions undertaken and needed to be taken at the site as soon as possible, and not later than 24 hours after commencement thereof.

(3) Prior notice to and approval from the Department shall not be required to excavate and stockpile up to 100 cubic yards (cumulative for the disposal site of concern) of soils contaminated by a release of oil or waste oil at concentrations or quantities that meet one or more of the sets of criteria specified in 310 CMR 40.0313, and resulting from the closure of an Underground Storage Tank, provided:

- (a) site conditions do not pose an Imminent Hazard to human health, safety, public welfare, or the environment;
- (b) contaminated soils are managed in conformance with the provisions of 310 CMR 40.0030;
- (c) notification is provided to the Department within the time frames required by 310 CMR 40.0332, specifying the nature and extent of soil removal activities; and
- (e) appropriate Immediate Response Actions are initiated subsequent to notification, in conformance with all provisions of 310 CMR 40.0420.

40.0424: Immediate Response Action Plans

(1) An Immediate Response Action Plan shall contain the following:

- (a) the name, address, telephone number and relationship to the site of the person assuming responsibility for conducting the Immediate Response Action;
- (b) a description of the release or threat of release, site conditions and surrounding receptors;
- (c) a description of any Immediate Response Actions undertaken to date at the site;
- (d) the reason why an Immediate Response Action is required;
- (e) the objective(s), specific plan(s) and proposed schedule for the Immediate Response Action, including, as appropriate, plans and/or sketches of the site and any proposed investigative and/or remedial installations;
- (f) a statement as to whether Remediation Waste will be excavated, collected, stored, treated or re-used at the site;
- (g) where appropriate, a proposed environmental monitoring plan, for implementation during and/or after the Immediate Response Action;
- (h) a listing of federal, state or local permits that will likely be needed to conduct the Immediate Response Action;
- (i) except as exempted pursuant to 310 CMR 40.0411(2), the seal and signature of the Licensed Site Professional who prepared the Immediate Response Action Plan; and
- (j) such other information as the Department may deem appropriate and necessary, based on site specific conditions, in order to review and evaluate the Immediate Response Action Plan in question.

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(2) An Immediate Response Action Plan shall be updated and modified, if necessary, based upon the acquisition and evaluation of significant new information and data on release, threat of release and/or site conditions. Each significant modification of an Immediate Response Action Plan shall be resubmitted to the Department for review and approval.

(3) Immediate Response Action Plans shall be submitted to the Department using a transmittal form established by the Department for such purposes.

40.0425: Immediate Response Action Status and Remedial Monitoring Reports

(1) Unless otherwise specified in writing by the Department, a person conducting Immediate Response Actions shall submit a written Status Report to the Department 120 days after the date on which that person first communicated to the Department his or her intention to conduct that Immediate Response Action.

(2) Except as provided in 310 CMR 40.0425(5), following submission of the first such Status Report, additional Status Reports shall be submitted to the Department every six months thereafter, until such time as an Immediate Response Action Completion Report is submitted to the Department, as described in 310 CMR 40.0427. Each Status Report shall document Immediate Response Action activities occurring over the period of time since the previously submitted Status Report.

(3) Immediate Response Action Status Reports shall contain, at a minimum, the following information:

- (a) the status of assessment and/or remedial actions;
- (b) any significant new site information or data;
- (c) details of and/or plans for the management of Remediation Waste, Remedial Waste-water and/or Remedial Additives;
- (d) any other information required by the Department in its approval of the Immediate Response Action Plan; and
- (e) an LSP Opinion as to whether the Immediate Response Action is being conducted in conformance with the Immediate Response Action Plan and any conditions of approval established by the Department.

(4) Status Reports shall not be required for sites where an Immediate Response Action Completion Report or a Permanent Solution Statement is received by the Department prior to the date on which the first Status Report is required pursuant to 310 CMR 40.0425(1).

(5) Where Immediate Response Actions are being undertaken solely to eliminate, mitigate, or prevent a Critical Exposure Pathway that does not pose an Imminent Hazard with the use of an Active Exposure Pathway Mitigation Measure, Status Reports shall be submitted to the Department as follows:

- (a) Status Reports shall be submitted at the frequency specified in 310 CMR 40.0425(2) unless and until a Status Report containing the following information is submitted:
 - 1. Results of sampling demonstrating the Active Exposure Pathway Mitigation Measure is effectively maintaining, at a minimum, a condition of No Significant Risk for the Receptors of concern;
 - 2. A listing of the specific system conditions, operating parameters, and/or maintenance necessary for ensuring the ongoing effectiveness of the Active Exposure Pathway Mitigation Measure in maintaining a condition of No Significant Risk for the Receptors of concern;
 - 3. A description of a monitoring program designed to ensure the ongoing effectiveness of the Active Exposure Pathway Mitigation Measure in maintaining a condition of No Significant Risk for the Receptors of concern; and
 - 4. An LSP Opinion supporting a reduced reporting schedule pursuant to 310 CMR 40.0425(5)(b) as being adequate to document the ongoing Immediate Response Actions.
- (b) Once the IRA Status Report outlined in 310 CMR 40.0425(5)(a) has been submitted, the frequency at which IRA Status Reports shall be submitted to the Department may be reduced to annually thereafter, until such time as an IRA Completion Report is submitted to the Department, as outlined in 310 CMR 40.0427.

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(c) Notwithstanding the provisions of 310 CMR 40.0425(5), any person conducting response actions pursuant to this section that rely on an Active Exposure Pathway Mitigation Measure, who has knowledge of the failure of the Measure to effectively maintain a condition of No Significant Risk and/or the need to substantially modify such Measure, shall provide a modified IRA Plan to the Department pursuant to 310 CMR 40.0424(2) within 30 days of obtaining such knowledge. Such IRA Plan shall include plans and a timetable to correct failures and/or to implement modifications.

(d) Notwithstanding any provision to the contrary, the Department may establish Interim Deadlines and alternate schedules for the submission of Status Reports for IRAs addressing Critical Exposure Pathways.

(6) Immediate Response Action Status Reports shall be submitted to the Department using a transmittal form established by the Department for such purposes.

(7) For a disposal site where Active Operation and Maintenance of a remedial action is being conducted as part of an Immediate Response Action, in addition to and/or in conjunction with the submittal of IRA Status Reports, a Remedial Monitoring Report shall be submitted to the Department on a form established by the Department for such purposes at the following frequency:

(a) except as provided in 310 CMR 40.0425(7)(c), when an Immediate Response Action includes Active Operation and Maintenance of a remedial action to address an Imminent Hazard or Condition of Substantial Release Migration, with the first IRA Status Report and monthly thereafter. In such cases where Active Operation and Maintenance of a remedial action is initiated after the submittal of the first IRA Status Report, the initial Remedial Monitoring Report shall be submitted on the monthly anniversary of the submittal of the first IRA Status Report;

(b) except as provided in 310 CMR 40.0425(7)(c), when an Immediate Response Action includes Active Operation and Maintenance of a remedial action to address conditions that do not pose an Imminent Hazard or Condition of Substantial Release Migration, with the first IRA Status Report and every six months thereafter. In such cases where Active Operation and Maintenance of a remedial action is initiated after the submittal of the first IRA Status Report, the initial Remedial Monitoring Report shall be submitted on the next six-month anniversary of the submittal of the first IRA Status Report.

(c) where IRA Status Reports are submitted annually pursuant to 310 CMR 40.0425(5)(b), Remedial Monitoring Reports shall be submitted with the annual IRA Status Reports.

(d) Notwithstanding any provision to the contrary, the Department may establish Interim Deadlines and alternate schedules for the submission of Remedial Monitoring Reports.

40.0426: Imminent Hazard Evaluations

(1) An Imminent Hazard Evaluation shall be performed as part of an Immediate Response Action at sites where a release or threat of release could pose an Imminent Hazard to human health, safety, public welfare, or the environment, as described in 310 CMR 40.0321(2), and may be performed at sites where a release or threat of release is deemed to pose an Imminent Hazard, as described in 310 CMR 40.0321(1).

(2) Unless otherwise specified in writing by the Department, RPs, PRPs and Other Persons conducting Immediate Response Actions at a site where a release or threat of release could pose an Imminent Hazard to human health, as described in 310 CMR 40.0321(2), shall initiate an Imminent Hazard Evaluation within 14 days of obtaining knowledge of such a condition, and shall submit to the Department, within 60 days of obtaining knowledge of such a condition:

(a) an LSP Opinion as to whether an Imminent Hazard to human health actually exists at the site, as described in 310 CMR 40.0950; or

(b) when such an Opinion cannot yet be made, an LSP Opinion:

1. describing the investigative efforts that have been made and remain to be taken in order to determine whether an Imminent Hazard to human health actually exists at the site, as well as a timetable for the remaining activities; or
2. proposing a plan to undertake removal and/or containment actions at the site to address those conditions that could pose an Imminent Hazard to human health.

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(3) Unless otherwise specified in writing by the Department, RPs, PRPs, or Other Persons conducting response actions at sites where a release or threat of release could pose an Imminent Hazard to safety, public welfare, or the environment shall initiate an Imminent Hazard Evaluation within 14 days of obtaining knowledge of such a condition, and shall submit to the Department, within 60 days of obtaining knowledge of such a condition:

- (a) an LSP Opinion as to whether an Imminent Hazard to safety, public welfare, or the environment actually exists at the site; or
- (b) when such an Opinion cannot yet be made, an LSP Opinion:
 - 1. describing the investigative efforts that have been made and remain to be taken in order to determine whether an Imminent Hazard to safety, public welfare, or the environment actually exists at the site, as well as a timetable for the remaining activities; or
 - 2. proposing a plan to undertake removal and/or containment actions at the site to address those conditions that could pose an Imminent Hazard to safety, public welfare, or the environment.

(4) RPs, PRPs and Other Persons conducting Immediate Response Actions at a site where a release or threat of release poses or could pose an Imminent Hazard, as specified in 310 CMR 40.0321 and 40.0950, shall keep the Department informed as to the progress being made in addressing and/or abating the Imminent Hazard, in report submittals made as part of the Immediate Response Action Status Reports, or in accordance with a reporting frequency and procedure established by the Department as part of its approval of the Immediate Response Action Plan.

(5) Imminent Hazard Evaluations shall be submitted to the Department using a transmittal form established by the Department for such purposes.

(6) Active Remedial Systems, Active Exposure Pathway Mitigation Measures, and/or continuing response actions required and/or approved by the Department to address an Imminent Hazard condition at a site shall not be terminated by the RP, PRP, or Other Person conducting Immediate Response Actions until such time as response objectives and/or approval conditions have been met, and until approval to do so has been obtained from the Department. All requests to terminate such actions shall be submitted to the Department using a transmittal form established by the Department for such purposes, and shall contain data, documentation, and technical information sufficient to justify cessation of such actions. Approval to terminate such actions shall be presumed if the Department does not issue a written approval or denial of such a request within 21 days of receipt of the same.

40.0427: Immediate Response Action Completion Reports

(1) An Immediate Response Action shall be considered complete when the release, threat of release and/or site conditions which give rise to the need for that Immediate Response Action, as described in 310 CMR 40.0412, have been assessed and, where necessary, remediated in a manner and to a degree that will ensure, at a minimum:

- (a) the accomplishment of any necessary stabilization of site conditions;
- (b) the elimination or control of any Imminent Hazards to health, safety, public welfare and the environment, without the continued operation and maintenance of Active Remedial Systems or Active Exposure Pathway Mitigation Measures or the incorporation of ongoing response actions to eliminate or control the Imminent Hazard into the Phase IV Remedy Implementation Plan for the disposal site; and
- (c) the completion of time-critical measures addressing the elimination, prevention or mitigation of Critical Exposure Pathway(s) as documented with an LSP Opinion concluding that:
 - 1. the Critical Exposure Pathway(s) have been eliminated using passive measures;
 - 2. a feasibility study, as specified at 310 CMR 40.0414(3) and (4), supports the conclusion that it is not feasible to eliminate, prevent, or mitigate the Critical Exposure Pathway(s);
 - 3. a feasibility study, conducted as part of a Phase III evaluation of Comprehensive Remedial Alternatives as specified in 310 CMR 40.0860, supports the conclusion that it is not feasible to eliminate, prevent, or mitigate the Critical Exposure Pathway(s) as part of the Comprehensive Remedial Alternative; or

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4. mitigation of Critical Exposure Pathway(s) is continuing by incorporation of ongoing response actions to address the Critical Exposure Pathway(s) into the Phase IV Remedy Implementation Plan for the disposal site.
- (2) Except as specified in 310 CMR 40.0427(3), an Immediate Response Action Completion Report shall be submitted to the Department within 60 days of completion of all assessment, containment and/or removal actions conducted as part of the Immediate Response Action.
- (3) An Immediate Response Action Completion Report shall not be required for sites where a Permanent Solution Statement, as described in 310 CMR 40.1000, is submitted to the Department by an RP, PRP, or Other Person within 120 days of first informing the Department of the need to conduct an Immediate Response Action at the site, as specified in 310 CMR 40.0420(3).
- (4) Immediate Response Action Completion Reports shall contain, at a minimum, the following:
 - (a) a description of the release or threat of release, site conditions and surrounding receptors;
 - (b) a description of the work completed, including work undertaken in response to any conditions of approval imposed by the Department, and any work undertaken at the site that was not included in the scope of the Immediate Response Action Plan, where submitted;
 - (c) all investigatory and monitoring data obtained during the implementation of the Immediate Response Action;
 - (d) a succinct statement on the findings and conclusions of the Immediate Response Action;
 - (e) details and documentation on the management of any Remediation Waste, Remedial Wastewater and/or Remedial Additives managed at the site as part of the Immediate Response Action;
 - (f) a description of any ongoing activities related to the Immediate Response Action that will be conducted at the site, including monitoring activities, security measures and the maintenance of fences, caps and other passive systems; and
 - (g) a description of any ongoing activities related to the Immediate Response Action that will be conducted at the site as part of Comprehensive Response Actions.
- (5) Immediate Response Action Completion Reports shall be submitted to the Department appended to a Completion Statement form established by the Department for such purposes. The Completion Statement form shall contain:
 - (a) except as exempted pursuant to 310 CMR 40.0411(2), an LSP Opinion on whether the Immediate Response Action was conducted in accordance with 310 CMR 40.0410, any approval conditions specified by the Department, and, where submitted, the Immediate Response Action Plan(s); and
 - (b) the certification of the submittal required by 310 CMR 40.0009.
- (6) Except as provided in 310 CMR 40.0427(7), an Immediate Response Action shall not be considered complete until all stockpiled/stored Remediation Waste generated as a result of the Immediate Response Action is removed from the site pursuant to the provisions of 310 CMR 40.0030.
- (7) Remediation Waste may be stored, treated, managed, disposed, recycled or reused at a site following the submission to the Department of an Immediate Response Action Completion Report and Completion Statement only if:
 - (a) such actions are conducted in conformance with the provisions of 310 CMR 40.0030; and
 - (b) a Release Abatement Measure Plan pursuant to the provisions of 310 CMR 40.0440 or a Remedy Implementation Plan pursuant to the provisions of 310 CMR 40.0870 is submitted to the Department as an attachment to the Immediate Response Action Completion Statement.
- (8) Unless otherwise directed by the Department, Immediate Response Action Completion Reports shall not require approval from the Department.

40.0428: Public Involvement

(1) Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public Involvement Activities relevant to Immediate Response Actions may include, without limitation, those activities set forth at 310 CMR 40.1403(3)(b), (c), (f), (5) and (9).

(2) If the disposal site where the Immediate Response Action is conducted is a Public Involvement Plan Site, a Public Involvement Plan that is consistent with 310 CMR 40.1405 shall be implemented by the RP, PRP or Other Person conducting response actions at that site.

40.0429: Possible Outcomes of an Immediate Response Action

One or more of the following actions shall be taken by an RP, PRP or Other Person following the completion of an Immediate Response Action:

(1) the filing of a Permanent Solution Statement, in accordance with the provisions of 310 CMR 40.1000;

(2) the initiation of a Release Abatement Measure, in accordance with the provisions of 310 CMR 40.0440; or

(3) the continuation of further Preliminary or Comprehensive Response Actions, in accordance with the provisions of 310 CMR 40.0400 or 40.0800.

40.0440: Release Abatement Measures

310 CMR 40.0441 through 40.0449, cited collectively as 310 CMR 40.0440, set forth requirements and procedures for conducting Release Abatement Measures.

40.0441: General Provisions for Release Abatement Measures

(1) Release Abatement Measures are intended to reduce risks at a disposal site and/or increase the cost-effectiveness of response actions by allowing the implementation of certain accelerated remedial actions to stabilize, treat, control, minimize or eliminate OHM contamination at a disposal site.

(a) a Release Abatement Measure may be implemented:

1. prior to conducting Comprehensive Remedial Actions;
2. in conjunction with Comprehensive Remedial Actions;
3. prior to the achievement of a Permanent Solution; or
4. to perform additional remedial action(s) at a site for which a Permanent Solution Statement has been submitted, in accordance with 310 CMR 40.0400 and 40.1067;

(b) a Release Abatement Measure shall not be conducted at any portion of a disposal site where an Immediate Response Action is required or ongoing, unless otherwise approved by the Department.

(2) Release Abatement Measures shall be limited in scope and complexity, as described in 310 CMR 40.0442, in order to prevent adverse impacts to health, safety, public welfare or the environment that could result from the implementation of complicated or large-scale remedial actions at disposal sites where there has not been adequate assessment, evaluation, planning and/or public involvement.

(3) Any person who conducts a Release Abatement Measure shall do so in accordance with all applicable requirements and specifications prescribed in 310 CMR 40.0000. RPs, PRPs, and Other Persons conducting Release Abatement Measures shall employ or engage a Licensed Site Professional as required by these regulations.

(4) Release Abatement Measures shall comply with all local, state and federal permitting and approval requirements.

(5) Health and safety procedures consistent with the provisions of 310 CMR 40.0018 shall be implemented at all sites where a Release Abatement Measure is being conducted.

40.0442: Scope and Types of Release Abatement Measures

(1) The scope and complexity of Release Abatement Measures shall be commensurate with the amount of information known about, and the degree of risk associated with, release and disposal site conditions. A Release Abatement Measure shall not:

- (a) be implemented without a level of understanding of disposal site conditions and surrounding receptors sufficient to support the actions taken;
- (b) be continued at a disposal site where encountered oil and/or hazardous material, migration pathways, or exposure routes are substantially different from those anticipated;
- (c) be conducted in a manner that is likely to result in the exposure of surrounding human or ecological receptors to levels of oil and/or hazardous material that could pose a significant risk of harm to health, safety, public welfare or the environment, as described in 310 CMR 40.0950;
- (d) prevent or impede the implementation of likely future response actions; or
- (e) be conducted in a manner inconsistent with the Response Action Performance Standard described in 310 CMR 40.0191.

(2) Release Abatement Measures conducted in accordance with the provisions of 310 CMR 40.0442(1) may include, without limitation:

- (a) the excavation and off-site disposal of up to 500 cubic yards (cumulative, for the disposal site in question) of soil contaminated by oil and/or hazardous material at concentrations equal to or greater than applicable Reportable Concentrations, in conformance with 310 CMR 40.0030;
- (b) the excavation and on or off-site treatment, recycling or reuse of up to 1500 cubic yards (cumulative, for the disposal site in question) of soil contaminated by oil and/or hazardous material at concentrations equal to or greater than applicable Reportable Concentrations, in conformance with 310 CMR 40.0030;
- (c) the initiation of passive or active NAPL recovery systems that discharge to a closed container, or groundwater recovery or treatment systems that discharge Remedial Wastewater and/or Remedial Additives in accordance with 310 CMR 40.0040 to a sewer system, POTW, Non-publicly Owned Treatment Works, surface water body, or to the ground surface or subsurface and/or groundwater; or
- (d) the implementation of a soil vapor extraction system and/or groundwater sparging system, with appropriate off-gas treatment and controls, as described in 310 CMR 40.0049.

(3) Notwithstanding 310 CMR 40.0442(1)(d), Release Abatement Measures may include construction of a structure that could prevent or impede the implementation of likely response actions in the future, provided that:

- (a) the following are completed for the area within and adjacent to the footprint of the proposed structure in a manner that achieves the substantive technical standards set forth in 310 CMR 40.0800 and 40.0900:
 - 1. a site assessment;
 - 2. a risk characterization;
 - 3. a feasibility evaluation;
 - 4. if the Exposure Point Concentrations of contaminants under such structure exceed applicable soil Upper Concentration Limits (UCLs) specified in 310 CMR 40.0996(8), the reduction of concentrations to levels at or below UCLs to the extent feasible pursuant to 310 CMR 40.0860(4);
 - 5. the elimination or control of any Source of OHM Contamination as specified in 310 CMR 40.1003(5);
 - 6. the management of NAPL as specified in 310 CMR 40.1003(7)(a); and
 - 7. any other remedial actions deemed necessary to ensure the eventual achievement of a level of No Significant Risk for the entire disposal site; and
- (b) to the extent feasible, the requirements specified at 310 CMR 40.0442(3)(a) are completed prior to the initiation of construction.

(4) A permanent cap or Engineered Barrier, as defined in 310 CMR 40.0996(7), that is constructed as a Release Abatement Measure will not be considered part of a Permanent Solution at a disposal site, unless and until a Phase III performed pursuant to the provisions of 310 CMR 40.0850 demonstrates the lack of a feasible alternative.

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(5) Release Abatement Measures shall not involve the excavation of greater than 1500 cubic yards (cumulative, for the disposal site in question) of soil contaminated by oil and/or hazardous material at concentrations equal to or greater than applicable Reportable Concentrations, unless a statement is provided in the Release Abatement Measure Plan by the RP, PRP, or Other Person conducting response actions certifying that, based upon information and opinions provided by an LSP, such persons have sufficient financial resources to manage excavated materials in the manner and time frames specified at 310 CMR 40.0030.

40.0443: Approvals Required to Conduct Release Abatement Measures

(1) A Release Abatement Measure shall not be conducted at any disposal site until a complete Release Abatement Measure Plan, as described in 310 CMR 40.0444, has been received by the Department. A Release Abatement Measure Plan shall not be considered complete until all information described in 310 CMR 40.0444 is received in the appropriate DEP regional office, accompanied by a certification of payment, in cases where a fee is specified pursuant to 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.

(2) Subsequent to the receipt by the Department of a complete RAM Plan, except as otherwise specified by the Department in writing or as specified at 310 CMR 40.0046(3) for plans that include the Application of Remedial Additives Near Sensitive Receptors, approval shall not be required from the Department to conduct the Release Abatement Measure. Exemption from the need to obtain approval from the Department in these cases shall not relieve RPs, PRPs, or Other Persons of their obligation to submit to the Department all required Release Abatement Measure Plans, Status Reports and Completion Reports.

(3) Any person implementing a Release Abatement Measure shall conform to all proposals and specifications contained in the Release Abatement Measure Plan, and any conditions specified by the Department.

(4) A modified Release Abatement Measure Plan shall be submitted to the Department prior to implementing a modification of a Release Abatement Measure if:

- (a) contaminants or conditions are discovered that significantly increase the degree or change the type of exposure to nearby receptors; or
- (b) a significant change is proposed to on-site treatment processes.

All other modifications may be implemented immediately and shall be documented with the next required response action submittal pursuant to 310 CMR 40.0440.

(5) Remedial actions specified in a Release Abatement Measure Plan shall be initiated by the RP, PRP, or Other Person conducting response actions at a disposal site within one year from the date of the Department's receipt of a complete Release Abatement Measure Plan. Release Abatement Measure Plans not initiated in this manner shall be considered invalid and unapproved.

40.0444: Release Abatement Measure Plans

(1) A Release Abatement Measure Plan shall not be considered complete unless it contains, at a minimum, the following:

- (a) the name, address, telephone number and relationship to the site of the person assuming responsibility for conducting the Release Abatement Measure;
- (b) a description of the release or threat of release, site conditions and surrounding receptors;
- (c) the objective(s), specific plan(s) and proposed implementation schedule for the Release Abatement Measure, including, as appropriate, descriptions, plans and/or sketches of the site, any proposed structures to be constructed or installed in the project area, and any proposed investigative and/or remedial installations;
- (d) a statement as to whether Remediation Waste, Remedial Wastewater and/or Remedial Additives will be excavated, collected, stored, treated, discharged, applied, reused, or otherwise managed at the site;
- (e) where appropriate, a proposed environmental monitoring plan, for implementation during and/or after the Release Abatement Measure;

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- (f) a listing of federal, state and/or local permits likely to be needed to conduct the Release Abatement Measure;
- (g) the seal and signature of the Licensed Site Professional who prepared the Release Abatement Measure Plan;
- (h) the certification required at 310 CMR 40.0442(5), if greater than 1500 cubic yards of Remediation Wastes are to be generated and managed at the disposal site; and
- (i) any other information that the Department, during its review and evaluation of the Release Abatement Measure Plan, determines to be necessary to complete said plan, in view of site specific circumstances and conditions.

(2) All Release Abatement Measure Plans submitted to the Department prior to Tier Classification of the disposal site shall be accompanied by the appropriate fee established in 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*. No fee is required for Release Abatement Measure Plans submitted to the Department after Tier Classification of the disposal site or after submittal of a Permanent Solution Statement for the disposal site.

(3) Release Abatement Measure Plans shall be submitted to the Department using a transmittal form established by the Department for such purposes.

40.0445: Release Abatement Measure Status and Remedial Monitoring Reports

(1) Persons conducting Release Abatement Measures shall submit a Status Report 120 days following receipt by the Department of the initial Release Abatement Measure Plan, and every six months thereafter, until a Release Abatement Measure Completion Report, in accordance with the provisions of 310 CMR 40.0446, has been submitted to the Department. Each Status Report shall document Release Abatement Measure activities occurring over the period of time since the previously submitted Status Report.

(2) Release Abatement Measure Status Reports shall contain, at a minimum, the following information:

- (a) the status of response operations;
- (b) any significant new site information or data;
- (c) details of and/or plans for the management of Remediation Waste, Remedial Waste-water and/or Remedial Additives;
- (d) any other information that the Department during its review and evaluation of a Status Report determines to be necessary to complete said Status Report, in view of site specific circumstances and conditions; and
- (e) an LSP Opinion as to whether the Release Abatement Measure is being conducted in conformance with the Release Abatement Measure Plan and any conditions of approval established by the Department.

(3) Status Reports shall not be required for sites where a Release Abatement Measure Completion Report or a Permanent Solution Statement is received by the Department prior to the date on which the first Status Report is required pursuant to 310 CMR 40.0445(1). In the case of a Release Abatement Measure conducted at a site already subject to a Permanent Solution Statement in accordance with 310 CMR 40.1067, a Release Abatement Measure Status Report shall be required unless a Release Abatement Measure Completion Report or a revised Permanent Solution Statement is received by the Department prior to the date on which the first Status Report is required pursuant to 310 CMR 40.0445(1).

(4) Release Abatement Measure Status Reports shall be submitted to the Department using a transmittal form established by the Department for such purposes.

(5) For a disposal site where Active Operation and Maintenance of a remedial action is being conducted as part of a RAM, a Remedial Monitoring Report shall be submitted to the Department on a form established by the Department for such purposes at a frequency of every six months and concurrently with the submittal of the RAM Status Report. In such cases when the Active Operation and Maintenance of a remedial action is initiated after the submittal of the first RAM Status Report, the Remedial Monitoring Report shall be submitted concurrently with the next RAM Status Report.

40.0446: Release Abatement Measure Completion Report

- (1) A Release Abatement Measure Completion Report shall be submitted to the Department no later than 60 days following the completion of those remedial actions proposed in the Release Abatement Measure Plan and/or approved by the Department pursuant to 310 CMR 40.0443.
- (2) A Release Abatement Measure shall be considered complete when the objectives of the Release Abatement Measure Plan have been met, and when all active and ongoing remedial actions related to the Release Abatement Measure have been terminated.
- (3) Unless otherwise specified in writing by the Department, a Release Abatement Measure Completion Report shall not be required for sites where a Permanent Solution Statement, as described in 310 CMR 40.1000, is submitted to the Department within 120 days following receipt by the Department of the complete initial Release Abatement Measure Plan to conduct the Release Abatement Measure or in the case of a Release Abatement Measure conducted at a site already subject to a Permanent Solution Statement in accordance with 310 CMR 40.1067, a revised Permanent Solution Statement is submitted.
- (4) A Release Abatement Measure Completion Report shall contain, at a minimum, the following:
 - (a) a description of the release or threat of release, site conditions, and surrounding receptors;
 - (b) a description of the Release Abatement Measure completed at the disposal site, including work undertaken in response to any conditions of approval imposed by the Department;
 - (c) all investigatory and monitoring data obtained during the implementation of the Release Abatement Measure;
 - (d) a succinct statement of findings and conclusions resulting from implementation of the Release Abatement Measure, including a statement as to whether the objectives of the Release Abatement Measure have been met;
 - (e) details and documentation on the management of any Remediation Waste, Remedial Wastewater and/or Remedial Additives managed at the site as part of the Release Abatement Measure; and
 - (f) a description of any ongoing activities related to the Release Abatement Measure that will be conducted at the disposal site, including monitoring activities, and the maintenance of fences, caps, and other passive systems.
- (5) Release Abatement Measure Completion Reports shall be submitted to the Department appended to a Completion Statement form established by the Department for such purposes. The Completion Statement form shall contain:
 - (a) an LSP Opinion on whether the Release Abatement Measure was conducted in accordance with 310 CMR 40.0440, any approval conditions specified by the Department, and, where submitted, the Release Abatement Measure Plan; and
 - (b) the certification of the submittal required by 310 CMR 40.0009.
- (6) Except as provided in 310 CMR 40.0446(7), a Release Abatement Measure shall not be considered complete until all stockpiled/stored Remediation Waste generated as a result of the Release Abatement Measure is removed from the site pursuant to the provisions of 310 CMR 40.0030.
- (7) Remediation Waste may be stored, treated, managed, disposed, recycled or reused at a site following the submission to the Department of a Release Abatement Measure Completion Report and Completion Statement only if:
 - (a) such actions are conducted in conformance with the provisions of 310 CMR 40.0030; and
 - (b) a Remedy Implementation Plan pursuant to the provisions of 310 CMR 40.0870 is submitted to the Department as an attachment to the Release Abatement Measure Completion Statement.
- (8) Unless otherwise directed by the Department, Release Abatement Measure Completion Reports are not subject to approval by the Department.

40.0447: Public Involvement

(1) Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public Involvement Activities required for Release Abatement Measures specifically include 310 CMR 40.1403(3)(d), and may include, without limitation, those activities set forth at 40.1403(3)(f).

(2) If the disposal site where the Release Abatement Measure was conducted is a designated Public Involvement Priority site, then a Public Involvement Plan consistent with 310 CMR 40.1405 shall be implemented by the RP, PRP or Other Person conducting response actions at that site.

40.0448: Possible Outcomes of a Release Abatement Measure

One of the following actions shall be taken by an RP, PRP, or Other person following the completion of a Release Abatement Measure:

(1) the filing of a Permanent Solution Statement, in accordance with the provisions of 310 CMR 40.1000; or

(2) the continuation of further Preliminary or Comprehensive Response Actions, in accordance with the provisions of 310 CMR 40.0400 or 40.0800.

40.0460: Utility-related Abatement Measures

310 CMR 40.0461 through 40.0469, cited collectively as 310 CMR 40.0460, set forth requirements and procedures to conduct Utility-related Abatement Measures.

40.0461: General Provisions for Utility-related Abatement Measures

(1) Except as provided in 310 CMR 40.0461(3), Utility-related Abatement Measures may be taken at sites where oil and/or hazardous material is present in the soil or groundwater at levels equal to or greater than an applicable Reportable Concentration value listed at 310 CMR 40.0360 and 40.1600, by:

- (a) persons overseeing or directly responsible for utility construction activities; or
- (b) persons overseeing or directly responsible for site preparation work requested or required by a Public or Private Utility company or Public Authority prior to any utility construction activity.

(2) Except as provided in 310 CMR 40.0461(7), Utility-related Abatement Measures may be taken on public rights of way, utility easements and private property, to respond to and properly manage contamination encountered during the installation, repair, replacement or decommissioning of:

- (a) sanitary sewerage, water, or drainage systems and related appurtenances;
- (b) steam lines;
- (c) natural gas pipelines and related appurtenances; and
- (d) above ground or underground electric, telephone, telecommunication cables or other conduits, and related appurtenances.

(3) Utility-related Abatement Measures shall neither be initiated nor continued at any portion of a disposal site where a "Two Hour" or "72 Hour" release or threat of release has been identified, as described in 310 CMR 40.0311 through 40.0314, until such time as an Immediate Response Action Completion Report has been submitted to the Department.

(4) Except as provided in 310 CMR 40.0462(4), persons conducting Utility-related Abatement Measures shall engage or employ a Licensed Site Professional as required by 310 CMR 40.0000.

(5) Utility-related Abatement Measures:

- (a) shall be limited to only those assessment, containment or removal actions that are necessary for the completion of construction activities;
- (b) shall not prevent or impede the implementation of likely future response actions; and
- (c) shall not include the construction of residential, commercial, or industrial buildings.

40.0461: continued

- (6) Utility-related Abatement Measures shall be undertaken in conformance with all applicable procedures and requirements specified in 310 CMR 40.0460.
- (7) Utility-related Abatement Measures shall not be initiated at sites where the installation of new public utilities are proposed until sufficient evaluation has been made of the nature and extent of encountered and suspected contamination, the scope and expense of necessary mitigative actions, and benefits and limitations of project alternatives.
- (8) The Department may, at its discretion, require, undertake or order the initiation of any assessment or remedial actions deemed necessary at any construction site to prevent, abate or eliminate damage or the likelihood of damage to health, safety, public welfare or the environment.
- (9) Other Persons conducting Utility-related Abatement Measures who are not conducting other ongoing response actions at the disposal site are not required to meet Tier Classification deadlines or achieve a Permanent Solution provided such Utility-related Abatement Measures are conducted in accordance with 310 CMR 40.0460. In such cases, Other Persons shall comply with the notice and Status Report requirements as specified at 310 CMR 40.0170(9).

40.0462: Conducting Utility-related Abatement Measures

- (1) Except as provided in 310 CMR 40.0462(3), Utility-related Abatement Measures shall not be undertaken by a person performing construction activities until after that person has notified the Department orally of:
 - (a) any release or threat of release of oil and/or hazardous material at the construction site for which notification to the Department by any person is required under the provisions of 310 CMR 40.0315;
 - (b) their intentions to conduct a Utility-related Abatement Measure in compliance with all applicable requirements of 310 CMR 40.0460; and
 - (c) the name and license number of the Licensed Site Professional who has been engaged or employed by the person conducting the Utility-related Abatement Measure.
- (2) Persons providing oral notification to the Department pursuant to 310 CMR 40.0462(1) shall submit written confirmation of such notice to the Department within seven days, using a transmittal form established by the Department for such purposes. Such confirmation shall include submittal of a Release Notification Form as described in 310 CMR 40.0371, in cases where the person conducting the Utility-related Abatement Measure is also a person required to notify pursuant to the provisions of 310 CMR 40.0331.
- (3) Notwithstanding the provisions of 310 CMR 40.0462(1), notification to the Department of releases that require notification pursuant to 310 CMR 40.0315 shall not be required prior to the initiation of Utility-related Abatement Measures in cases where emergency actions are being undertaken to repair a damaged or defective utility installation. In such cases, notification shall be provided to the Department as soon as possible thereafter, and within 72 hours of conducting the Utility-related Abatement Measure.
- (4) Notwithstanding any other provisions of 310 CMR 40.0460 or 310 CMR 40.0030, persons conducting Utility-related Abatement Measures shall not be required to engage or employ a Licensed Site Professional for conducting Utility-related Abatement Measures that are limited to the excavation and/or handling of:
 - (a) not more than 100 cubic yards (cumulative, for any site) of soil contaminated solely by a release of oil or waste oil at concentrations equal to or greater than an applicable Reportable Concentration; or
 - (b) not more than 20 cubic yards (cumulative, for any site) of soil contaminated by a release of hazardous material or a mixture of hazardous material and oil or waste oil at concentrations equal to or greater than an applicable Reportable Concentration.
- (5) Contaminated soil removed from a construction site under the provisions of 310 CMR 40.0462(4) shall be managed in compliance with all applicable provisions of 310 CMR 40.0030, excluding 310 CMR 40.0034(4)(a).

40.0462: continued

(6) If the on-site temporary storage of Remediation Waste is precluded due to public safety or traffic concerns, such Remediation Waste may be temporarily stored at another location owned or operated by the RP, PRP or Other Person conducting the Utility-related Abatement Measure, or at a facility permitted, licensed or approved to accept such materials, provided such Remediation Waste is returned to the original site of generation for backfilling or on-site treatment within 14 days of its removal from the site, and is otherwise managed in accordance with the applicable provisions of 310 CMR 40.0460 and 40.0030.

(7) Except for those emergency repairs that occur during non-business hours, Utility-related Abatement Measures shall not be undertaken on any property until a reasonable attempt is made to notify the owner of the property of the discovery of contamination and of the scope and detail of the proposed response action. In the event of emergency repairs, the owner of the property in question shall be notified as soon as possible thereafter. Notwithstanding the foregoing, no rights to undertake any actions beyond those rights otherwise possessed by persons undertaking such actions are created by this provision.

40.0463: Approvals Required to Conduct Utility-related Abatement Measures

(1) Utility-related Abatement Measures conducted in conformance with all applicable provisions of 310 CMR 40.0460 shall not require approval from the Department under the provisions of 310 CMR 40.0400. Persons conducting Utility-related Abatement Measures shall comply with all other applicable federal, state and local laws, ordinances, regulations, rules and bylaws.

(2) Notwithstanding 310 CMR 40.0463(1), the Department shall have the right to prohibit any person from undertaking any Utility-related Abatement Measure, or to approve such measures subject to such conditions as the Department deems necessary, in order to protect and preserve health, safety, public welfare and/or the environment, based upon site specific circumstances and conditions.

40.0464: Performance Standards for Utility-related Abatement Measures

The following performance standards shall be met for all Utility-related Abatement Measures:

- (1) contamination at the disposal site shall not be exacerbated as a result of Utility-related Abatement Measures or as a result of structures placed within an area of identified contamination;
- (2) construction workers, surrounding human populations, and environmental receptors shall be reasonably protected from exposure to oil and/or hazardous material during and following construction activities; and
- (3) contaminated soil, contaminated groundwater, and other Remediation Wastes removed from the disposal site and construction area shall be managed in compliance with the provisions of 310 CMR 40.0030 and all applicable federal, state and local laws.

40.0465: Utility-related Abatement Measures Status and Remedial Monitoring Reports

(1) Persons conducting Utility-related Abatement Measures shall submit a Status Report to the Department 120 days following notification to the Department of their intentions to conduct a Utility-related Abatement Measure pursuant to 310 CMR 40.0462(1)(b), and every six months thereafter, until a Utility-related Abatement Measure Completion Report is submitted to the Department in accordance with 310 CMR 40.0466. Each Status Report shall document Utility-related Abatement Measure activities occurring over the period of time since the previously submitted Status Report.

(2) Utility-related Abatement Measure Status Reports shall contain, at a minimum, the following information:

40.0465: continued

- (a) the status of response operations;
- (b) any significant new site information or data;
- (c) details of and/or plans for the management of Remediation Waste, Remedial Waste-water and/or Remedial Additives;
- (d) any other information required by the Department pursuant to any condition that the Department imposes on the right to conduct Utility-related Abatement Measures, pursuant to 310 CMR 40.0463(2); and
- (e) an LSP Opinion as to whether the Utility-related Abatement Measure is being conducted in conformance with the provisions of 310 CMR 40.0000 and any conditions established by the Department.

(3) Status Reports shall not be required for any Utility-related Abatement Measure completed within 120 days following notification to the Department of the intention to conduct the same, pursuant to 310 CMR 40.0462(1)(b).

(4) Utility-related Abatement Measure Status Reports shall be submitted to the Department using a transmittal form established by the Department for such purposes.

(5) For a disposal site where Active Operation and Maintenance of a remedial action is being conducted as part of a URAM, a Remedial Monitoring Report shall be submitted to the Department on a form established by the Department for such purposes at a frequency of every six months and concurrently with the submittal of the URAM Status Report. In such cases when the Active Operation and Maintenance of a remedial action is initiated after the submittal of the first URAM Status Report, the Remedial Monitoring Report shall be submitted concurrently with the next URAM Status Report.

40.0466: Utility-related Abatement Measure Completion Reports

(1) A Utility-related Abatement Measure Completion Report shall be submitted to the Department within 60 days of the completion of all response actions associated with a Utility-related Abatement Measure.

(2) A Utility-related Abatement Measure Completion Report shall contain, at a minimum, the following:

- (a) a succinct summary of information and data pertaining to the discovery, location and evaluation of encountered contamination, and of all response actions undertaken and/or completed;
- (b) documentation on the management of Remediation Waste, Remedial Additives and/or Remedial Wastewater managed at the site; and
- (c) details on any proposed or ongoing active or passive remedial systems that will remain in place at the site.

(3) Except as provided in 310 CMR 40.0466(4), a Utility-related Abatement Measure shall not be considered complete until all stockpiled/stored Remediation Waste generated as a result of the Utility-related Abatement Measure is removed from the site pursuant to the provisions of 310 CMR 40.0030.

(4) Remediation Waste may be stored, treated, managed, disposed, recycled or reused at a site following the submission to the Department of a Utility-related Abatement Measure Completion Report and Completion Statement only if:

- (a) such actions are conducted in conformance with the provisions of 310 CMR 40.0030; and
- (b) a Release Abatement Measure Plan pursuant to the provisions of 310 CMR 40.0440 or a Remedy Implementation Plan pursuant to the provisions of 310 CMR 40.0870 is submitted to the Department as an attachment to the Utility-related Abatement Measure Completion Statement.

(5) Except as provided in 310 CMR 40.0466(6), Utility-related Abatement Measure Completion Reports shall be submitted to the Department appended to a Completion Statement form established by the Department for such purposes. The Completion Statement form shall contain:

40.0466: continued

- (a) an LSP Opinion on whether the Utility-related Abatement Measure was conducted in accordance with 310 CMR 40.0460 and any approval conditions specified by the Department; and
- (b) the certification of the submittal required by 310 CMR 40.0009.

(6) Notwithstanding the provisions of 310 CMR 40.0466(5), an LSP Opinion shall not be required for Utility-related Abatement Measure Completion Reports documenting response actions at those Utility-related Abatement Measures described at 310 CMR 40.0462(4).

40.0467: Possible Outcomes of Utility-related Abatement Measures

The following actions are possible following the initiation and/or completion of Utility-related Abatement Measures:

- (1) Utility-related Abatement Measures are terminated due to the discovery of a "Two Hour" or "72 Hour" release or threat of release described in 310 CMR 40.0311 through 40.0314, and continued work on the construction project requires the implementation of an Immediate Response Action by an RP, PRP, or Other Person;
- (2) Utility-related Abatement Measures have adequately remediated the release or threat of release encountered at the site, allowing for the filing of a Permanent Solution Statement, as described in 310 CMR 40.1000; or
- (3) additional response actions are necessary at the site following the completion of Utility-related Abatement Measures, to be conducted by persons identified as Responsible Parties under M.G.L. c. 21E, § 5(a), or electively by PRPs or Other Persons.

40.0480: Phase I - Initial Site Investigation Report

310 CMR 40.0481 through 40.0489, cited collectively as 310 CMR 40.0480, set forth requirements and procedures for preparing a Phase I - Initial Site Investigation Report.

40.0481: General Provisions for Phase I Initial Site Investigation Report

- (1) A Phase I Initial Site Investigation Report (hereinafter referred to as the "Phase I Report") is a document which contains the results of Preliminary Response Actions undertaken at a disposal site pursuant to 310 CMR 40.0400. The purpose of a Phase I Report is to record information in a standardized format in order to:
 - (a) facilitate the evaluation and Tier Classification of a disposal site in those cases where Comprehensive Response Actions may need to be undertaken; or
 - (b) where appropriate, support a Permanent Solution Statement filed prior to Tier Classification of a disposal site.
- (2) A Phase I Report shall be submitted to the Department for any disposal site undergoing Tier Classification under the provisions of 310 CMR 40.0500.
- (3) The preliminary description of hydrogeologic conditions at a disposal site required in a Phase I Report pursuant to 310 CMR 40.0483(d) shall be based upon the installation of a minimum of three groundwater monitoring wells, in locations near known or likely release or source areas. This requirement may be modified or eliminated based upon the exercise of Technical Justification by a Licensed Site Professional, as described in 310 CMR 40.0193.

40.0482: Performance Standards

A Phase I Report shall provide sufficient information to meet the requirements of the Tier Classification process described in 310 CMR 40.0500 or, where appropriate, support a Permanent or Temporary Solution Statement filed for a site prior to Tier Classification.

40.0483: Content of Phase I Report

(1) Except as provided in 310 CMR 40.0483(2) and 40.0193, the following information shall be contained in all Phase I Reports submitted to the Department, in the format established below:

(a) General Disposal Site Information. The Phase I Report shall provide general information which defines and describes the disposal site and surrounding area, including:

1. the DEP Release Tracking Number(s) applicable to the disposal site under investigation;
2. the address(es) and geographical location coordinates of the disposal site and/or properties comprising the disposal site;
3. a Disposal Site Locus Map, based upon a U.S.G.S. topographic or equivalent map, depicting 500 foot and ½ mile radii from the boundaries of the disposal site;
4. an estimate of the number of on-site workers at the disposal site;
5. an estimate of the residential population within a ½ mile radius of the disposal site;
6. a general description of land uses surrounding the disposal site;
7. the number of Institutions within 500 feet of the disposal site; and
8. a listing and description of any of the following natural resource areas located within 500 feet of the disposal site:
 - a. all surface waters, including wetlands, vernal pools, ponds, lakes, streams, rivers, and reservoirs;
 - b. drinking water supplies consisting of Zone II areas, Interim Wellhead Protection Areas, Zone A areas, Potentially Productive Aquifers, and private wells; and
 - c. Areas of Critical Environmental Concern, Sole Source Aquifers, local, state and/or federal protected open space, fish habitats, and habitats of Species of Special Concern or Threatened or Endangered Species.

(b) Disposal Site Map. Phase I Reports shall include one or more maps or plans depicting the location of the following:

1. disposal site boundaries, to the extent they have been defined by assessments conducted to date;
2. boundaries of properties located within the disposal site; and
3. the following structures, areas and monitoring points, as appropriate:
 - a. on-site buildings;
 - b. floor and storm drains;
 - c. subsurface utilities serving or transecting the disposal site;
 - d. oil and/or hazardous material storage and disposal structures and/or areas;
 - e. the location of any known oil and/or hazardous material releases and/or threats of release; and
 - f. monitoring wells, borings, test pits and other relevant sampling and screening points.

(c) Disposal Site History. The disposal site history shall be presented in the Phase I Report in reverse chronological order, beginning with the current use of the disposal site, and shall include the following:

1. Owner/Operator and Operations History.
 - a. a list of current and relevant previous owners and operators of the properties comprising the disposal site, including dates of ownership and operation; and
 - b. a description of current and historical uses of the disposal site, including residential, commercial and industrial activities and manufacturing processes, and the location of buildings and structures currently or previously located on the disposal site.
2. Release History. A description of any known and relevant releases of oil and/or hazardous material at the disposal site shall be provided. For each relevant release, the description shall include:
 - a. the source and location of the release;
 - b. the known or suspected cause of the release;
 - c. the known or approximate date and duration of the release;
 - d. the type of oil and/or hazardous material released;
 - e. the known or approximate volume of the release; and
 - f. any measures taken to assess, contain or mitigate the release.
3. Oil and/or Hazardous Material Use and Storage History. The Phase I Report shall describe all relevant current and past use and storage of oil and/or hazardous material at the disposal site, and shall include a description of the following:

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- a. types of oil and/or hazardous material, including generic names, chemical names and trade names, if available;
 - b. uses of oil and/or hazardous material;
 - c. quantities used;
 - d. periods of use;
 - e. on-site storage locations, underground storage tanks, above-ground tanks, drums, lagoons, pits and piles; and
 - f. age and volume of tanks and other storage containers.
4. **Waste Management History.** The Phase I Report shall include a general description of all known relevant waste management practices, excluding the off-site disposal of solid waste. This description shall address the types of wastes or waste streams, and the locations of points of discharge or on-site disposal or treatment with respect to the following:
- a. land disposal, including landfills and lagoons;
 - b. subsurface disposal including drains, dry wells, septic systems and leach fields;
 - c. surface water discharges to natural and man-made water bodies;
 - d. discharges to wastewater treatment plants; and
 - e. any other relevant means of disposal or treatment.
5. **Environmental Permits and Compliance History.** The Phase I Report shall include a history of all relevant local, state and federal environmental permits and oil and/or hazardous material storage permits issued for the disposal site or on-site facilities, including without limitation information on any permit violations. Relevant permits may include but are not limited to:
- a. permits for M.G.L. c. 21E response actions;
 - b. oil and/or hazardous material storage permits;
 - c. wastewater discharge permits;
 - d. groundwater discharges permits;
 - e. air quality discharges permits;
 - f. wetlands alteration permits;
 - g. Resource Conservation and Recovery Act (RCRA) permits; and
 - h. National Pollution Discharge Elimination System (NPDES) permits.
6. **Potentially Responsible Parties.** The Phase I Report may include a list of the names and addresses of all Potentially Responsible Parties identified for the disposal site.
- (d) **Site Hydrogeological Characteristics.** The Phase I Report shall include details of subsurface investigations conducted at the disposal site, together with a preliminary or generalized description and depiction of site hydrogeologic conditions, including, without limitation:
1. a concise description of all relevant geologic, hydrologic, geophysical and other subsurface investigations and assessments conducted to date at the disposal site;
 2. documentation on boring advancement, well construction and well development, including copies of well drilling logs, within or appended to the Phase I Report;
 3. a characterization of general site topography, including slope, presence of bedrock outcrops and surface drainage features;
 4. a characterization of geologic and stratigraphic conditions, including:
 - a. soil type(s), stratigraphy and evidence of filling or waste disposal;
 - b. where appropriate, the known or estimated depths to, and description of, bedrock; and
 5. a description and graphical depiction of groundwater flow direction or potentiometric surface elevations, indicating the location of monitoring wells.
- (e) **Nature and Extent of Contamination.** The Phase I Report shall provide information on the nature and extent of contamination, as determined by Initial Site Investigation Activities and Preliminary Response Actions undertaken to date at the disposal site, including:
1. evidence of releases of oil and/or hazardous material to the environment including visual and olfactory evidence, results of field screening and laboratory analysis, and historical knowledge;
 2. the names, concentrations, and volumes (if applicable) of all released oil and hazardous material detected to date at the disposal site;

40.0483: continued

- a. volumes shall be reported in gallons, pounds, tons or cubic feet, as appropriate;
- b. analytical results for each media sampled shall be summarized in the text and in tables in the body of the Phase I Report;
- c. for the purpose of disposal site classification, maximum and minimum concentrations for each contaminant detected shall be identified in a summary table in the body of the Phase I Report;
- 3. laboratory data sheets, included in an appendix to the Phase I Report;
- 4. information and details on the approximate horizontal and vertical extent of contamination based on best available information, as obtained from site investigations of scope and detail commensurate with release and site conditions; and
- 5. information and details on NAPL, if present or suspected, including NAPL stability and the approximate horizontal and vertical extent of NAPL contamination, as obtained from site investigations of scope and detail commensurate with release and site conditions.
- (f) Migration Pathways and Exposure Potential. The Phase I Report shall describe and evaluate known and potential contaminant migration pathways and exposure points, to the extent that such information is known, including:
 - 1. evidence of and the potential for oil and/or hazardous material migration by one or more of the following pathways:
 - a. air;
 - b. soil;
 - c. groundwater;
 - d. soil gas;
 - e. preferential flow pathways such as subsurface utility lines and void spaces; and/or
 - f. surface water, including sediments;
 - 2. a discussion of known and potential human exposure to oil and hazardous material present at the disposal site, by inhalation, dermal contact or ingestion of contaminants; and
 - 3. a discussion of known and potential impacts of oil and hazardous material present at the disposal site to environmental receptors, with special attention given to the natural resource areas referenced in 310 CMR 40.0483(1)(a)8.c.
- (g) Evaluation for Immediate Response Actions. The Phase I Report shall include an evaluation of the need to conduct an Immediate Response Action, as described in 310 CMR 40.0412.
- (h) Conclusions. The Phase I Report shall include a Conclusions section containing a summary of findings and statement of conclusions with respect to the site, a preliminary Conceptual Site Model for the disposal site and the outcome of Initial Site Investigation Activities, as documented in the Phase I Report, and as described in 310 CMR 40.0486.

(2) In addition to the Phase I Report requirements set forth in 310 CMR 40.0483(1), such additional information as may be necessary to adequately and completely characterize a disposal site in accordance with the Response Action Performance Standard described in 310 CMR 40.0191, and/or as required by unique release, threat of release and/or site conditions, shall be provided in the Phase I Report. It may also be appropriate to eliminate certain information categories, or investigation or assessment elements from the Phase I Report, as may be consistent with unique release, threat of release and/or site conditions, by application of the Technical Justification standard set forth in 310 CMR 40.0193.

40.0484: Phase I Report Completion Statement

- (1) All Phase I Reports submitted to the Department in support of a Permanent or Temporary Solution Statement, or as part of Tier Classification of a disposal site pursuant to 310 CMR 40.0500, shall be appended to the appropriate transmittal form established by the Department for such purposes.
- (2) The Completion Statement form submitted with a Phase I Report shall include the following:
 - (a) an LSP Opinion as to whether the Phase I Report conforms with applicable requirements specified in 310 CMR 40.0480;

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- (b) the outcome of the Phase I Report, as described in 310 CMR 40.0486; and
- (c) the certification of the submittal required by 310 CMR 40.0009.

40.0485: Public Involvement

Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public Involvement Activities relevant to Initial Site Investigation Activities specifically include those activities set forth in 310 CMR 40.1403(3)(e), and may include, but are not limited to, those activities set forth in 310 CMR 40.1403(3)(a) and (4)(f).

40.0486: Possible Outcomes of a Phase I Report

The following outcomes are possible upon completion of a Phase I Report:

- (1) Comprehensive Response Actions are necessary at the disposal site. Tier Classification of the site pursuant to the provisions of 310 CMR 40.0500 shall be undertaken by RPs, PRPs, or Other Persons, if necessary, and prior to the initiation of Comprehensive Remedial Actions; or
- (2) the requirements of a Permanent Solution have been met, pursuant to the provisions of 310 CMR 40.1000, and a Permanent Solution Statement shall be submitted to the Department by the RP, PRP, or Other Person conducting response actions.

SUBPART E: TIER CLASSIFICATION AND RESPONSE ACTION DEADLINES

40.0500: Tier Classification and Response Action Deadlines

The regulations published at 310 CMR 40.0500 through 40.0599, cited collectively as 310 CMR 40.0500, establish requirements and procedures for Tier Classification, and deadlines for completing response actions at disposal sites. Tier Classification results are considered by the Department in determining the appropriate level of Departmental oversight for response actions conducted by RPs, PRPs and Other Persons at disposal sites.

40.0501: Scope and Applicability

- (1) 310 CMR 40.0500 establishes requirements and procedures for the performance of response actions at Tier I and Tier II disposal sites, including, but not limited to, requirements for re-evaluating such disposal sites and requirements for submittals. For Tier Classified disposal sites, the specific deadlines for RPs, PRPs and Other Persons to achieve a Permanent or Temporary Solution pursuant to 310 CMR 40.1000 are determined in accordance with 310 CMR 40.0560.
- (2) Except as provided in 310 CMR 40.0501(3), all sites for which the Department receives notification of a release or threat of release of oil and/or hazardous material pursuant to 310 CMR 40.0300 on or after October 1, 1993, or has discovered or discovers that a release or threat of release of oil and/or hazardous material has occurred, shall be classified by RPs, PRPs or Other Persons as either a Tier I or Tier II disposal site in accordance with 310 CMR 40.0500. An RP, PRP or Other Person shall submit a Tier Classification Submittal to the Department by the following deadlines:
 - (a) within one year of the earliest date computed in accordance with 310 CMR 40.0404(3); or
 - (b) as otherwise specified by the Department in an Interim Deadline pursuant to 310 CMR 40.0167 or order pertaining to such release or threat of release. In the event that multiple deadlines for Tier Classification would be established by 310 CMR 40.0501(2) with respect to any specific disposal site, the earliest of the applicable deadlines shall apply for the purposes of Tier Classification.

40.0501: continued

- (3) Notwithstanding any provision of 310 CMR 40.0501(2) to the contrary, an RP, PRP or Other Person conducting response actions at a disposal site shall not be required to submit a Tier Classification Submittal if such RP, PRP or Other Person submits either a Permanent Solution Statement pursuant to 310 CMR 40.1000 or a Downgradient Property Status Submittal pursuant to 310 CMR 40.0180 to the Department within one year of the earliest date computed in accordance with 310 CMR 40.0404(3).
- (4) Except as provided at 310 CMR 40.0062(1)(j) for Special Project Designations, an individual Tier Classification Submittal may be for a single discrete disposal site located on one or more parcels of land or to address multiple discrete disposal sites located on a single parcel of land.
- (5) An RP, PRP or Other Person may undertake Phase II and Phase III Comprehensive Response Actions pursuant to 310 CMR 40.0800 prior to Tier Classification without the Department's prior approval, unless otherwise specified in writing by the Department.
- (6) Except as provided at 310 CMR 40.0893(4) for response actions implemented at disposal sites in Remedy Operation Status, an RP, PRP or Other Person shall have a valid Tier Classification or Extension thereof in effect from the time of the initial Tier Classification until such time that a Permanent Solution Statement is submitted.
- (7) As specified at 310 CMR 40.1067(4)(c), (5)(c) and (6), an RP, PRP or Other Person shall have a valid Tier Classification or Extension thereof to conduct remedial actions at disposal sites where a Permanent Solution Statement has been previously submitted.

40.0502: Tier ID Disposal Sites

- (1) A disposal site shall be deemed a Tier ID ("default") disposal site if any of the following apply:
 - (a) an RP, PRP or Other Person for such disposal site fails to submit to the Department one of the following by the applicable deadline in 310 CMR 40.0501:
 1. a Permanent Solution Statement; or
 2. a Tier Classification Submittal; or
 - (b) the person undertaking response actions is in noncompliance with M.G.L. c. 21E, 310 CMR 40.0000 or any other applicable requirement, and the Department reclassifies the disposal site as a Tier ID disposal site pursuant to 310 CMR 40.0583.
- (2) An RP, PRP or Other Person shall not conduct Comprehensive Response Actions pursuant to 310 CMR 40.0800 at a Tier ID disposal site.
- (3) An RP, PRP or Other Person for any disposal site that was not previously classified and is deemed a Tier ID disposal site pursuant to 310 CMR 40.0502(1) shall Tier Classify such disposal site pursuant to the requirements at 310 CMR 40.0510.
- (4) Any disposal site deemed a Tier ID disposal site pursuant to 310 CMR 40.0502(1)(b) shall be reclassified as follows:
 - (a) if the disposal site was previously classified pursuant to 310 CMR 40.0510, then the previous classification shall be effective when the Department determines that the RP, PRP, or Other Person has addressed the non-compliance, provided such classification has not expired;
 - (b) if the disposal site was not previously classified pursuant to 310 CMR 40.0510, then the RP, PRP, or Other Person shall classify the disposal site pursuant to 310 CMR 40.0510.

40.0510: Tier Classification Process

- (1) The Tier Classification process consists of:
 - (a) the completion of a Phase I - Initial Site Investigation Report in accordance with 310 CMR 40.0480;
 - (b) a comparison of conditions at a disposal site with the Tier I Criteria set forth in 310 CMR 40.0520(2);
 - (c) the preparation and filing with the Department of a Tier Classification Submittal in accordance with 310 CMR 40.0510(2); and
 - (d) the public involvement activities relevant to Tier Classification, including, but not limited to, those activities set forth in 310 CMR 40.1403(3) and (6). Response actions may be initiated

or continued at the disposal site during the comment period described in 310 CMR 40.1403(6)(a), unless otherwise prohibited by the Department.

40.0510: continued

- (2) A Tier I or Tier II Classification Submittal shall consist of the following:
 - (a) a completed Tier Classification transmittal form using the form established by the Department for such purposes;
 - (b) an LSP Tier Classification Opinion pursuant to 310 CMR 40.0510(4);
 - (c) the certification required by 310 CMR 40.0009;
 - (d) the certification required by 310 CMR 40.0540(1);
 - (e) the compliance history required by 310 CMR 40.0540(2); and
 - (f) a conceptual Phase II Scope of Work that, at a minimum, includes:
 1. a general plan for assessing contaminants of concern, potential receptors and potential exposure pathways, identifying the likely technical approach(es) to be used; and
 2. a projected schedule that includes interim milestones.
- (3) Tier Classification Public and Written Notice Requirements.
 - (a) The following actions must be taken to provide notice to the public and local officials of the Tier Classification:
 1. within seven days of filing a Tier Classification Submittal, publish a public notice pursuant to 310 CMR 40.1403(2)(b) as specified at 310 CMR 40.1403(6)(a);
 2. at least three days prior to publication of the public notice, provide a written notice pursuant to 310 CMR 40.1403(2)(a) to the Chief Municipal Officer(s) and Board(s) of Health in the community(ies) in which the disposal site is located and in any other community(ies) that is, or is likely to be, affected by the disposal site as specified at 310 CMR 40.1403(6)(b); and
 3. in the case of a Tier I Classification for a disposal site where there is evidence of groundwater contamination with oil and/or hazardous material at concentrations equal to or exceeding the applicable RCGW-1 Reportable Concentration set forth in 310 CMR 40.0360, and such groundwater is located within an Interim Wellhead Protection Area, Zone II, or Zone A of a Class A surface drinking water source, provide the owner(s) of the Public Water Supply with a written notice pursuant to 310 CMR 40.1403(2)(a) at least three days prior to publication of the public notice, that includes:
 - a. a copy of the public notice; and
 - b. a copy of the disposal site map included in the Phase I Report pursuant to 310 CMR 40.0483(1)(b).
 - (b) Publication of the public notice shall be documented to the Department as specified at 310 CMR 40.1403(2)(c)2.
 - (c) A copy of each written notice sent to local officials and, where applicable, Public Water Supply owner(s), pursuant to 310 CMR 40.0510(3)(a)2. and 3. respectively, shall be concurrently submitted to the Department as specified at 310 CMR 40.1403(2)(c)1.
- (4) An LSP Tier Classification Opinion shall consist of:
 - (a) a completed Phase I Report pursuant to 310 CMR 40.0480;
 - (b) on the basis of the Tier I Criteria at 310 CMR 40.0520(2), an LSP Opinion as to whether a disposal site should be classified as Tier I or Tier II; and
 - (c) any other information required by 310 CMR 40.0520 or 40.0530, including, but not limited to, any other Phase Reports, Status Reports and Completion Statements material to the LSP Tier Classification Opinion.
- (5) Unless otherwise specified by the Department, the Tier Classification effective date shall be the date a complete Tier Classification Submittal is received by the Department. Such Tier Classification as either Tier I or Tier II shall apply unless and until the RP, PRP or Other Person submits a subsequent reclassification to the Department pursuant to 310 CMR 40.0530 or the Department reclassifies the disposal site pursuant to 310 CMR 40.0583.
- (6) Reclassification of a disposal site does not change the effective date of the Tier Classification.

40.0520: Basis for Tier Classification

(1) Disposal Site Information.

- (a) Any person performing Tier Classification for a disposal site shall evaluate such disposal site using the Tier Classification Criteria described in 310 CMR 40.0520(2) based upon:
 - 1. for an initial Tier Classification, data, facts and other information obtained during a Phase I - Initial Site Investigation and documented in the Phase I Report pursuant to 310 CMR 40.0480, and any other relevant data, facts or information known by such person at the time of the initial Tier Classification;
 - 2. for reclassification, any data, facts or information obtained subsequent to the initial Tier Classification that are relevant to determining whether the disposal site conditions meet the Tier I Criteria at 310 CMR 40.0520(2);
- (b) For an initial Tier Classification or reclassification, all relevant data, facts and other information considered during Tier Classification shall be documented in the applicable Phase Report(s) and the LSP Tier Classification Opinion. LSPs shall use the Response Action Performance Standard in 310 CMR 40.0191 to develop an LSP Tier Classification Opinion;
- (c) Any person performing an initial Tier Classification or reclassification may account for risk reduction measures, if any, conducted at the disposal site pursuant to 310 CMR 40.0400 prior to performing such Tier Classification or reclassification, including Immediate Response Actions, Release Abatement Measures and Utility-related Abatement Measures.

(2) Tier I Criteria. Any disposal site which meets the following criteria at the time of Tier Classification shall be classified as Tier I:

- (a) there is evidence of groundwater contamination with oil and/or hazardous material at concentrations equal to or exceeding the applicable RCGW-1 Reportable Concentration set forth in 310 CMR 40.0360, and such groundwater is located within an Interim Wellhead Protection Area, Zone II, or within 500 feet of a Private Water Supply Well;
- (b) an Imminent Hazard is present;
- (c) one or more remedial actions are required as part of an Immediate Response Action pursuant to 310 CMR 40.0414(2); or
- (d) one or more response actions are required as part of an Immediate Response Action to eliminate or mitigate a Critical Exposure Pathway pursuant to 310 CMR 40.0414(3).

(3) Any disposal site that meets one or more of the Tier I Criteria set forth in 310 CMR 40.0520(2) and is classified as Tier I may be reclassified as Tier II pursuant to 310 CMR 40.0530 once the Tier I Criteria no longer apply at the disposal site, and, with regard to the Tier I Criteria at 310 CMR 40.0520(2)(b), (c) and (d), an Immediate Response Action Completion Statement is submitted or has been submitted documenting the completion of the Immediate Response Actions.

(4) Tier II Classification. Any disposal site that is not Tier ID pursuant to 310 CMR 40.0502 or 40.0520(5) and does not meet the Tier I Criteria described at 310 CMR 40.0520(2) shall be classified as Tier II.

40.0530: Reclassification by RPs, PRPs, or Other Persons During Response Actions

(1) An RP, PRP or Other Person performing response actions at a disposal site following Tier Classification shall re-evaluate such disposal site using the Tier I Criteria specified in 310 CMR 40.0520(2) if he or she obtains information which could cause reclassification of the disposal site from Tier II to Tier I and shall submit to the Department a Tier Classification Submittal for the reclassification of the disposal site within 60 days of obtaining knowledge that the disposal site meets the Tier I Criteria.

40.0530: continued

- (2) An RP, PRP or Other Person may downgrade a Tier I disposal site classification if, upon re-evaluation of the disposal site pursuant to the Tier I Criteria at 310 CMR 40.0520(2), the disposal site is determined to no longer meet one or more of the Tier I Criteria.
- (3) An RP, PRP or Other Person who is reclassifying a disposal site pursuant to 310 CMR 40.0530(1) or (2) shall submit a Tier Classification Submittal to document the reclassification that includes:
 - (a) a completed Tier Classification transmittal form using the form established by the Department for such purposes;
 - (b) on the basis of the Tier I Criteria, an LSP Opinion as to whether a disposal site should be reclassified as Tier I or Tier II;
 - (c) any other information required by 310 CMR 40.0520 or 40.0530, including, but not limited to, any other Phase Reports, Status Reports, and Completion Statements material to such LSP Opinion; and
 - (d) the certification required by 310 CMR 40.0009.
- (4) Except as otherwise specified by the Department, reclassification of a disposal site by an RP, PRP or Other Person who has been performing and is continuing to perform response actions at such disposal site shall not change the effective date of the Tier Classification or the response action deadlines based upon the initial Tier Classification effective date of such disposal site, as detailed in 310 CMR 40.0560(1) and (2).
- (5) A Tier Classification Submittal for the reclassification of a disposal site shall include the public involvement activities relevant to Tier Classification, including, but not limited to, those activities set forth in 310 CMR 40.1403(3) and (6). Response actions may be initiated or continued at the disposal site during the comment period described in 310 CMR 40.1403(6)(a), unless otherwise prohibited by the Department.
- (6) Reclassification pursuant to 310 CMR 40.0530 shall not be required for disposal sites classified as Tier II prior to June 20, 2014 for conditions that meet the Tier I Criteria specified in 310 CMR 40.0520(2)(c) and (d) where the RP, PRP, or Other Person had knowledge of and was conducting response actions to address such conditions prior to June 20, 2014.

40.0540: Demonstration of Ability and Willingness

- (1) Each person filing a Tier Classification Submittal with the Department shall include the certification required by 310 CMR 40.0009 and the following written declaration:

"I attest under the pains and penalties of perjury that (i) I/the person(s) or entity(ies) on whose behalf this submittal is made has/have personally examined and am/is familiar with the requirements of M.G.L. c. 21E and 310 CMR 40.0000; (ii) based upon my inquiry of the/those Licensed Site Professional(s) employed or engaged to render Professional Services for the disposal site which is the subject of this Transmittal Form and of the person(s) or entity(ies) on whose behalf this submittal is made, and my/that person's(s') or entity's(ies') understanding as to the estimated costs of necessary response actions, that/those person(s) or entity(ies) has/have the technical, financial and legal ability to proceed with response actions for such site in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements; and (iii) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is aware of the requirements in 310 CMR 40.0172 for notifying the Department in the event that I/the person(s) or entity(ies) on whose behalf this submittal is made am/is(are) unable to proceed with the necessary response actions."
- (2) Each person filing a Tier Classification Submittal with the Department shall include therein a statement detailing such person's history of compliance with the Department's regulations, including, but not limited to, M.G.L. c. 21E, 310 CMR 40.0000, and other laws for the protection of health, safety, public welfare and the environment administered or enforced by the Department or other federal, state and local government agencies, that are relevant to conditions at the disposal site.

NON-TEXT PAGE

40.0560: Response Action Deadlines and Requirements for Tier Classified Disposal Sites

(1) Deadlines for Achieving a Permanent Solution, Temporary Solution or Remedy Operation Status. Except as expressly provided by 310 CMR 40.0000 or as otherwise ordered or agreed to in writing by the Department, an RP, PRP or Other Person undertaking response actions at a disposal site shall achieve a Permanent Solution, Temporary Solution, or Remedy Operation Status within five years of the effective date of initial Tier Classification. The eventual achievement of a Permanent Solution is required at all disposal sites where a Temporary Solution or Remedy Operation Status is achieved.

- (a) The Tier Classification for a disposal site pursuant to 310 CMR 40.0510 shall expire five years from the effective date of the initial Tier Classification of such disposal site; and
- (b) An RP, PRP or Other Person shall not conduct Comprehensive Response Actions pursuant to 310 CMR 40.0800 at a disposal site for which a Tier Classification has expired unless a Tier Classification Extension is obtained pursuant to 310 CMR 40.0560(7).

(2) Deadlines for Submittals. Except as provided by 310 CMR 40.0530(4), 40.0560(3), or 40.0000 or as otherwise ordered or agreed to in writing by the Department, an RP, PRP or Other Person undertaking response actions at a Tier Classified disposal site shall submit the following documents to the Department by the following deadlines:

- (a) a conceptual scope of work for a Phase II - Comprehensive Site Assessment pursuant to 310 CMR 40.0834 prior to the implementation of Phase II field work, updated as necessary to reflect material modifications from the conceptual scope of work submitted pursuant to 310 CMR 40.0510(2)(f) at the time of initial Tier Classification, unless the Phase II field work had been implemented prior to Tier Classification;
- (b) a Phase II Report within three years of the effective date of Tier Classification;
- (c) if applicable, a Phase III Remedial Action Plan within four years of the effective date of Tier Classification;
- (d) if applicable, a Phase IV Remedy Implementation Plan within four years of the effective date of Tier Classification; and
- (e) a Permanent Solution Statement, or Temporary Solution Statement pursuant to 310 CMR 40.1000, or a Remedy Operation Status Submittal pursuant to 310 CMR 40.0893, within five years of the effective date of Tier Classification.

(3) Submittal to the Department of those documents described in 310 CMR 40.0560(2) shall not be required at any disposal site for which a Permanent Solution Statement is submitted to the Department prior to an applicable document submittal deadline.

(4) Approvals.

- (a) Except as provided in 310 CMR 40.0560(4)(b), an RP, PRP or Other Person undertaking response actions at a disposal site classified as Tier I or Tier II pursuant to 310 CMR 40.0510 may perform the response actions which are the subject of the submittals required by 310 CMR 40.0560(2) without the Department's prior approval thereof.
- (b) Notwithstanding 310 CMR 40.0560(4)(a), the Department may at any time require an RP, PRP or Other Person undertaking response actions at a Tier Classified disposal site to obtain prior Departmental approval of one or more of the submittals specified by 310 CMR 40.0560(2) or the response actions or submittals required pursuant to 310 CMR 40.0800. The Department may require such prior approval for submittals or response actions as they relate to the entire disposal site or to some portion thereof.
- (c) No person shall perform Phase IV response actions at a disposal site classified as Tier I or Tier II pursuant to 310 CMR 40.0510 unless and until 20 days have passed from the date of publication of the notice required by 310 CMR 40.0510(3).
- (d) No person shall perform Comprehensive Response Actions at Tier ID disposal sites unless and until the disposal site is classified as Tier I or Tier II pursuant to 310 CMR 40.0510.

(5) Notification of Delay in Compliance with Deadlines for Tier Classified Disposal Sites. Except as provided by 310 CMR 40.0025 or 40.0167 or where a Tier Classification Extension is submitted when the deadline at 310 CMR 40.0560(2)(e) is not met, if any delay in compliance with any deadline or time period required by 310 CMR 40.0560(2) occurs after a disposal site is Tier Classified, the RP, PRP or Other Person performing response action shall notify the Department in writing using a transmittal form provided by the Department for such purposes prior to missing any such deadline or time period, and shall take appropriate measures to minimize such delay in compliance with any deadline or time period. Such notification of delay:

40.0560: continued

- (a) shall state the reason for such delay, the measure or measures to be taken to minimize the delay and a proposed schedule for implementing those measures;
- (b) does not forgive an RP's, PRP's or Other Person's noncompliance with deadlines for response actions in 310 CMR 40.0000.

(6) Notification of Initial Field Activities. RPs, PRPs or Other Persons conducting response actions at Tier Classified disposal sites shall notify the Department at least seven days prior to the commencement of initial field activities related to the implementation of Comprehensive Response Actions. Upon such notification, the Department may impose conditions on and/or arrange to observe the conduct of field work including, but not limited to, the installation of monitoring wells, the excavation of test pits, field sampling of environmental media, soil removal, installation of groundwater recovery systems, the start of Phase IV construction activities, and observation of Phase V monitoring activities.

(7) Tier Classification Extensions.

(a) Except as otherwise provided at 310 CMR 40.0560(7)(g) and 310 CMR 40.0560(7)(h), if a Permanent Solution Statement or Remedy Operation Status Submittal has not been submitted to the Department for a Tier Classified disposal site prior to the expiration of the Tier Classification, the person undertaking response actions at such site shall extend the Tier Classification by submitting a Tier Classification Extension Submittal to the Department.

(b) The Tier Classification Extension Submittal shall be provided to the Department prior to the date of expiration of the Tier Classification as specified at 310 CMR 310 CMR 40.0560(1)(a).

(c) Contents of a Tier Classification Extension Submittal. The Tier Classification Extension Submittal shall consist of the following:

1. a completed transmittal form using a form provided by the Department for such purposes and required supporting documentation, which shall include a statement explaining why a Permanent Solution or Remedy Operation Status has not been achieved at the site;
2. a description of the status of response actions, including a plan and a proposed schedule for implementing such plan, which details the steps that will be taken in order to achieve, at a minimum, a Temporary Solution, if not already achieved, at the disposal site pursuant to 310 CMR 40.1000 within one year of the effective date of the Tier Classification Extension, and a schedule for achieving a Permanent Solution, if feasible;
3. the certification required by 310 CMR 40.0009;
4. the certification required by 310 CMR 40.0540(1);
5. an updated compliance history required by 310 CMR 40.0540(2) since the effective date of the initial Tier Classification; and
6. an LSP Opinion indicating that the plans and proposed schedule for implementing such plans submitted with the Tier Classification Extension are in conformance with the requirements of 310 CMR 40.0000.

(d) Tier Classification Extension Effective Date and Period.

1. except as otherwise provided at 310 CMR 40.0560(7)(g) and 310 CMR 40.0560(7)(h) or specified by the Department, where a complete Tier Classification Extension Submittal is submitted to the Department, the Tier Classification Extension shall take effect on the expiration date of the previous Tier Classification unless the Department issues a written denial for such Extension;
2. unless otherwise specified by the Department, the Extension shall be effective for a period of two years beyond the effective date of the Tier Classification Extension;
3. except as provided at 310 CMR 40.0898(1)(e), an RP, PRP or Other Person shall submit additional Tier Classification Extensions to the Department pursuant to 310 CMR 40.0560(7) if required thereafter.

(e) The Department reserves the right to reconsider the need for Departmental oversight or to initiate enforcement actions related to any Tier Classification Extension Submittal or when any timeline for conducting response actions pursuant to 310 CMR 40.0560 is exceeded.

(f) A Tier Classification Extension obtained under 310 CMR 40.0560(7) means the RP, PRP or Other Person has approval to continue with response actions in compliance with all applicable provisions of 310 CMR 40.0000. Such Extension does not forgive an RP's, PRP's or Other Person's noncompliance with any provisions of 310 CMR 40.0000, including the failure to meet applicable response action deadlines and shall not be construed as approval by the Department of the scope or adequacy of plans or of the response actions as actually conducted.

(g) Tier Classification Extension after Termination of Remedy Operation Status. A Tier

Classification Extension Submittal shall be submitted to the Department upon termination of Remedy Operation Status pursuant to 310 CMR 40.0893(6) unless a Permanent Solution Statement is submitted prior to that date. Notwithstanding 310 CMR 40.0560(7)(d), the Tier Classification Extension in such case shall take effect on the date the Tier Classification Extension is received by the Department and unless otherwise specified by the Department, shall be effective for a period of two years. An RP, PRP or Other Person shall notify the Department pursuant to 310 CMR 40.0560(7) if additional extensions are required thereafter.

(h) Tier Classification Extension for Remedial Actions after a Permanent Solution Statement has been Submitted. A Tier Classification Extension Submittal submitted to the Department pursuant to 310 CMR 40.1067(4)(c) and 310 CMR 40.1067(5)(c) shall take effect on the date the Tier Classification is received by the Department and unless otherwise specified by the Department, shall be effective for a period of two years. An RP, PRP or Other Person shall notify the Department pursuant to 310 CMR 40.0560(7) if additional extensions are required thereafter.

40.0560: continued

(8) Changes in Persons Undertaking Response Actions at Tier Classified Disposal Sites.

(a) No person other than a person who has filed a Tier Classification Submittal for a disposal site with the Department may perform Comprehensive Response Actions at such disposal site, unless that person submits a Tier Classification Transfer Submittal to the Department.

(b) Contents of a Tier Classification Transfer Submittal. A Tier Classification Transfer Submittal shall consist of the following:

1. a completed transmittal form using a form provided by the Department for such purposes, which shall include a statement and/or report explaining the reasons for the change in persons undertaking response actions and a proposed effective date for such change;
2. a listing of all Status and Phase Reports for response actions completed since the effective date of the Tier Classification;
3. the certification required by 310 CMR 40.0009 by the current RP, PRP or Other Person for such disposal site and by the transferee;
4. the certification required by 310 CMR 40.0540(1) by the transferee;
5. the compliance history required by 310 CMR 40.0540(2) for the transferee; and
6. an LSP Opinion indicating that the plans and/or reports submitted are in conformance with the requirements of 310 CMR 40.0000.

(c) A change in persons conducting response actions at a Tier Classified disposal site shall take effect 30 days after submission of a complete Tier Classification Transfer Submittal to the Department unless the Department issues a written denial of such transfer prior to the termination of such 30 day time period.

(d) The Department reserves the right to reconsider the need for Departmental oversight or to initiate enforcement actions related to any Tier Classification Transfer Submittal or when any timeline for achieving a Permanent or Temporary Solution pursuant to 310 CMR 40.0560 at a Tier Classified disposal site is not met.

(e) A change in the person conducting response actions at a Tier Classified disposal site does not change the existing response actions deadlines unless the new person seeks new deadlines in accordance with 310 CMR 40.0570.

40.0570: Requirements for Eligible Persons, Eligible Tenants or Other Persons Seeking to Re-establish Response Action Deadlines

(1) Notwithstanding 310 CMR 40.0560, Eligible Persons, Eligible Tenants or Other Persons who are required or intend to conduct response actions at a Tier Classified disposal site and who have not previously submitted a Tier Classification Submittal for the disposal site may seek to re-establish the deadlines for response actions by submitting a Tier Classification Submittal; provided, however, that for the purpose of re-establishing deadlines pursuant to 310 CMR 40.0570:

- (a) Eligible Persons who became an owner or operator of a site or portion thereof prior to December 14, 2007 shall make such submittal within 120 days of December 14, 2007, unless the Department agrees to a later date;
- (b) Eligible Persons who become an owner or operator of a site or portion thereof after December 14, 2007 shall make such submittal within 120 days of becoming such an owner or operator, unless the Department agrees to a later date;
- (c) Eligible Tenants who acquire occupancy, possession or control of a site or portion thereof prior to December 14, 2007 shall make such submittal within 120 days of December 14, 2007, unless the Department agrees to a later date;
- (d) Eligible Tenants who acquire occupancy, possession or control of a site or portion thereof after December 14, 2007 shall make such submittal within 120 days of acquiring such occupancy, possession or control, unless the Department agrees to a later date;
- (e) Persons who became Other Persons prior to December 14, 2007 shall make such submittal within 120 days of December 14, 2007, unless the Department agrees to a later date; and
- (f) Persons who became Other Persons after December 14, 2007 shall make such submittal within 120 days of becoming an Other Person, unless the Department agrees to a later date.

(2) Unless otherwise specified by the Department in writing, deadlines re-established pursuant to 310 CMR 40.0570 shall be calculated from the effective date of the Tier Classification submitted to the Department pursuant to 310 CMR 40.0570(1) and the Tier Classification shall expire five years from the effective date. An RP, PRP or Other Person shall not conduct Comprehensive Response Actions pursuant to 310 CMR 40.0800 at a disposal site for which a Tier Classification has expired unless a Tier Classification Extension is obtained pursuant to 310 CMR 40.0560(7).

40.0570: continued

(3) An Eligible Person, Eligible Tenant, or Other Person seeking to re-establish response action deadlines pursuant to 310 CMR 40.0570 must provide with the Tier Classification Submittal a written certification pursuant to 310 CMR 40.0009 stating that:

- (a) such person, in the case of a person asserting to be an Eligible Person, is an owner or operator of the disposal site or a portion thereof who would be liable under M.G.L. c. 21E, § 5(a)(1) solely, did not cause or contribute to the release, and did not own or operate the site at the time of the release;
- (b) such person, in the case of a person asserting to be an Eligible Tenant, is a person who acquired occupancy, possession or control of the disposal site, or a portion thereof, after the release of oil or hazardous material has been reported to the department, did not cause or contribute to the release, and would not otherwise be liable pursuant to M.G.L. c. 21E, § 5(a)(2) through (5);
- (c) such person, in the case of a person asserting to be an Other Person, is not an RP or PRP, with specific facts sufficient to support this statement;
- (d) such person is not, and was not at any time, affiliated with any other person
 - 1. who owned or operated the property from which the release originated, or caused such release, and
 - 2. who is potentially liable under M.G.L. c. 21E for the disposal site through any direct or indirect contractual, corporate or financial relationship other than:
 - a. that established by any instrument creating such person's interest in property within the disposal site boundaries; or
 - b. that established by an instrument wholly unrelated to the disposal site and which would not otherwise render such person potentially liable as a result of the relationship; and
- (e) such person, if a trust, consists of trustees, members and/or beneficiaries, all of whom satisfy 310 CMR 40.0570(3)(a) through (d).

Nothing in 310 CMR 40.0570 shall preclude the Department from considering any other information relative to whether such person is an Eligible Person, Eligible Tenant or Other Person.

(4) Notwithstanding 310 CMR 40.0510(2), any person seeking to re-establish response action deadlines pursuant to 310 CMR 40.0570 by submitting a Tier Classification Submittal may elect to rely upon a Phase I Report, conceptual Phase II Scope of Work, and Tier I or Tier II Classification of the disposal site contained in a Tier Classification Submittal previously submitted to the Department, provided that such previous Tier Classification is consistent with the criteria at 310 CMR 40.0520(2). The new Tier Classification Submittal in such case shall include an LSP Opinion stating that such Submittal relies on such previously provided information.

(5) Provided that 310 CMR 40.0570(1) through (4) are satisfied, and unless at any time following the Department's receipt of a Tier Classification Submittal pursuant to this section the Department establishes an Interim Deadline(s) as described in 310 CMR 40.0167 for conducting response actions, the response action submittal deadlines for Eligible Persons, Eligible Tenants or Other Persons undertaking response actions pursuant to 310 CMR 40.0570 shall be re-established as follows:

- (a) a scope of work for a Phase II - Comprehensive Site Assessment pursuant to 310 CMR 40.0834 prior to the implementation of Phase II field work, unless the Phase II field work had been implemented prior to Tier Classification;
- (b) a Phase II Report within three years of the effective date of the Tier Classification;
- (c) if applicable, a Phase III Remedial Action Plan and a Phase IV Remedy Implementation Plan within four years of the effective date of Tier Classification; and
- (d) a Permanent or Temporary Solution Statement pursuant to 310 CMR 40.1000, or a Remedy Operation Status Submittal pursuant to 310 CMR 40.0893, within five years of the effective date of Tier Classification.

(6) If the person filing the certification pursuant to 310 CMR 40.0570(3) is subsequently determined not to be an Eligible Person, Eligible Tenant or Other Person, or if such certification is determined at any time to be inaccurate or untrue, the original response action deadlines for the site shall supersede the deadlines established pursuant to 310 CMR 40.0570.

(7) In establishing Interim Deadlines for response actions pursuant to 310 CMR 40.0570 and 310 CMR 40.0167, the Department may consider, without limitation, the complexity of the disposal site and the extent to which response actions have already been completed for the disposal site.

40.0570: continued

(8) Nothing in 310 CMR 40.0570 shall limit a person's ability to seek a transfer of a Tier Classification; provided, however, that any response action deadline re-established pursuant to 310 CMR 40.0570 shall apply only to the Eligible Person, Eligible Tenant or Other Person making the submittals set forth in 310 CMR 40.0570, or to any subsequent Eligible Person, Eligible Tenant or Other Person to whom the Tier Classification is transferred who also files the certification described in 310 CMR 40.0570(3) within the applicable deadline specified in 310 CMR 40.0570(1).

40.0583: Department Reclassification of a Tier Classified Disposal Site

(1) General. The Department may, on its own initiative, reclassify a Tier I, Tier ID or Tier II disposal site to a different Tier Classification pursuant to 310 CMR 40.0583.

(2) Effect of Reclassification. A Reclassification made in accordance with 310 CMR 40.0583 shall have the effect of superseding the existing disposal site Tier Classification. Except as otherwise specified by the Department, Reclassification shall not change the effective date of the Tier Classification or the response action deadlines based upon the initial Tier Classification effective date of such disposal site, as detailed in 310 CMR 40.0560(1) and (2).

(3) Criteria. The Department shall consider the Tier Classification Criteria at 310 CMR 40.0520 when reclassifying a Tier Classified disposal site.

40.0584: Participation by the Public, RPs, PRPs, and Other Persons in Department Reclassification

(1) Within seven days of reclassifying a Tier Classified disposal site pursuant to 310 CMR 40.0583, the Department shall provide notice to the public of the Reclassification as follows:

- (a) by publishing a public notice pursuant to 310 CMR 40.1403(2)(b);
- (b) by mail or hand delivery of a copy of the public notice to the Chief Municipal Officer and Board of Health in the community(ies) in which the disposal site is located and in any other community(ies) which the Department believes are likely to be affected by the disposal site;
- (c) by mail or hand delivery of a copy of the public notice to any person the Department reasonably believes:
 - 1. is an RP or a PRP for the disposal site;
 - 2. is an Other Person conducting response actions for the disposal site;
 - 3. holds title to, or an ownership interest in any real property comprising the disposal site of portion thereof or which may be affected by the disposal site and whose name and address is known to the Department at the time the Department decides to re-classify the disposal site; and
 - 4. is the operator of the disposal site, if different from the owner;
- (d) if the disposal site is a Public Involvement Plan (PIP) site, by mail to each person whose name and address appears on the PIP mailing list established pursuant to 310 CMR 40.1400;

(2) Content of Notice. The notice required by 310 CMR 40.0584(1) shall include, but not be limited to, the following information:

- (a) the name and address of the disposal site;
- (b) the DEP Release Tracking Number(s);
- (c) the intended Reclassification category of the disposal site; and
- (d) a statement of the basis for the Reclassification.

40.0585: Right to Request an Adjudicatory Hearing

(1) Any person who is aggrieved by a decision of the Department to reclassify a disposal site pursuant to 310 CMR 40.0583 to a Tier Classification category that is higher than the previous classification may request an adjudicatory hearing before the Department in accordance with 310 CMR 40.0050.

(2) A request for adjudicatory hearing pursuant to 310 CMR 40.0585 shall:

- (a) comply with 310 CMR 40.0050 and 1.00: *Adjudicatory Proceedings*; and
- (b) state the reason(s) the decision to reclassify does not comply with 310 CMR 40.0000.

(3) The adjudicatory hearing shall be limited to the issue of whether the Department's decision to reclassify is in accordance with the criteria set forth in 310 CMR 40.0583(3).

40.0590: Public Involvement

Public involvement activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public involvement requirements relevant to Tier Classification include, but are not limited to, those activities set forth at 310 CMR 40.1403(6).

SUBPART H: COMPREHENSIVE RESPONSE ACTIONS

40.0800: Comprehensive Response Actions

310 CMR 40.0801 through 40.0899, cited collectively as 310 CMR 40.0800, contain the requirements and procedures for conducting Comprehensive Response Actions at disposal sites.

40.0801: Applicability

The procedures, requirements, and standards set forth in 310 CMR 40.0800 apply to all disposal sites for which a Phase I Initial Site Investigation Report has been prepared in accordance with the provisions of 310 CMR 40.0480, and where additional response actions are necessary to assess the disposal site and/or evaluate and implement Comprehensive Remedial Actions to achieve a Permanent or Temporary Solution under 310 CMR 40.1000.

40.0810: General Provisions for Comprehensive Response Actions

(1) Comprehensive Response Actions shall be performed in sequential phases. The phases of Comprehensive Response Actions consist of:

- (a) Phase II - Comprehensive Site Assessment;
- (b) Phase III - Identification and Selection of Comprehensive Remedial Action Alternatives;
- (c) Phase IV - Implementation of the Selected Remedial Action Alternative; and
- (d) Phase V - Operation, Maintenance and/or Monitoring

(2) The results of each phase of Comprehensive Response Actions shall be documented in one or more reports, and submitted to the Department in a manner specified in 310 CMR 40.0800 and within the applicable deadlines specified in 310 CMR 40.0550 and 40.0560. Where appropriate, Comprehensive Response Action reports may be combined and submitted to the Department simultaneously.

(3) Each phase of Comprehensive Response Actions shall build upon the results of previous work, continuing until a Permanent or Temporary Solution as described in 310 CMR 40.1000 is reached for the disposal site. The Department shall not recognize receipt of a Completion Statement for a Phase unless the Completion Statement for the previous Phase has been submitted.

(4) RPs, PRPs and Other Persons conducting Comprehensive Response Actions at disposal sites shall comply with all applicable provisions of 310 CMR 40.0800 and this Contingency Plan.

(5) RPs, PRPs and Other Persons conducting Comprehensive Response Actions shall engage or employ the services of a Licensed Site Professional.

(6) The scope and level of detail of response actions taken under 310 CMR 40.0800 shall be commensurate with the nature and complexity of the specific disposal site. The investigation process described in 310 CMR 40.0800 is intended to allow for varying levels of effort from disposal site to disposal site to avoid the collection of unnecessary information and unwarranted steps that could delay remedial actions. In all cases, the scope and level of detail of response actions taken under 310 CMR 40.0800 shall be sufficient to ensure that the applicable requirements and performance standards of these regulations are met, and that the response actions are conducted in a manner consistent with the Response Action Performance Standard as described in 310 CMR 40.0191.

(7) Technical justification, as described in 310 CMR 40.0193, may be provided to limit or forego one or more of the assessment or evaluation elements of 310 CMR 40.0800. Technical justification may not be used to forego procedural requirements, such as the submission of reports,

40.0810: continued

notices or documents required as part of Comprehensive Response Actions under 310 CMR 40.0800. When technical justification is used to forgo or limit an assessment or evaluation element, a description of the site-specific conditions and characteristics that make the requirement unwarranted and any documentation necessary to support any such justification shall be provided in the applicable submittal to the Department.

(8) If at any time during the conduct of response actions under 310 CMR 40.0800 an Imminent Hazard, sudden release, or other time-critical release or site condition is identified at a disposal site, as described in 310 CMR 40.0412, Immediate Response Actions shall be performed as set forth in 310 CMR 40.0400.

(9) Comprehensive Response Actions shall be conducted in a manner protective of health, safety, public welfare, and the environment, and in accordance with the Health and Safety provisions of 310 CMR 40.0018.

(10) Nothing in 310 CMR 40.0800 shall limit the ability of the Department to initiate, oversee, or order the performance of any response action deemed necessary by the Department to protect health, safety, public welfare, or the environment or impose additional requirements which are consistent with the purposes on M.G.L. c. 21E or 310 CMR 40.0000.

(11) Notwithstanding any provision to the contrary, the Department may at any time require an RP, PRP or Other Person undertaking Comprehensive Response Actions pursuant to 310 CMR 40.0800 to obtain prior Departmental approval of one or more of the response actions or submittals required pursuant to 310 CMR 40.0800. The Department may require such prior approval for submittals or response actions as they relate to the entire disposal site or to some portion thereof.

40.0830: Phase II - Comprehensive Site Assessment

310 CMR 40.0831 through 40.0849, cited collectively as 310 CMR 40.0830, contain the requirements and procedures for conducting Phase II - Comprehensive Site Assessments at disposal sites.

40.0832: General Provisions

(1) A Scope of Work, as described in 310 CMR 40.0834, shall be developed and submitted to the Department in accordance with 310 CMR 40.0510 prior to the initiation of Comprehensive Site Assessment activities at any disposal site that has been classified as Tier I or Tier II under the provisions of 310 CMR 40.0500, unless the Phase II fieldwork has been implemented prior to Tier Classification.

(2) A Phase II Report, as described in 310 CMR 40.0835, shall be prepared to document information obtained as a result of Comprehensive Site Assessment activities and support conclusions and Opinions based upon the findings of the assessment. The Phase II Report shall reference or incorporate elements of the Phase I Report, as appropriate, and may be combined with the Phase III Report described in 310 CMR 40.0850.

40.0833: Performance Standards

(1) A Phase II - Comprehensive Site Assessment shall collect, develop and evaluate sufficient information to support conclusions and Opinions regarding:

- (a) the source, nature, extent, and potential impacts of releases of oil and/or hazardous material;
- (b) the risk of harm posed by the disposal site to health, safety, public welfare and the environment; and
- (c) the need to conduct remedial actions at the disposal site.

(2) The Phase II Report shall thoroughly document, evaluate and discuss the findings and conclusions of the Phase II Comprehensive Site Assessment, and where applicable, provide the basis for identifying and evaluating remedial action alternatives.

40.0834: Conceptual Phase II Scope of Work

- (1) Except as otherwise specified by the Department, Department approval of the conceptual Phase II Scope of Work shall not be required.
- (2) Except as otherwise specified by the Department, the conceptual Phase II Scope of Work shall provide:
 - (a) the general scope and nature of investigative and sampling programs that will be undertaken to characterize the source, extent, and migration pathways of oil and/or hazardous material, and the risk of harm posed to health, safety, public welfare or the environment, based upon the initial Conceptual Site Model developed in Phase I;
 - (b) the name and license number of the LSP engaged or employed by the person conducting the Comprehensive Response Action; and
 - (c) a projected schedule for implementation of the Phase II - Comprehensive Site Assessment.

40.0835: Phase II Report

- (1) A Phase II Report shall be submitted to the Department at the conclusion of Comprehensive Site Assessment activities pursuant to the applicable deadlines set forth in 310 CMR 40.0550 or 40.0560 or at Interim Deadlines specified by the Department.
- (2) A Phase II Report shall present, contain, or append relevant information, data, findings, and Opinions related to the Comprehensive Site Assessment of the disposal site.
- (3) A Phase II Report shall set forth in narrative and, to the extent possible, in maps, graphs, and tables, the disposal site Conceptual Site Model, approach, methods and results of the Phase II - Comprehensive Site Assessment.
- (4) The information and assessment findings outlined in 310 CMR 40.0835(4) shall be provided in the Phase II Report. Depending upon specific site and release conditions, it may be necessary to provide additional information to adequately characterize the disposal site, consistent with the Response Action Performance Standard described in 310 CMR 40.0191, or it may be appropriate to forgo particular assessment or information gathering elements and provide Technical Justification as described in 310 CMR 40.0193.
 - (a) Disposal Site Name, Location and Locus Map, updated, if necessary, from what was provided in the Phase I Report;
 - (b) Detailed Disposal Site Map(s), updated, as necessary, from the base map(s) provided in the Phase I Report, and depicting all investigatory and sampling points relevant to the Comprehensive Site Assessment, the boundaries of the disposal site in plan view, and, as appropriate, the vertical extent of contamination at the disposal site;
 - (c) Disposal Site History, updated, supplemented, or modified if necessary from information provided in the Phase I Report;
 - (d) Site Hydrogeological Characteristics, including details of subsurface investigations conducted at the disposal site, together with a comprehensive description and depiction of site hydrogeologic conditions, including, without limitation:
 1. a description of all relevant geologic, hydrologic, geophysical, and other subsurface investigations and assessments conducted at the disposal site;
 2. documentation related to borings, well construction, and well development, including copies of well drilling logs, within or appended to the Phase II Report; and
 3. a detailed characterization of geologic and hydrogeologic conditions at the disposal site, including:
 - a. groundwater potentiometric surface(s), gradients, flow rates, and flow direction(s);
 - b. soil type(s), stratigraphy, and permeability;
 - c. where appropriate, bedrock type and characteristics, depths and contours; and
 - d. an evaluation and description of the potential for flooding;
 - (e) Environmental Fate and Transport of Oil and/or Hazardous Material, including, as appropriate:

40.0835: continued

1. an evaluation of the environmental fate and transport characteristics of the oil and/or hazardous material identified at the disposal site, including, without limitation, mobility, stability, volatility, persistence and bioaccumulative potential of the oil and/or hazardous material;
 2. identification and characterization of existing and potential migration pathways of the oil and/or hazardous material at and from the disposal site, including, as appropriate, air, soil, groundwater, soil gas, preferential migration pathways such as subsurface utility lines and other subsurface void spaces, surface water, sediment, and food chain pathways; and
 3. an evaluation of the potential for soil, groundwater, or NAPL to be a source of vapors of oil and/or hazardous material to indoor air of occupied structures as described in 310 CMR 40.0900;
- (f) Nature and Extent of Contamination, including a characterization of the nature, and vertical and horizontal extent of oil and/or hazardous material in the environment, including any and all source(s), the presence, distribution, and stability of any NAPL, tabulation of analytical testing results, and, where appropriate, a characterization of background concentrations of oil and/or hazardous material at the disposal site;
- (g) Exposure Assessment, including the identification and characterization of all potential human and environmental receptors that could be impacted by oil and/or hazardous material at or migrating from the disposal site, and, as appropriate, the quantification of exposure of oil and/or hazardous material to these receptors, under current and reasonably foreseeable site conditions, as described in 310 CMR 40.0900;
- (h) Risk Characterization, as set forth in 310 CMR 40.0900, for all appropriate human and environmental receptors identified at and near the disposal site; and
- (i) Conclusions, including a summary of the Phase II Comprehensive Site Assessment findings. The Conclusions section shall provide the disposal site Conceptual Site Model, the reasoning and results used to support the findings, and indicate and support the outcome of the Phase II Investigation as described in 310 CMR 40.0840.

40.0836: Phase II Completion Statement

- (1) A Phase II Completion Statement form, established by the Department for such purposes, shall be appended to and submitted with the final Phase II Report to the Department.
- (2) In cases where the Phase II Report is combined with other Comprehensive Response Action Reports, a Completion Statement form for the combined Reports shall be appended to the documents and submitted to the Department.
- (3) A Completion Statement submitted with a Phase II Report shall include the following:
 - (a) an Opinion from a Licensed Site Professional which states that the Phase II Comprehensive Site Assessment:
 1. conforms with applicable Phase II requirements and any approval conditions specified by the Department;
 2. meets the Phase II performance standards;
 3. does not disclose new or additional information which may affect the site's Tier Classification or permit category without the concurrent filing of an application for a Major Permit Modification; and
 4. specifies the Phase II outcome under 310 CMR 40.0840.
 - (b) the certification of the submittal required by 310 CMR 40.0009.

40.0839: Public Involvement

- (1) Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public Involvement Activities relevant to Phase II specifically include 310 CMR 40.1403(3)(e), and may include, but are not limited to those activities set forth at 40.1403(3)(a) and (f) and 310 CMR 40.1406.
- (2) If the disposal site where the Phase II is conducted is a Public Involvement Plan site, then a Public Involvement Plan that is consistent with 310 CMR 40.1405 shall be implemented.

40.0840: Possible Outcomes

- (1) The following outcomes are possible upon completion of a Phase II Comprehensive Site Assessment:
 - (a) Comprehensive Remedial Actions are necessary at the site to achieve a Permanent or Temporary Solution as described in 310 CMR 40.1000. A Phase III study for the identification, evaluation and selection of Comprehensive Remedial Action Alternatives as described in 310 CMR 40.0850 is necessary to select a remedial action alternative; or
 - (b) the requirements of a Permanent Solution under 310 CMR 40.1000 have been met, and a Permanent Solution Statement supported by information provided in the Phase II report shall be submitted to the Department.

40.0850: Phase III - Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives

310 CMR 40.0851 through 40.0869, cited collectively as 310 CMR 40.0850, contain the requirements and procedures for conducting Phase III Comprehensive Response Actions at disposal sites.

40.0852: General Provisions

- (1) A Phase III evaluation shall be conducted for any disposal site for which a Phase II Comprehensive Site Assessment has been completed and a Permanent Solution in accordance with 310 CMR 40.1000 has not yet been achieved.
- (2) A Phase III evaluation shall result in the selection of a remedial action alternative which is a likely Permanent Solution, except where it is demonstrated pursuant to 310 CMR 40.0850 that a Permanent Solution is not feasible or that the implementation of a Temporary Solution would be more cost-effective and timely than the implementation of a feasible Permanent Solution.
- (3) Except for any Temporary Solution achieved after providing a Downgradient Property Status Submittal to the Department in accordance with 310 CMR 40.0180, a Phase III evaluation shall be conducted before any Temporary Solution pursuant to 310 CMR 40.1000 may be achieved at a disposal site.
- (4) The feasibility of achieving or approaching background levels of oil and hazardous material shall be evaluated in accordance with 310 CMR 40.0860 for all disposal sites where remedial actions are or have been taken to achieve a Permanent Solution and background levels are not achieved.
- (5) The results and conclusions of the Phase III evaluation shall be documented in a Remedial Action Plan, as described in 310 CMR 40.0861. Where appropriate, the Remedial Action Plan may be provided in or appended to the Phase II Comprehensive Site Assessment Report described in 310 CMR 40.0835.

40.0853: Performance Standards

- (1) A Phase III evaluation shall result in:
 - (a) the identification and evaluation of remedial action alternatives which are reasonably likely to achieve a level of No Significant Risk considering the oil and hazardous material present, media contaminated, and site characteristics; and
 - (b) the recommendation of a remedial action alternative that is a Permanent or Temporary Solution, where a Permanent Solution includes measures that reduce, to the extent feasible, the concentrations of oil and hazardous material in the environment to levels that achieve or approach background.

40.0853: continued

- (2) A Phase III Remedial Action Plan shall describe and document the information, reasoning and results used to identify and evaluate remedial action alternatives in sufficient detail to support the selection of the proposed remedial action alternative.

40.0855: Identification and Evaluation of Remedial Action Alternatives

- (1) An identification and evaluation of remedial action alternatives shall be undertaken for all disposal sites where a Phase III evaluation is required.
- (2) The identification and evaluation of remedial action alternatives shall include:
 - (a) an initial screening to identify those remedial action alternatives that are reasonably likely to be feasible and achieve a level of No Significant Risk; and, where necessary
 - (b) a detailed evaluation of the remedial action alternatives identified by the initial screening to ascertain which alternatives will meet the performance standards and requirements set forth in 310 CMR 40.0850, 40.0900 and 40.1000, and whether these alternatives constitute Permanent or Temporary Solutions.
- (3) The identification and evaluation of remedial action alternatives:
 - (a) shall be based on information gathered and analyzed as part of previous assessment and remedial actions, and during the Phase III evaluation, and updated Conceptual Site Model;
 - (b) may involve bench-scale tests or pilot studies as part of an evaluation of the effectiveness of an alternative; and
 - (c) may incorporate innovative technologies where appropriate.

40.0856: Initial Screening of Likely Remedial Action Alternatives

- (1) An initial screening of remedial technologies shall be conducted to identify remedial action alternatives for further evaluation which are reasonably likely to be feasible, based on the oil and hazardous material present, media contaminated, and site characteristics. For the purposes of 310 CMR 40.0856, remedial action alternatives are reasonably likely to be feasible if:
 - (a) the technologies to be employed by the alternative are reasonably likely to achieve a Permanent or Temporary Solution; and
 - (b) individuals with the expertise needed to effectively implement available solutions would be available, regardless of arrangements for securing their services.

40.0857: Detailed Evaluation of Remedial Action Alternatives

- (1) Except as provided in 310 CMR 40.0857(2), a detailed evaluation of the remedial action alternatives identified by the initial screening described in 310 CMR 40.0856 shall be conducted to provide the basis for the selection of the remedial action alternative. The detailed evaluation shall evaluate and compare different remedial alternatives using the criteria described in 310 CMR 40.0858.
- (2) A detailed evaluation is not required in those cases where a remedial action alternative identified during the initial screening:
 - (a) is proven to be effective in remediating the types of oil and hazardous material present at the disposal site, based upon experience gained at other disposal sites with similar site and contaminant conditions;
 - (b) results in the reuse, recycling, destruction, detoxification, treatment or any combination thereof of the oil and hazardous material present at the disposal site;
 - (c) can be implemented in a manner that will not pose a significant risk of harm to health, safety, public welfare or the environment, as described in 310 CMR 40.0900; and
 - (d) is likely to result in the reduction and/or control of oil and/or hazardous material at the disposal site to a degree and in a manner such that the requirements of a Permanent Solution as set forth in 310 CMR 40.1000 will be met.

40.0858: Detailed Evaluation Criteria

Except as provided in 310 CMR 40.0857(2), the remedial action alternatives identified by the initial screening shall be evaluated using the following criteria:

40.0858: continued

- (1) The comparative effectiveness of the alternatives in terms of:
 - (a) achieving a Permanent or Temporary Solution under 310 CMR 40.1000;
 - (b) reusing, recycling, destroying, detoxifying, or treating oil and hazardous material at the disposal site; and
 - (c) reducing levels of untreated oil and hazardous material at the site to concentrations that achieve or approach background.
- (2) The comparative short-term and long-term reliability of the alternatives, including:
 - (a) the degree of certainty that the alternative will be successful; and
 - (b) the effectiveness of any measures required to manage residues or remaining wastes or control emissions or discharges to the environment.
- (3) The comparative difficulty in implementing each alternative in terms of:
 - (a) technical complexity of the alternative;
 - (b) where applicable, the integration of the alternative with existing facility operations and other current or potential remedial actions;
 - (c) any necessary monitoring, operations, maintenance or site access requirements or limitations;
 - (d) the availability of necessary services, materials, equipment, or specialists;
 - (e) the availability, capacity and location of necessary off-site treatment, storage and disposal facilities; and
 - (f) whether the alternative meets regulatory requirements for any likely approvals, permits or licenses required by the Department, or other state, federal or local agencies.
- (4) The comparative costs of the alternatives, including:
 - (a) costs of implementing the alternative, including without limitation: design, construction, equipment, site preparation, labor, permits, disposal, operation, maintenance and monitoring costs;
 - (b) costs of environmental restoration, potential damages to natural resources, including consideration of impacts to surface waters, wetlands, wildlife, fish and shellfish habitat; and
 - (c) the relative total consumption of energy resources in the implementation and operation of the alternatives, and externalities associated with the use of those resources, including greenhouse gases and other air pollutants.
- (5) The comparative risks of the alternatives including without limitation:
 - (a) the short-term on-site and off-site risks posed during implementation of the alternative associated with any excavation, transport, disposal, containment, construction, operation or maintenance activities, or discharges to the environment from remedial systems;
 - (b) on-site and off-site risks posed over the period of time required for the alternative to attain applicable remedial standards, including risks associated with ongoing transport, disposal, containment, operation or maintenance activities, or discharges from remedial systems; and
 - (c) the potential risk of harm to health, safety, public welfare or the environment posed to human or environmental receptors by any oil and/or hazardous material remaining at the disposal site after the completion of the remedial action.
- (6) The comparative benefits of the alternatives including without limitation:
 - (a) the benefit of restoring natural resources;
 - (b) providing for the productive reuse of the site;
 - (c) the avoided costs of relocating people, businesses, or providing alternative water supplies; and
 - (d) the avoided lost value of the site.
- (7) The comparative timeliness of the alternatives in terms of eliminating any uncontrolled sources of oil and/or hazardous material and achieving of a level of No Significant Risk as described in 310 CMR 40.0900.
- (8) The relative effect of the alternatives upon non-pecuniary interests, such as aesthetic values.

40.0859: Selection of Remedial Action Alternative

- (1) Except as provided in 310 CMR 40.0857(2), remedial action alternatives shall be selected based on the detailed evaluation criteria contained in 310 CMR 40.0858 and in compliance with the provisions set forth in 310 CMR 40.0850, 40.0900 and 40.1000.
- (2) A remedial action alternative which is a Permanent Solution shall be selected if a feasible Permanent Solution has been identified and its implementation is found to be more cost-effective and timely than would be the implementation of a Temporary Solution. If there is no such feasible Permanent Solution, a Temporary Solution for the elimination of substantial hazard shall be selected and implemented and a plan shall be prepared pursuant to 310 40.0861(2)(i) for the identification and development of a Permanent Solution.
- (3) Any selected Permanent Solution shall, to the extent feasible, reduce the concentrations of oil and hazardous material in the environment to levels that achieve or approach background.
- (4) An Engineered Barrier, cap or other remedial action alternative that relies upon on-site disposal, isolation, or containment of oil and/or hazardous material shall not be selected unless and until a Phase III evaluation performed pursuant to the provisions of 310 CMR 40.0850 demonstrates the lack of a feasible alternative.
- (5) Where a Permanent Solution for the entire disposal site is not selected as the remedial action alternative, the evaluation of feasible remedial action alternatives shall consider remedies to reduce exposure to oil and/or hazardous materials by human and/or ecological receptors and impacts to drinking water source areas at a portion or portions of the disposal site to achieve or approach a Permanent Solution at such portion(s) of the disposal site.

40.0860: Feasibility Evaluations

- (1) The criteria described in 310 CMR 40.0860 apply to:
 - (a) evaluating the feasibility of implementing a Permanent Solution;
 - (b) evaluating the feasibility of reducing the concentrations of oil and hazardous material in the environment to levels that achieve or approach Background;
 - (c) evaluating the feasibility of reducing the concentrations of oil and hazardous material in soil at a disposal site to levels at or below applicable soil Upper Concentrations Limits;
 - (d) evaluating the feasibility of eliminating, preventing or mitigating Critical Exposure Pathway(s); and
 - (e) evaluating the feasibility of eliminating or controlling each Source of OHM Contamination, controlling migration of OHM, and removing NAPL at a disposal site in support of a Permanent or Temporary Solution pursuant to 310 CMR 40.1003(5) through (7), respectively.
- (2) An evaluation of the feasibility of implementing a Permanent Solution shall be performed in all cases where the selected Comprehensive Remedial Alternative will achieve a Temporary Solution.
- (3) An evaluation of the feasibility of reducing the concentrations of oil and hazardous material in the environment at the disposal site or a portion of the disposal site to levels that achieve or approach Background shall be conducted in all cases where the Comprehensive Remedial Alternative is selected to achieve a Permanent Solution, unless the Permanent Solution selected is designed to achieve and achieves Background.
- (4) An evaluation of the feasibility of reducing the concentrations of oil and hazardous material in soil at the disposal site to levels at or below the applicable soil Upper Concentration Limits shall be conducted before a Comprehensive Remedial Alternative is selected as a Permanent Solution that would leave oil and/or hazardous material in soil at concentrations above the soil Upper Concentration Limits at a depth greater than 15 feet below the ground surface or beneath an Engineered Barrier pursuant to 310 CMR 40.0996.
- (5) A Comprehensive Remedial Alternative that would achieve a Permanent Solution and other response actions listed in 310 CMR 40.0860(1) shall be considered feasible unless:
 - (a) the alternative is not technologically feasible, as specified in 310 CMR 40.0860(6);
 - (b) the costs of conducting, or the risks resulting from the alternative would not be justified by the benefits, considering such factors as potential damage to human health or the environment, cost of environmental restoration, long term operation and maintenance costs, and non-

pecuniary values as determined by the benefit-cost analysis in 310 CMR 40.0860(7);

40.0860: continued

- (c) individuals with the expertise needed to effectively implement the alternative would not be available, regardless of arrangements for securing their services;
- (d) the alternative would necessitate land disposal other than at the site itself and no off-site facility is available in the Commonwealth or in other states that is in full compliance with all applicable federal and state regulatory requirements; or
- (e) an alternative is selected for a portion of a disposal site for which the source of the oil and/or hazardous material is not located thereon, and the elimination or control of such source cannot currently be achieved by the party conducting the response actions at that portion of the disposal site. In such instances, a Temporary Solution shall be implemented for that portion of the disposal site to which the selected alternative applies.

(6) Technological Feasibility. A Comprehensive Remedial Alternative and other response actions listed in 310 CMR 40.0860(1) shall be considered technologically feasible unless:

- (a) existing technology or reasonable modifications of existing technology cannot remediate the oil and hazardous material present at the disposal site to the extent necessary to attain a level of No Significant Risk or, when required to be considered, to levels that approach or achieve Background;
- (b) the reliability of the identified alternative has not been sufficiently proven at other sites or through pilot tests and a substantial uncertainty exists as to whether it will effectively reduce risk; or
- (c) the identified alternative cannot comply with or be modified to comply with applicable regulatory requirements.

(7) Benefit-cost Analysis. The benefits of implementing Comprehensive Remedial Alternatives to achieve a Permanent Solution or Temporary Solution or of implementing other response actions listed in 310 CMR 40.0860(1) shall justify the related costs unless:

- (a) the incremental cost of conducting the Comprehensive Remedial Alternative or other response action is substantial and disproportionate to the incremental benefit of risk reduction, environmental restoration, and monetary and non-pecuniary values;
- (b) the risk of harm to health, safety, public welfare or the environment posed by the implementation of the alternative cannot be adequately controlled; or
- (c) the alternative would destroy more than 5000 square feet of wetlands or wildlife habitat, or would otherwise result in a substantial deleterious impact to the environment and:
 1. other feasible Temporary or Permanent Solutions exist;
 2. the oil and/or hazardous materials, if any, that have come to be located in such resources do not bio-accumulate and are not likely to migrate; and
 3. the damage to such resources resulting from the implementation of the alternative would be permanent and irreparable.

40.0861: Remedial Action Plan

(1) The results of a Phase III evaluation shall be documented in a Remedial Action Plan. The Remedial Action Plan shall support the selection of the Comprehensive Remedial Alternative by providing information of sufficient detail on the process by which the recommended Comprehensive Remedial Alternative was developed and evaluated.

(2) A Remedial Action Plan shall contain:

- (a) a narrative of the disposal site Conceptual Site Model, including any necessary updates, incorporating as appropriate, relevant maps, graphs, and data tables;
- (b) a description of all remedial alternatives initially identified and the results of the initial screening;
- (c) where a detailed evaluation is required, a discussion of how the remedial alternatives remaining after initial screening compared with respect to each of the detailed criteria described in 310 CMR 40.0858, and how the criteria were weighted in the evaluation;
- (d) justification for the selection of the proposed Comprehensive Remedial Alternative with respect to its anticipated effectiveness and relative to all other evaluated alternatives, including a discussion of the results of any bench-scale tests or pilot studies performed as part of an evaluation of the effectiveness of an alternative;
- (e) where required, the results of the evaluation under 310 CMR 40.0860 of whether the implementation of a Permanent or Temporary Solution is feasible;

40.0861: continued

- (f) if a Permanent Solution is selected as the Comprehensive Remedial Alternative:
 - 1. a discussion of how the alternative is likely to achieve a level of No Significant Risk and the projected timeframe, based on available information, for meeting the requirements for a Permanent Solution as specified in 310 CMR 40.1000;
 - 2. the results of the evaluation under 310 CMR 40.0860 of the feasibility of reducing the concentrations of oil and hazardous material in the environment at the disposal site to levels that achieve or approach background, unless the Remedial Action Plan otherwise includes a demonstration that the selected alternative is designed to achieve background;
- (g) if a Temporary Solution is selected as the Comprehensive Remedial Alternative, a discussion of how the alternative is likely to eliminate any substantial hazards posed by the disposal site until a Permanent Solution is implemented and a plan and projected timeframe, based on available information, for meeting and maintaining the requirements for a Temporary Solution as specified in 310 CMR 40.1000, and a discussion of and support for the conclusion as to whether achievement of a Permanent Solution is currently feasible;
- (h) if a Temporary Solution is selected as the Comprehensive Remedial Alternative and a Permanent Solution is not currently feasible, except for those Temporary Solutions achieved after a Downgradient Property Status Submittal has been provided to the Department in accordance with 310 CMR 40.0180, a detailed description that identifies:
 - 1. any factor(s) that make the achievement of a Permanent Solution not currently feasible and any change in circumstances or steps that may be taken that are likely to enable the achievement of a Permanent Solution in the future; and
 - 2. definitive and enterprising steps to identify and develop an alternative that is a likely Permanent Solution and a schedule for the implementation of such steps that may include, but are not limited to:
 - a. performing pilot tests or bench-scale studies;
 - b. investigating innovative ways to reduce the costs or the risks of implementing a specific alternative;
 - c. developing new technologies; and
- (i) a projected schedule for implementation of Phase IV activities, if applicable, pursuant to 310 CMR 40.0870 consistent with the projected timeframe for achievement of a Permanent or Temporary Solution, as applicable.

40.0862: Phase III Completion Statement

- (1) A Phase III Completion Statement form, established by the Department for such purposes, shall be appended to and submitted with the Remedial Action Plan to the Department.
- (2) In cases where the Phase III Remedial Action Plan is combined with other Comprehensive Response Action Reports, a Completion Statement form for the combined Reports shall be appended to the documents and submitted to the Department.
- (3) A Completion Statement submitted with a Phase III Report shall include the following:
 - (a) an Opinion from a Licensed Site Professional indicating whether the selected Comprehensive Remedial Alternative is likely to achieve a Permanent or Temporary Solution, and stating that the Phase III conforms with applicable Phase III performance standards and requirements and any approval conditions specified by the Department; and
 - (b) a certification of the submittal required by 310 CMR 40.0009.

40.0863: Public Involvement

- (1) Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public Involvement Activities relevant to Phase III specifically include, but are not limited to, those activities set forth in 310 CMR 40.1403(3)(e).
- (2) If the disposal site where the Phase III is conducted is a Public Involvement Plan site, then a Public Involvement Plan that is consistent with 310 CMR 40.1405 shall be implemented.

40.0864: Possible Outcome

Upon completion of Phase III, the selected feasible Comprehensive Remedial Alternative shall be developed and implemented pursuant to Phase IV requirements under 310 CMR 40.0870.

40.0870: Phase IV Implementation of the Selected Comprehensive Remedial Alternative

310 CMR 40.0871 through 40.0889, cited collectively as 310 CMR 40.0870, contain the requirements and procedures for conducting Phase IV Comprehensive Remedial Response Actions at disposal sites.

40.0871: General Provisions

- (1) Phase IV contains requirements for the design, construction, and implementation of the Comprehensive Remedial Action Alternative selected as a result of the Phase III evaluation under 310 CMR 40.0850.
- (2) Phase IV activities shall include, without limitation, the following:
 - (a) preparation of a Remedy Implementation Plan (RIP) as set forth in 310 CMR 40.0874;
 - (b) documentation of the construction of the Comprehensive Remedial Alternative as described in 310 CMR 40.0875; and
 - (c) implementation and final inspection of the Comprehensive Remedial Alternative.
- (3) Where appropriate, reports and plans prepared required in Phase IV may be combined.
- (4) RPs, PRPs and Other Persons conducting Phase IV activities shall ensure that persons with the appropriate level of training, supervision and applicable licenses or certifications are engaged in the design, construction, operation and maintenance of the Comprehensive Remedial Alternative.
- (5) All federal, state and local permits, licenses or approvals and any agreements necessary for construction and operation of the Comprehensive Remedial Alternative shall be secured as early in Phase IV as possible in order to avoid delays in implementing the remedial action.
- (6) The Comprehensive Remedial Alternative shall not be implemented until a complete RIP, as described in 310 CMR 40.0874, has been received by the Department. Unless otherwise specified by the Department in writing, or pursuant to 310 CMR 40.0046(3) for plans that include the Application of Remedial Additives Near Sensitive Receptors, approval from the Department shall not be required to implement the Comprehensive Remedial Alternative. Any person implementing the Comprehensive Remedial Alternative shall conform with the proposals and specifications contained in the RIP and any conditions specified by the Department. Significant modifications to the RIP shall be submitted to the Department prior to implementation of the modifications.

40.0872: Performance Standards

- (1) The Phase IV Implementation of the Comprehensive Remedial Alternative selected in Phase III and documented in the Phase III Remedial Action Plan shall:
 - (a) ensure that the information, plans and reports related to the design, construction, and implementation of the selected remedial alternative are based upon an updated Conceptual Site Model and are sufficiently developed and documented to support the implementation of the Comprehensive Remedial Alternative;
 - (b) ensure that following initial implementation, the Comprehensive Remedial Alternative meets design and performance specifications;
 - (c) meet the Response Action Performance Standard for the design, construction, and implementation of the Comprehensive Remedial Action, as described in 310 CMR 40.0191; and
 - (d) conform with all applicable requirements and deadlines set forth in 310 CMR 40.0000.

40.0874: Remedy Implementation Plan (RIP)

- (1) A Remedy Implementation Plan shall be developed for the selected Comprehensive Remedial Alternative.
- (2) Technical justification, as specified in 310 CMR 40.0193, may be used to limit or forgo assessment or evaluation elements of the RIP. When technical justification is used, a description of the site-specific conditions and characteristics which make a requirement unwarranted shall be provided in the applicable section of the RIP.

40.0874: continued

(3) A RIP shall include, without limitation, the following elements:

- (a) a list of relevant contacts, including:
 - 1. names, addresses, and telephone numbers of the RP, PRP or Other Persons responsible for submittal of the RIP;
 - 2. name, address, and telephone number of the LSP; and
 - 3. identification of those persons who will own, operate and/or maintain the selected Comprehensive Remedial Alternative during and following construction;
- (b) Engineering Design. The RIP shall document engineering concepts and design criteria to be used for the design and construction of the Comprehensive Remedial Alternative including as appropriate and without limitation:
 - 1. goals of the remedial action, including performance requirements of the remedial systems, the requirements for achieving a Permanent or Temporary Solution (whichever is applicable) under 310 CMR 40.1000 and the projected timeframe, based on available information, for achieving such Permanent or Temporary Solution;
 - 2. any significant changes in or new information related to disposal site conditions which were not included in previous submittals, together with a narrative of the disposal site Conceptual Site Model, including any necessary updates, incorporating as appropriate, relevant maps, graphs, and data tables;
 - 3. disposal site maps showing existing disposal site features and proposed locations of activities associated with the remedial action;
 - 4. a description of the characteristics, quantity, and location of environmental media or materials to be treated or otherwise managed;
 - 5. a description and conceptual plan of the activities, treatment units, facilities, and processes to be used to implement the selected remedial action alternative including flow diagrams;
 - 6. relevant design and operation parameters, including:
 - a. design criteria, assumptions and calculations;
 - b. expected treatment, destruction, immobilization, or containment efficiencies and documentation of how that degree of effectiveness was determined; and
 - c. demonstration that the selected Comprehensive Remedial Alternative will achieve the identified remedial goals (may include information from pilot or treatability tests, similar operations, or scientific literature);
 - 7. design features for control of oil and hazardous material spills and accidental discharge or system malfunction, including without limitation: containment structures, leak detection devices, run-off controls, pressure valves, bypass systems, or safety cutoffs;
 - 8. a description of the methods for management or disposal of any treatment residual, contaminated soils, and other waste materials containing oil and/or hazardous material generated as a result of the selected Comprehensive Remedial Alternative;
 - 9. identification of site-specific characteristics which may affect or be affected by the design, construction, or operation of the selected Comprehensive Remedial Alternative, including, but not limited to:
 - a. relationship of the selected Comprehensive Remedial Alternative to existing disposal site activities or operations;
 - b. drainage features;
 - c. natural resource areas, local planning and development issues; and
 - d. soil characteristics and groundwater characteristics;
 - 10. a discussion of measures to be incorporated into the design, construction and operation of the selected Comprehensive Remedial Alternative to avoid any deleterious impact on environmental receptors and natural resource areas (including any surface water or wetland), or where it is infeasible to avoid any such impact, a discussion of measures to minimize or mitigate any impact; and
 - 11. a general description of inspections and monitoring which will be performed to ensure adequate construction and performance of the selected Comprehensive Remedial Alternative;
- (c) Construction Plans and Specifications. Construction plans shall be prepared in conformance with appropriate engineering and construction standards and practices and regulations applicable to construction plans and activities. Information on the proposed plans for the construction of the selected Comprehensive Remedial Alternative shall be provided in the RIP and include, without limitation, the following:

40.0874: continued

1. as appropriate, plans, material specifications, and procedures related to the construction of the selected Comprehensive Remedial Alternative; and
 2. a schedule for the design and construction of the Comprehensive Remedial Alternative;
- (d) Operation, Maintenance and/or Monitoring (OMM). In cases where the Comprehensive Remedial Alternative for the disposal site requires operation, maintenance and/or monitoring activities to ensure the effective performance and integrity of the Comprehensive Remedial Alternative and/or the achievement of remedial goals identified pursuant to 310 CMR 40.0874(3)(b)1., an Operation, Maintenance and/or Monitoring plan shall be developed and included in the RIP. The OMM plan shall include measures necessary to assure effective operations of the Comprehensive Remedial Action under both normal and emergency conditions. The OMM plan shall include, as appropriate and without limitation, the following:
1. name and telephone number of the person(s) conducting operation, maintenance and/or monitoring activities;
 2. general operating procedures, including start-up, testing, maintenance, shutdown, and emergency or contingency procedures; and
 3. specification of the type, frequency and duration of monitoring, and testing or inspections to ensure and confirm that the remedial action is performing as designed. The frequency of monitoring and/or inspections shall be consistent with the Response Action Performance Standard, as described in 310 CMR 40.0191, and in conformance with applicable provisions of 310 CMR 40.0000, including 310 CMR 40.0040 through 40.0049, and the terms of applicable permits, approvals or licenses;
- (e) a health and safety plan, to be followed during the construction and implementation of the selected Comprehensive Remedial Alternative, that adheres to the procedures described in 310 CMR 40.0018;
- (f) a list of any necessary federal, state or local permits, licenses and/or approvals required for the design, construction and/or operation of the selected remedial action alternative and a description of any additional information needed to meet the requirements thereof; and
- (g) a discussion of any property access issues which are relevant to the implementation of the selected Comprehensive Remedial Alternative, and a plan and timetable for resolving property access problems.

40.0875: As-built Construction Report

- (1) As-built Construction plans shall be prepared and submitted to the Department in an As-built Construction Report for:
 - (a) any disposal site where an Engineered Barrier, cap or other on-site system for the containment and/or physical immobilization of oil and/or hazardous material is constructed as part of the Remedial Action Alternative; or
 - (b) any disposal site where the Comprehensive Remedial Alternative as actually constructed varies significantly from the description of the alternative provided in the RIP under 310 CMR 40.0874.
- (2) The As-built Construction Report shall include, without limitation, the following information:
 - (a) construction activities conducted, and techniques and materials used;
 - (b) tests and measurements performed;
 - (c) any significant modifications of the design or construction of the selected Comprehensive Remedial Alternative as described under 310 CMR 40.0874(3)(c) of the RIP; and
 - (d) as built drawings.
- (3) As-built plans for the Comprehensive Remedial Action shall be prepared in conformance with appropriate engineering and construction standards and practices, and regulations applicable to construction plans and activities.

40.0877: Phase IV Status Report and Remedial Monitoring Report

(1) For a disposal site where Active Operation and Maintenance of a remedial action is conducted prior to the submittal of a Final Inspection Report and Phase IV Completion Statement to test and monitor the initial implementation and operation of the Comprehensive Remedial Alternative, a Remedial Monitoring Report shall be submitted to the Department on a form established by the Department for such purposes at the following frequency:

- (a) when the selected Comprehensive Remedial Alternative involves Active Operation and Maintenance to address an Imminent Hazard or Condition of Substantial Release Migration, monthly; or
- (b) when the selected Comprehensive Remedial Alternative involves Active Operation and Maintenance to address conditions that do not pose an Imminent Hazard or Condition of Substantial Release Migration, every six months.

(2) For a disposal site where Active Operation and Maintenance of the selected Comprehensive Remedial Alternative is conducted prior to the submittal of a Final Inspection Report and Phase IV Completion Statement to test and monitor the initial implementation and operation of the Comprehensive Remedial Alternative, a Phase IV Status Report, as described in 310 CMR 40.0877(4) shall be submitted with the initial Remedial Monitoring Report and every six months thereafter.

(3) Unless otherwise specified by the Department, for a disposal site where Active Operation and Maintenance of the selected Comprehensive Remedial Alternative is not conducted prior to the submittal of a Final Inspection Report and Phase IV Completion Statement, a Phase IV Status Report shall not be required but may be submitted at the discretion of the person(s) conducting response actions.

(4) A Phase IV Status Report shall include, as appropriate, the following:

- (a) a description of the type and frequency of operation, maintenance and/or monitoring activities conducted;
- (b) a description of any significant modifications of the operation, maintenance and/or monitoring program made since the RIP or any preceding Phase IV Status Report;
- (c) an evaluation of the performance of the Comprehensive Remedial Alternative during the reporting period, including whether the initial implementation and operation of the Comprehensive Remedial Action indicates that the remedy is performing as designed to achieve the remedial goals of the Phase IV Remedy Implementation Plan described in 310 CMR 40.0874(3);
- (d) a description of any conditions or problems noted during the period that are or may be affecting the performance of the Comprehensive Remedial Action;
- (e) a description of any measures taken to correct conditions which are affecting the performance of the Comprehensive Remedial Action; and
- (f) the name, license number, signature and seal of the LSP.

(5) After the submittal of a Phase IV Completion Statement, the person(s) conducting the Comprehensive Remedial Action shall submit Status and Remedial Monitoring Reports for the continued Active Operation and Maintenance of a remedial action initiated during Phase IV pursuant to the requirements of 310 CMR 40.0892 or 40.0897 and 40.0898, as applicable.

40.0878: Final Inspection Report

(1) Upon completion of construction activities and initial implementation of the selected Comprehensive Remedial Alternative, a final inspection of the Comprehensive Remedial Action shall be conducted by the Licensed Site Professional providing the Opinion under 310 CMR 40.0879(2) regarding the construction and implementation of the selected Comprehensive Remedial Alternative.

(2) The final inspection shall be performed to ensure that:

- (a) the selected Comprehensive Remedial Alternative has been constructed in accordance with construction plans under 310 CMR 40.0874(3)(c) or appropriate modifications to such plans; and

40.0878: continued

(b) following initial implementation and operation and any modifications or adjustments necessary to optimize the performance of remedial systems, the selected Comprehensive Remedial Alternative is meeting projected design standards.

(3) A description of the final inspection activities and findings shall be provided in a Final Inspection Report and submitted to the Department along with the Phase IV Completion Statement described under 310 CMR 40.0879 and any other Phase IV documents that have not been submitted to the Department by the time the Phase IV Completion Statement is filed. A list of any federal, state or local permits, licenses and/or approvals obtained related to the design, construction and/or operation of the selected remedial action alternative shall be included in the Final Inspection Report.

40.0879: Phase IV Completion Statement

(1) A Phase IV Completion Statement form, established by the Department for such purposes, shall be appended to and submitted with the Final Inspection Report to the Department.

(2) A Completion Statement form submitted with a Final Inspection Report shall include the following:

- (a) an Opinion from a Licensed Site Professional as to whether the construction and implementation of the selected Comprehensive Remedial Alternative has been completed in accordance with applicable requirements of 310 CMR 40.0870, and the Phase IV performance standards as described in 310 CMR 40.0872 have been met;
- (b) a certification of the submittal required by 310 CMR 40.0009; and
- (c) an indication as to whether any activities under Phase V will be conducted as part of the implementation of the selected Comprehensive Remedial Alternative.

(3) Upon receipt of a Phase IV Completion Statement in accordance with 310 CMR 40.0879 which indicates that any Phase V activities pursuant to 310 CMR 40.0890 are required at a disposal site, the Department shall suspend the further assessment of Tier I or Tier II Annual Compliance Assurance Fees, whichever are applicable, and shall assess a Phase V - Operation Maintenance and/or Monitoring Compliance Assurance Fee pursuant to 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.

40.0880: Public Involvement

(1) Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public Involvement Activities relevant to Phase IV specifically include 310 CMR 40.1403(3)(a) and (e).

(2) If the disposal site where the Phase IV is conducted is a Public Involvement Plan site, then a Public Involvement Plan that is consistent with 310 CMR 40.1405 shall be implemented.

40.0881: Possible Outcomes

Upon completion of Phase IV activities the following outcomes are possible:

- (a) the requirements of a Permanent or Temporary Solution under 310 CMR 40.1000 have been met. A Permanent or Temporary Solution Statement shall be submitted to the Department;
- (b) a Permanent or Temporary Solution has not yet been achieved, and operation, maintenance and/or monitoring of the Comprehensive Remedial Action (including Remedy Operation Status) is necessary to achieve a Permanent or Temporary Solution under 310 CMR 40.1000; or
- (c) the requirements of a Temporary Solution under 310 CMR 40.1000 have been met, and Post-temporary Solution operation, maintenance and/or monitoring of the remedial action under 310 CMR 40.0897 and 40.0898 is necessary to ensure that the conditions upon which the Temporary Solution is based are maintained and/or that further progress toward a Permanent Solution is made.

40.0890: Operation, Maintenance and/or Monitoring of Comprehensive Response Actions

310 CMR 40.0891 through 40.0899, cited collectively as 310 CMR 40.0890, contain the requirements and procedures for conducting Phase V and Post-temporary Solution Operation, Maintenance and/or Monitoring activities at disposal sites.

40.0891: Phase V General Provisions

- (1) The provisions of Phase V shall apply to disposal sites where Phase IV response actions have been completed and operation, maintenance and/or monitoring of the Comprehensive Remedial Action is necessary to achieve a Permanent or Temporary Solution under 310 CMR 40.1000.
- (2) Phase V activities may include the following:
 - (a) operation and maintenance of the Comprehensive Remedial Action;
 - (b) monitoring to evaluate the performance of the remedial systems and whether the Comprehensive Remedial Action is meeting its design specifications;
 - (c) monitoring of conditions at the disposal site to evaluate the effectiveness of the Comprehensive Remedial Action in reducing, treating and/or containing oil and/or hazardous material;
 - (d) efforts to correct problems if performance monitoring indicates that the Comprehensive Remedial Action is not performing as designed;and/or
 - (e) documentation and submission of the results of operation, maintenance and monitoring activities to the Department, as described in 310 CMR 40.0892.
- (3) Operation, maintenance and/or monitoring activities shall follow the OMM plan developed as part of the Remedy Implementation Plan in Phase IV under 310 CMR 40.0874(3)(d). The OMM plan shall be revised and updated as warranted in response to changes in site conditions, updates to the Conceptual Site Model, modifications to remedial systems, mitigation measures or programs, or as otherwise necessary to ensure that the Comprehensive Remedial Action achieves design standards and remedial goals identified in the RIP pursuant to 310 CMR 40.0874(3)(b)1.
- (4) Operation, maintenance and/or monitoring activities shall be documented and submitted to the Department as described in 310 CMR 40.0892.
- (5) Operation, maintenance and/or monitoring activities shall be performed at a frequency which is sufficient to ensure the effective performance and the integrity of the remedial action, consistent with the Response Action Performance Standard as described in 310 CMR 40.0191, and in conformance with the terms of applicable permits, approvals, licenses or provisions in 310 CMR 40.0000.
- (6) Phase V operation, maintenance and/or monitoring activities shall be documented and submitted to the Department in Phase V Status Reports, and when required, Remedial Monitoring Reports in accordance with the requirements in 310 CMR 40.0892.

40.0892: Phase V Status and Remedial Monitoring Reports

- (1) At a minimum, at a disposal site where Phase V operation, maintenance and/or monitoring of Comprehensive Response Actions is being conducted, a Phase V Status Report as described in 310 CMR 40.0892(2) shall be submitted to the Department six months from the receipt by the Department of the Phase IV Completion Statement and every six months thereafter for the duration of the operation of the remedy. Each Status Report shall document activities occurring over the period of time since the previously submitted Status Report.
- (2) Phase V Status Reports shall include, without limitation, the following:
 - (a) a description of the type and frequency of operation, maintenance and/or monitoring activities conducted;
 - (b) a description of any significant modifications of the operation, maintenance and/or monitoring program made since the submission of the preceding Phase V Status Report;

40.0892: continued

- (c) an evaluation of the performance of the remedial action during the period of time since the last Status Report, including:
 - 1. whether the remedial action is achieving remedial goals specified in the Phase IV Remedy Implementation Plan as described in 310 CMR 40.0874(3);
 - 2. where the remedial action is being conducted under Remedy Operation Status pursuant to 310 CMR 40.0893, whether the Performance Standards at 310 CMR 40.0893(2) continue to be met; and
 - 3. a description of any conditions or problems noted during the period that are or may be affecting the performance of the remedial action;
- (d) a description of any measures taken to correct conditions which are affecting the performance of the remedial action; and
- (e) the name, license number, signature and seal of the LSP.

(3) For a disposal site where Active Operation and Maintenance of a Comprehensive Remedial Action is being conducted, in addition to and/or in conjunction with the submittal of a Phase V Status Report, a Remedial Monitoring Report shall be submitted to the Department on a form established by the Department for such purposes at the following frequency:

- (a) when Phase V activities include the Active Operation and Maintenance of a Comprehensive Remedial Action to address an Imminent Hazard or Condition of Substantial Release Migration, with the first Phase V Status Report and monthly thereafter. In such cases where the Active Operation and Maintenance of a Comprehensive Remedial Action is not initiated until after the submittal of the first Phase V Status Report, the Remedial Monitoring Report shall be submitted on the monthly anniversary of the submittal of the first Phase V Status Report;
- (b) when Phase V activities include Active Operation and Maintenance of a Comprehensive Remedial Action to address conditions that do not pose an Imminent Hazard or Condition of Substantial Release Migration, with the first Phase V Status Report and every six months thereafter. In such cases where the Active Operation and Maintenance of the Comprehensive Remedial Action is initiated after the submittal of the first Phase V Status Report, the Remedial Monitoring Report shall be submitted concurrently with the submittal of the next Phase V Status Report;
- (c) Notwithstanding 310 CMR 40.0892(3)(a) and (b), when activities that include the Active Operation and Maintenance of a Comprehensive Remedial Action are continued in Phase V after being initiated in a previous phase of work (*i.e.*, as an Immediate Response Action, Release Abatement Measure, or during the initial implementation and operation of a remedy in Phase IV), the Status Report submittal schedule established under the previous phase of work shall be continued into Phase V.

40.0893: Remedy Operation Status

- (1) Applicability. Remedy Operation Status applies to disposal sites in Phase V where a Comprehensive Remedial Action that relies upon Active Operation and Maintenance of a remedial system, mitigation measure, program or combination thereof and meets the requirements of 310 CMR 40.0893 is being conducted for the purpose of achieving a Permanent Solution.
- (2) Performance Standard for Remedy Operation Status. To achieve and maintain Remedy Operation Status for a disposal site:
 - (a) Phase III and Phase IV Comprehensive Response Actions as described in 310 CMR 40.0850 and 40.0870, respectively, shall be completed;
 - (b) the remedial system, mitigation measure, program or combination thereof shall be adequately designed in accordance with 310 CMR 40.0870 to achieve a Permanent Solution;
 - (c) the remedial system, mitigation measure, program or combination thereof shall be operated and maintained in accordance with the requirements of 310 CMR 40.0890 and 40.0000 and any applicable permits, approvals, or licenses;
 - (d) each Source of OHM Contamination shall be eliminated or controlled in accordance with 310 CMR 40.1003(5)(a) and 310 CMR 40.1003(5)(c);
 - (e) plumes of dissolved OHM in groundwater, and vapor-phase OHM in the Vadose Zone are stable or contracting or otherwise controlled or mitigated to the extent feasible;
 - (f) any Substantial Hazard shall be eliminated;
 - (g) where the remedy includes one or more Active Exposure Pathway Mitigation Measure(s), the requirements at 310 CMR 40.1026 are met; and
 - (h) at a minimum, information and data on operation and maintenance or monitoring shall be documented and submitted to the Department in Status and Remedial Monitoring Reports at the

frequency described in 310 CMR 40.0892.

40.0893: continued

(3) Content of Submittal. Unless otherwise specified by the Department, Remedy Operation Status shall be effective upon submission of a completed Remedy Operation Status Submittal. A complete Submittal shall include:

- (a) a completed transmittal form established by the Department for such purposes;
- (b) a Remedy Operation Status Opinion prepared in accordance with 310 CMR 40.0015 that finds that each of the performance standards described in 310 CMR 40.0893(2) are met; and
- (c) the certification required by 310 CMR 40.0009.

(4) Effect of Remedy Operation Status. At any site with Remedy Operation Status, the deadline to achieve a Permanent or Temporary Solution within five years of the effective date of a Tier Classification as described in 310 CMR 40.0560 shall not apply and a Tier Classification Extension as described in 310 CMR 40.0560(7) shall not be required provided that the Remedy Operation Status is not terminated pursuant to 310 CMR 40.0893(6).

(5) Transfer or Modification of Remedy Operation Status. Remedy Operation Status may be transferred to one or more person(s) who will assume responsibility for the ongoing operation of the Comprehensive Remedial Action under Remedy Operation Status or modified to add one or more persons to those persons conducting response actions under Remedy Operation Status. Unless otherwise specified by the Department, such transfer or modification shall take effect upon the submittal of the following to the Department:

- (a) a completed transmittal form established by the Department for such purpose;
- (b) the written consent of the RP, PRP or Other Person(s) that submitted the Remedy Operation Status submittal;
- (c) for each transferee or each person to be added to those persons conducting response actions, a statement detailing that person's history of compliance with the Department's requirements, including, but not limited to, M.G.L. c. 21E, 310 CMR 40.0000 and other laws for the protection of health, safety, public welfare and the environment administered or enforced by the Department or other federal, state or local government agencies that are material to the disposal site;
- (d) in the case of a modification to add a person(s) to those persons conducting response actions or of more than one transferee, designation of a primary representative and a certification that he or she is fully authorized to act on behalf of the persons conducting response actions under Remedy Operation Status;
- (e) a statement as to why the transfer or modification is being sought; and
- (f) the certification required by 310 CMR 40.0009 for each person to be added to those conducting response actions.

(6) Termination of Remedy Operation Status.

- (a) Remedy Operation Status shall terminate if:
 - 1. the person providing the Remedy Operation Status Opinion fails to meet the requirements of 310 CMR 40.0893(2). Mechanical failure of the system and/or the need to undertake substantial system modifications shall not terminate Remedy Operation Status if written notice is provided to the Department and the operation of the remedy is resumed in accordance with 310 CMR 40.0893(6)(b); or
 - 2. the person providing the Remedy Operation Status Opinion notifies the Department in accordance with 310 CMR 40.0893(6)(c) that such person intends to terminate Remedy Operation Status;
- (b) Any person conducting response actions at a disposal site with Remedy Operation Status who obtains knowledge that the criteria in 310 CMR 40.0893(2) are no longer being met, including knowledge of a mechanical failure and/or need to substantially modify the remedial system or program, shall provide written notice to the Department in the form of a Status Report within 30 days of obtaining such knowledge. Notice shall include plans and a timetable to correct failures and/or to implement modifications of the remedial system or program. Remedy Operation Status shall terminate unless the remedial system or program is operating in accordance with 310 CMR 40.0893(2) within 120 days of providing such written notice or within an Interim Deadline established by the Department and a Status Report is submitted to the Department that documents the resumed operation of the remedy within 120 days of the notice or the Interim Deadline, whichever is applicable;

40.0893: continued

- (c) Any person who intends to discontinue operation of the remedial system or program or, where applicable, an Active Exposure Pathway Mitigation Measure, on which the Remedy Operation Status is based and/or otherwise terminate Remedy Operation Status, shall provide written notice to the Department. Remedy Operation Status shall terminate upon the Department's receipt of such notice;
- (d) Notwithstanding 310 CMR 40.0893(6)(c), any person who intends to discontinue operation of the remedial system, program or Active Exposure Pathway Mitigation Measure on which the Remedy Operation Status is based in order to assess whether the remedial goals have been achieved and conditions remain stable over time may maintain Remedy Operation Status provided that he or she:
 - 1. notifies the Department of the system shut down for the purpose of such evaluation and the plans for monitoring site conditions in the next required Status Report following system shut down;
 - 2. continues to submit Status Reports at the frequency required in 310 CMR 40.0892; and
 - 3. notifies the Department if operation of the system is resumed in the next required Status Report following resumed operation;
- (e) Any person conducting response actions at a disposal site where Remedy Operation Status has been terminated pursuant to 310 CMR 40.0893(6)(a) shall have two years from the date of the termination to achieve a Permanent or Temporary Solution. Response actions after the termination of Remedy Operation Status shall not be conducted without a valid Tier Classification or Extension thereof.

40.0894: Phase V Completion Statement

- (1) Upon achievement of a Permanent or Temporary Solution after conducting Phase V operation, maintenance and/or monitoring activities, a Phase V Completion Statement form, established by the Department for such purposes, shall be submitted with the final Phase V inspection and monitoring report to the Department.
- (2) The Phase V Completion Statement form shall include:
 - (a) an Opinion from a Licensed Site Professional:
 - that:
 - 1. specifies the Phase V outcome achieved as described in 310 CMR 40.0896;
 - 2. except where operation, maintenance and/or monitoring are continuing under 310 CMR 40.0897 and 40.0898, provides a description of residual oil and/hazardous material at the disposal site and any measures in place, including physical barriers and/or Activity and Use Limitation for preventing or limiting the exposure of human and/or environmental receptors to residual oil and hazardous material; and
 - 3. except where operation, maintenance and/or monitoring are continuing under 310 CMR 40.0897 and 40.0898, provides justification for terminating operation, maintenance and/or monitoring activities; and
 - (b) a certification of the submittal required by 310 CMR 40.0009.

40.0895: Public Involvement

- (1) Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public Involvement Activities relevant to Phase V specifically include, but are not limited to, those activities set forth in 310 CMR 40.1403(3)(e) and (f).
- (2) If the disposal site where the Phase V is conducted is a Public Involvement Plan site, then a Public Involvement Plan that is consistent with 310 CMR 40.1405 shall be implemented.

40.0896: Possible Outcomes

Upon completion of operation, maintenance and monitoring activities under Phase V the following outcomes are possible:

40.0896: continued

- (1) the requirements of a Permanent Solution under 310 CMR 40.1000 have been met and no additional operation, maintenance and/or monitoring of the remedial action alternative is necessary to ensure the integrity of the Permanent Solution. A Permanent Solution Statement shall be submitted to the Department;
- (2) the requirements of a Permanent Solution under 310 CMR 40.1000 have been met but conditions apply to maintaining the Permanent Solution. A Permanent Solution with Conditions Statement shall be submitted to the Department;
- (3) the requirements of a Temporary Solution under 310 CMR 40.1000 have been met and no additional operation, maintenance and/or monitoring of the remedial action alternative is necessary to ensure the integrity of the Temporary Solution. A Temporary Solution Statement shall be submitted to the Department; or
- (4) the requirements of a Temporary Solution under 310 CMR 40.1000 have been met, a Temporary Solution Statement has been submitted to the Department, and additional Post-temporary Solution Operation, Maintenance, and/or Monitoring of the remedial action alternative under 310 CMR 40.0897 and 40.0898 is necessary to ensure that the conditions upon which the Temporary Solution is based are maintained and/or that further progress toward a Permanent Solution is made.

40.0897: Post-temporary Solution Operation, Maintenance and/or Monitoring

- (1) 310 CMR 40.0897 shall apply to any disposal site where:
 - (a) a Temporary Solution Statement for a Temporary Solution under 310 CMR 40.1000 has been submitted to the Department;
 - (b) the operation, maintenance and/or monitoring of the Comprehensive Remedial Action is necessary to ensure that the conditions upon which the Temporary Solution is based are maintained; and
 - (c) operation, maintenance and/or monitoring activities are being conducted in accordance with the previously submitted Remedy Implementation Plan pursuant to 310 CMR 40.0874 or other operation, maintenance and monitoring plan provided pursuant to 310 CMR 40.1057(2)(i).
- (2) Post-temporary Solution operation, maintenance and/or monitoring activities may include the following:
 - (a) operation and maintenance of the Comprehensive Remedial Action;
 - (b) monitoring to evaluate the performance of the remedial systems and whether the remedial action is meeting its design specifications;
 - (c) monitoring of conditions at the disposal site to evaluate the effectiveness of the remedial action in reducing, treating and/or containing oil and/or hazardous material;
 - (d) efforts to correct problems if performance monitoring indicates that the remedial action is not performing as designed;
 - (e) monitoring to confirm the long-term effectiveness of the remedial action in maintaining the Temporary Solution pursuant to 310 CMR 40.1000; and
 - (f) documentation and submission of the results of operation, maintenance and monitoring activities to the Department, as described in 310 CMR 40.0898.
- (3) Post-temporary Solution operation, maintenance and/or monitoring activities shall be conducted at a frequency which is sufficient to ensure the effective performance and the integrity of the remedial action, consistent with the Response Action Performance Standard as described in 310 CMR 40.0191, and in conformance with the terms of applicable permits, approvals, licenses and remedial action plan. Such plan shall be revised and updated as warranted in response to changes in site conditions, modifications to remedial systems, or as otherwise necessary to ensure that the remedial action achieves design standards and remedial goals.
- (4) Post-temporary Solution operation, maintenance and/or monitoring activities shall be documented and submitted to the Department in a Post-temporary Solution Status Report, and when required, Remedial Monitoring Reports in accordance with the requirements in 310 CMR 40.0898.

40.0898: Post-temporary Solution Status and Remedial Monitoring Reports

(1) Post-temporary Solution Status Reports as described in 310 CMR 40.0898(2) shall be submitted to the Department as specified below:

(a) for a disposal site with a Temporary Solution where Active Operation and Maintenance is ongoing (i.e., an Active Remedial System or Active Exposure Pathway Mitigation Measure is operating or an Active Remedial Monitoring Program is being conducted), a Post-temporary Solution Status Report shall be submitted to the Department six months from the receipt by the Department of the Temporary Solution Statement and every six months thereafter until Active Operation and Maintenance is ceased or a Permanent Solution is achieved;

(b) except as provided at 310 CMR 40.0898(1)(c), for a disposal site with a Temporary Solution where Active Operation and Maintenance is not being conducted, a Post-temporary Solution Status Report shall be submitted to the Department within one year of receipt by the Department of the Temporary Solution Statement and annually thereafter until a Permanent Solution is achieved and where applicable, an annual Status Report may be combined with the Periodic Review of the Temporary Solution Opinion required pursuant to 310 CMR 40.1050(4)(b);

(c) for a disposal site with a Temporary Solution where Active Operation and Maintenance is not being conducted, persons conducting response actions may seek to reduce the frequency of Post-temporary Solution Status Report to less than an annual frequency upon approval by the Department of a proposal that provides a reduced frequency in number of years not to exceed five and the justification for such frequency based on considerations including but not limited to the stability of disposal site conditions, and current and foreseeable disposal site risk, provided that:

1. any proposal submitted to the Department to reduce the Status Report frequency shall be approved, conditionally approved, or denied by the Department in writing within 21 days of receipt. Approval of such plan shall be presumed if the Department does not issue a written approval or denial of said proposal within 21 days of receipt;

2. notwithstanding any reduced frequency of Post-temporary Solution Status Report submittals, appropriate monitoring shall continue and be documented as specified in 310 CMR 40.0898(1)(d);

(d) in all cases, Post-temporary Solution Status Reports shall document activities occurring over the period of time since the submission to the Department of the Temporary Solution Statement or previously submitted Status Report, whichever occurred last; and

(e) the submittal of Post-temporary Solution Status Reports at the frequency specified at 310 CMR 40.0898(a) through (c) shall have the effect of maintaining a Tier Classification Extension obtained pursuant to 310 CMR 40.0560(7) for the duration that such Status Reports are submitted to the Department.

(2) Post-temporary Solution Status Reports shall include, without limitation, the following:

(a) a description of the type and frequency of operation, maintenance and/or monitoring activities conducted;

(b) a description of any significant modifications of the operation, maintenance and/or monitoring program made since the submission of the preceding Status Report;

(c) an evaluation of the performance of the remedial action during the period of time since the last Status Report, including whether the remedial action is achieving remedial goals specified in the applicable remedial action plan and a description of any conditions or problems noted during the period that are or may be affecting the performance of the remedial action;

(d) a description of any measures taken to correct conditions which are affecting the performance of the remedial action; and

(e) the name, license number, signature and seal of the LSP.

(3) For a disposal site where Active Operation and Maintenance of a remedial action is being conducted, in addition to and/or in conjunction with the submittal of Post-temporary Solution Status Reports, a Remedial Monitoring Report shall be submitted to the Department on a form established by the Department for such purposes with the first Post-temporary Solution Status Report and every six months thereafter. In such cases where the Active Operation and Maintenance of a remedial action is not initiated until after the submittal of the first Post-temporary Solution Status Report, the Remedial Monitoring Report shall be submitted concurrently with the next Post-temporary Solution Status Report.

SUBPART I: RISK CHARACTERIZATION

40.0900: Procedures and Standards for the Characterization of the Risk of Harm to Health, Safety, Public Welfare and the Environment

310 CMR 40.0901 through 40.0999, cited collectively as 310 CMR 40.0900, describes the procedures for evaluating the risks posed by oil and/or hazardous material at disposal sites.

40.0901: Applicability and General Requirements

- (1) The procedures, criteria and standards of 310 CMR 40.0900 are applicable to all disposal sites for which response actions are required by M.G.L. c. 21E and/or 310 CMR 40.0000.
- (2) The general procedures and standards which apply to all Risk Characterizations are described in 310 CMR 40.0901 through 40.0939. Requirements which are specific to the type and method of Risk Characterization being performed are described in 310 CMR 40.0940 through 310 CMR 40.0999.
- (3) The characterization of risk of harm to health, safety, public welfare, and the environment is not required for a disposal site, environmental medium, or chemical for which response actions have successfully reduced concentrations to background levels, as described in 310 CMR 40.1020.
- (4) The characterization of the risk of harm to health, safety, public welfare and the environment shall be performed in a manner consistent with scientifically acceptable risk assessment practices, and shall take into consideration guidance published by the Department.

40.0902: Purpose of the Risk Characterization

A characterization of the risk of harm to health, safety, public welfare and the environment is performed at disposal sites to provide the quantitative and qualitative information used to evaluate the need for remedial actions:

- (1) Risk Characterization is used to identify and evaluate site conditions which may pose an Imminent Hazard. The methodology used in this evaluation is described in 310 CMR 40.0950.
- (2) Risk Characterization is used to establish whether a level of No Significant Risk exists or has been achieved at a disposal site. The criteria used in this determination are described in 310 CMR 40.0900, and two basic approaches to Risk Characterization are utilized:
 - (a) A chemical-specific approach, which compares site concentrations to standards in soil and groundwater, as described in 310 CMR 40.0970 through 40.0989. For the disposal sites to which they are applicable, these standards have been developed to meet the same objectives of the cumulative risk approach described in 310 CMR 40.0902(2)(b).
 - (b) A cumulative risk approach which compares site-specific information to a Cumulative Cancer Risk Limit of an Excess Lifetime Cancer Risk of one-in-one hundred thousand, a Cumulative Noncancer Risk Limit which is a Hazard Index equal to one, promulgated health, safety, public welfare and environmental standards, and site-specific conditions, as described in 310 CMR 40.0990 through 40.0999.
- (3) If the concentration of an oil and/or hazardous material at the disposal site is at or below background levels, then that oil and/or hazardous material need not be included in the disposal site Risk Characterization. Disposal sites at which all oil and hazardous material have been reduced to background levels are eligible for a Permanent Solution, as described in 310 CMR 40.1041, even if such background levels exceed one or more of the numerical standards or risk criteria published in 310 CMR 40.0900.
- (4) The results of the Risk Characterization shall be the basis for a decision whether a remedial action is necessary and to select the appropriate Permanent or Temporary Solution for the disposal site pursuant to 310 CMR 40.1000.
- (5) "Screening" Risk Characterizations may be performed using worst-case exposure assumptions to quickly demonstrate that a condition of No Significant Risk exists or has been achieved at a disposal site. If such a conclusion cannot be reached following a screening Risk Characterization, a more detailed assessment is appropriate.

40.0903 Scope of the Risk Characterization and Supporting Documentation

- (1) The scope and level of effort of the Risk Characterization shall depend on the complexity of the disposal site and the response action being performed. The Risk Characterization shall be of sufficient scope and adequately documented to demonstrate that the Response Action Performance Standard (RAPS) has been met in accordance with 310 CMR 40.0191.
- (2) The length and complexity of the documentation of the Risk Characterization shall depend upon the nature of the site and the response action being performed, as well as the method of Risk Characterization being performed. The documentation may be written as a separate report or as one or more components of another submittal required pursuant to 310 CMR 40.0000.

40.0904: Site Information Required for Risk Characterization

An adequate characterization of the disposal site is a prerequisite to the characterization of risk of harm to health, safety, public welfare and the environment, although the appropriate type and amount of information required to complete a Risk Characterization will depend on the unique characteristics of a release and/or disposal site. Particular attention shall be paid to the following site assessment parameters:

- (1) Physical Characteristics. The physical characteristics of the disposal site, including, but not limited to, the topography, geology, hydrogeology, and surface characteristics shall be evaluated as warranted by release and site conditions and described in sufficient detail to support the Risk Characterization.

40.0904: continued

(2) Extent of Release. The documentation of the Risk Characterization shall contain a description of the source and extent of the release of the oil and/or hazardous material, including, where appropriate:

- (a) the horizontal and vertical extent and concentrations of oil and/or hazardous material in all evaluated media;
- (b) background concentrations of oil and/or hazardous material in all evaluated media; and
- (c) all existing or potential Migration Pathways, including, but not limited to: soil, groundwater, soil gas, surface water, air, sediment and the food web. The potential for oil and/or hazardous material migration along preferential pathways such as utility lines or corridors must be evaluated, where applicable. Concentrations of oil and hazardous material in the sediment and/or surface water must be measured in any of the following circumstances to determine whether such material at or from the site has been or is being transported in a manner that would result in surface water or sediment concentrations of potential ecological significance, unless the need for such measurements is obviated by a technical justification consistent with 310 CMR 40.0193:
 - 1. Hazardous materials at or from the site, excluding VOCs, are present in groundwater within 200 feet of a surface water body;
 - 2. Hazardous materials at or from the site, excluding VOCs, are present in the groundwater at concentrations higher than the GW-3 standard(s) within 500 feet of a surface water body;
 - 3. Nonaqueous Phase Liquid (NAPL) at or from the site is present within 200 feet of a surface water body;
 - 4. Historical evidence indicates past discharge or dumping of oil or hazardous material from the site to the surface water body, unless such discharges were permitted;
 - 5. Evidence indicates current or past runoff of oil or hazardous material from or with site soil into the surface water body; and
 - 6. Site-specific conditions indicate that oil or hazardous material from the site may reasonably be expected to be present in the sediment or surface water at concentrations of potential ecological significance.

(3) Characterization of the Oil and/or Hazardous Material. The documentation of the Risk Characterization shall describe the oil and/or hazardous material at the disposal site, including, without limitation and where appropriate:

- (a) type, volume, composition, nature, physical, chemical and toxicological characteristics; and
- (b) environmental fate and transport characteristics, including mobility, stability, volatility, ability and opportunity for bioaccumulation, and persistence in the environment.

40.0920: Receptor Information Required for Risk Characterization

The identification of receptors, Site Activities and Uses, Exposure Points and Exposure Point Concentrations shall be conducted in a manner which provides a conservative estimate of the exposure to oil and/or hazardous material which a receptor may receive within the contaminated area over a period of time.

40.0921: Identification of Human Receptors

The documentation of the Risk Characterization shall identify and describe the Human Receptors who are likely to be present at the disposal site or in the surrounding environment, and who, as a result, would likely be exposed to oil and/or hazardous material.

- (1) The identification of the Human Receptors shall consider the current and reasonably foreseeable uses of the disposal site and the surrounding environment.
- (2) The Human Receptors identified shall not be specific individuals, but shall be described as groups of individuals.
- (3) Subpopulations which may be at increased risk due to increased sensitivity, particular behavior patterns or current or past exposures to chemicals in the environment shall be identified as distinct receptors.

40.0921: continued

(4) The Human Receptors shall be described in terms such as age group, occupation or other characteristics which will distinguish them from the general population. Examples of such descriptions include, without limitation:

- (a) lifelong residents at the disposal site;
- (b) trespassers;
- (c) women of childbearing age;
- (d) construction workers; and
- (e) children, ages one to eight years.

40.0922: Identification of Environmental Receptors

The documentation of the Risk Characterization shall identify and describe the Environmental Receptors which are likely to be present at the disposal site or in the surrounding environment and which, as a result, would likely be exposed to oil and/or hazardous material.

(1) Examples of such biota may include, but are not limited to:

- (a) wildlife, such as deer, squirrel and fox;
- (b) fish and shellfish; and
- (c) plants, such as grasses and trees.

(2) Examples of such habitats may include, but are not limited to:

- (a) Areas of Critical Environmental Concern;
- (b) surface water;
- (c) fresh and saltwater fisheries and fish habitat, including, but not limited to, shellfish areas; and
- (d) wetlands.

(3) Any Species of Concern, Threatened Species, or Endangered Species which is known or likely to be located at the disposal site or in the surrounding area shall be specifically identified as an Environmental Receptor.

40.0923: Identification of Site Activities and Uses

The documentation of the Risk Characterization shall identify and describe the Site Activities and Uses associated with the disposal site and the surrounding environment. These activities shall be used in combination with the criteria described in 310 CMR 40.0930 through 40.0939 to identify applicable groundwater and soil categories and to estimate the nature and, where appropriate, quantify the magnitude of exposure pursuant to 310 CMR 40.0990.

(1) The Site Activities and Uses shall include all current and reasonably foreseeable uses and activities occurring at the disposal site or in the surrounding environment which could result in exposure to oil and/or hazardous material by Human or Environmental Receptors.

- (a) The identification of Site Activities and Uses of the groundwater shall be determined independent of the activities and uses of the land itself.
- (b) The Site Activities and Uses of the land shall be identified without regard to whether the land is currently developed or undeveloped.
- (c) The selection of site-specific exposure frequency and exposure duration should be representative of the full extent of site activities consistent with the identified Site Use.

(2) The current Site Activities and Uses associated with the land itself, with structures in and on the land, and with the groundwater, surface water, soil, sediment or other medium which could result in exposure of Human or Environmental Receptors to oil and/or hazardous material shall be identified and described. This evaluation shall include consideration of activities which actually may not be occurring at the time of the evaluation, but which are consistent with the current use of the disposal site and surrounding environment and may reasonably be expected to occur, including but not limited to emergency excavation and repair of existing subsurface utilities by workers without personal protective equipment.

40.0923: continued

(3) The reasonably foreseeable Site Activities and Uses shall include any possible activity or use that could occur in the future to the extent that such activity or use could result in exposures to Human or Environmental Receptors that are greater than the exposures associated with current Site Activities and Uses, except that:

- (a) the groundwater shall not be considered a reasonably foreseeable source of drinking water unless it is considered to be in category GW-1 pursuant to the criteria listed in 310 CMR 40.0932(4);
- (b) specific Site Activities and Uses which would be reasonably foreseeable pursuant to 310 CMR 40.0923(3) may be eliminated from further consideration through the use of Activity and Use Limitations in accordance with 310 CMR 40.1012 and 310 CMR 40.1070 through 40.1089; and
- (c) specific Site Activity and Uses which would be reasonably foreseeable pursuant to 310 CMR 40.0923(3) may be eliminated from further consideration if they are consistent with the limitations, assumptions and/or conditions at 310 CMR 40.1013 and are documented in support of a Permanent Solution with Conditions pursuant to 310 CMR 40.1056(2)(j).

(4) If the Site Activities and Uses considered in the Risk Characterization will be limited in any way as described in 310 CMR 40.0923(3)(b) or (c) or by a restriction imposed by a government agency which is or will be in place, then the documentation of the Risk Characterization must clearly and concisely state the nature of any and all explicit or implied exposure limitations and describe the Site Activities and Uses which must be controlled or prohibited.

- (a) The assessment of current Site Activities and Uses shall not be limited by Activity and Use Limitations and/or government restrictions that are not in place or not effective, nor by any assumed future practices, controls or conditions; and
- (b) The results of the Risk Characterization shall not be considered valid unless and until all necessary government restrictions are in place and/or all Activity and Use Limitations have been recorded, registered or filed in accordance with 310 CMR 40.1070 through 40.1089.

(5) If the Site Activities and Uses considered in the Risk Characterization have been limited in any way by temporary risk reduction measures (*e.g.*, fences which restrict access) employed at the disposal site, or by presumed future response actions, the documentation of the Risk Characterization shall describe clearly and concisely the nature of all such limitations. The documentation of the Risk Characterization shall clearly and concisely state that:

- (a) the conclusions presented are based upon the described temporary measures and/or the implementation of described future response actions; and
- (b) the conclusions are valid only if, and as long as, the site conditions or the temporary measures are maintained and/or the presumed response actions have been implemented as described.

(6) Examples of Site Activities and Uses associated with Human Receptors include, without limitation:

- (a) the use of a building as an office, store or residence;
- (b) the use of water as drinking water, for washing floors or watering lawns;
- (c) the cultivation of fruits and vegetables destined for human consumption (*e.g.*, gardening or farming) and the cultivation of ornamental plants;
- (d) the excavation of soil;
- (e) recreational activities, such as playing baseball, swimming, fishing and hiking;
- (f) leisure activities, such as picnicking, sunbathing and entertaining.

(7) Examples of Site Activities and Uses associated with Environmental Receptors include, without limitation:

- (a) foraging by wildlife;
- (b) the support of plant or wildlife populations; and
- (c) the seasonal use of a location for nesting or mating.

40.0924: Identification of Exposure Points

- (1) All potential Exposure Points shall be identified and described in the documentation of the Risk Characterization after considering the site and receptor information described in 310 CMR 40.0904 through 40.0923.
- (2) The identification of an Exposure Point shall be consistent with the type and method of Risk Characterization which is being performed.
 - (a) Methods 1 and 2 Risk Characterizations—The Exposure Point(s) in groundwater and soil shall be identified and documented for all current and reasonably foreseeable Site Activities and Uses.
 1. For groundwater, the Exposure Point(s) shall be the groundwater resource itself, as measured at each wellhead and/or nearest tap of a well screened within the horizontal and vertical distribution of the oil and/or hazardous material in the groundwater. Existing water supply wells and monitoring wells shall be used to represent current or potential groundwater Exposure Points.
 2. For soil, the Exposure Point(s) shall be defined by the horizontal and vertical distribution of the contaminated soil in combination with the soil category(ies) determined to be applicable. For a contiguous volume of contaminated soil comprised of one or more soil categories as defined in 310 CMR 40.0933, a separate and distinct Exposure Point shall be represented by the soil in each category.
 - (b) Method 3 Risk Characterization—The Exposure Point(s) in all environmental media shall be identified for all current and reasonably foreseeable Site Activities and Uses.
 1. For comparisons to Applicable or Suitably Analogous Standards, the Exposure Point shall be identified in a manner consistent with the applicable regulations.
 2. Except as provided in 310 CMR 40.0924(6)(c), in GW-1 groundwater areas, for the comparison to drinking water standards listed in 310 CMR 22.00: *Drinking Water* and for the calculation of current and/or potential exposure to the groundwater, the Exposure Point(s) shall be the groundwater resource itself, as measured at each wellhead and/or nearest tap of a well screened within the horizontal and vertical distribution of the oil and/or hazardous material in the groundwater. Existing water supply wells and monitoring wells shall be used to represent current or potential groundwater Exposure Points.
- (3) The Exposure Point(s) in all environmental media shall be identified for all current and reasonably foreseeable Site Activities and Uses.
- (4) For comparisons to Applicable or Suitably Analogous Standards in Method 3, the Exposure Point shall be identified in a manner consistent with the applicable regulations.
- (5) Consideration shall be given to the identification of Exposure Points which may be located at a distance from the original source of the release, particularly when the migration of oil and/or hazardous material may result in Exposure Points in addition to those identified under current site conditions.
- (6) Groundwater Exposure Points.
 - (a) In Methods 1 and 2 Risk Characterizations, the Exposure Point(s) shall be the groundwater resource itself, as measured at each wellhead and/or nearest tap of a well screened within the horizontal and vertical distribution of the oil and/or hazardous material in the groundwater. Existing water supply wells and monitoring wells shall be used to represent current or potential groundwater Exposure Points.
 - (b) In Method 3 Risk Characterization, except as provided in 310 CMR 40.0924(6)(c), in GW-1 groundwater areas, for the comparison to drinking water standards listed in 310 CMR 22.00: *Drinking Water* and for the calculation of current and/or potential exposure to the groundwater, the Exposure Point(s) shall be the groundwater resource itself, as measured at each wellhead and/or nearest tap of a well screened within the horizontal and vertical distribution of the oil and/or hazardous material in the groundwater. Existing water supply wells and monitoring wells shall be used to represent current or potential groundwater Exposure Points.
 - (c) In GW-1 areas that are designated GW-1 solely on the basis of being located within a Zone II or an Aquifer Protection District that overlays or is contiguous with a Zone II and where sites meet the following criteria, the Exposure Point shall be the existing Public Water Supply well(s) for the evaluation of current and future drinking water exposures to petroleum hydrocarbons at or from the disposal site and the Exposure Point Concentration shall be identified pursuant to 310 CMR 40.0926(7)(d):
 1. For the purposes of this provision, the term “petroleum hydrocarbons” shall mean the

petroleum-derived constituents of crude or fuel oil, such as Total Petroleum Hydrocarbons, Benzene, Toluene, Ethylbenzene and Xylenes, but not including additives;

2. This Exposure Point is only applicable to petroleum hydrocarbons at or from the disposal site and may be used in combination with Exposure Points identified for the evaluation of other contaminants at or from the disposal site;

3. A Phase II Report for the disposal site pursuant to 310 CMR 40.0830 has been submitted;

4. The disposal site is located at a distance greater than 1,000 feet from a Public Water Supply well;

5. It has been demonstrated that the requirements at 310 CMR 40.1003(5)(a) and (b) and 310 CMR 40.1003(7)(a) have been met to address any NAPL present;

6. It has been demonstrated through adequate characterization of horizontal migration that groundwater petroleum hydrocarbon concentrations are:

a. not detected at or above analytical limits appropriate for a GW-1 area at the downgradient edge of the plume, at least 1,000 feet from the Public Water Supply well(s); and

b. decreasing within the boundaries of the plume. Demonstration of diminishing contaminant concentrations within the plume shall consider both the spatial and temporal distribution of the contamination and other measures indicative of biodegradation of the contaminants;

7. It has been demonstrated through adequate characterization of vertical migration that contamination has not entered bedrock including the submittal of a profile sectional map showing the following information:

a. known or inferred depth to bedrock;

b. depths to the top and bottom of the plume throughout the length of the plume; and

c. existing well screen depths in comparison to the plume; and

8. It has been demonstrated that there is no potential Exposure Point Concentration in accordance with the criteria specified at 310 CMR 40.0926(7).

(7) Soil Exposure Points.

(a) For Methods 1 and 2 Risk Characterization, the Exposure Point(s) shall be defined by the horizontal and vertical extent and distribution of the contamination in combination with the soil category(ies) determined to be applicable.

1. For a contiguous volume of contaminated soil comprised of one or more soil categories as defined in 310 CMR 40.0933, a separate and distinct Exposure Point shall be represented by the soil in each category.

2. The top 3 feet of surface soil shall represent a separate exposure point for current use scenarios.

(b) For Method 3 Risk Characterization for current or potential soil exposures, the following depths shall be considered with any applicable site-specific information when determining Exposure Points:

1. zero to three feet for exposures associated with surficial activity;

2. zero to six feet for exposures associated with utility installation and repair; and

3. zero to 15 feet for exposures associated with excavation scenarios and building construction.

(c) For Imminent Hazard Evaluations, the top foot of soil shall be the Exposure Point.

(8) Indoor Air Exposure Points are locations within a building where exposure occurs or could occur. Indoor air Exposure Points:

(a) shall be identified considering the nature, duration and likely frequency of exposure; and

(b) areas of the building where exposure is likely to be different should be identified as distinct Exposure Points.

(9) Sediment Exposure Points.

(a) Sediment Exposure Points shall be identified for human and ecological receptors separately.

(b) Exposure Points shall be identified considering the life history of potential ecological receptors, potential human activities and uses, the timing of the exposure and the potential for short-term effects from the contaminants of concern.

(10) Surface Water Exposure Points.

(a) Surface water Exposure Points shall be identified for human and ecological receptors separately

(b) Exposure Points shall be identified considering the life history of potential ecological receptors, potential human activities and uses, the timing of the exposure and the potential for

short-term effects from the contaminants of concern.

(11) Hot Spots shall be considered distinct Exposure Points.

(12) Examples of typical Exposure Points for disposal sites shall include, without limitation:

- (a) an existing public or private water supply;
- (b) a future drinking water supply;
- (c) a Hot Spot of contamination in a neighborhood playground;
- (d) a volume of subsurface soil at a potential construction site;
- (e) a distant shellfish bed.

40.0925: Identification of Exposure Pathways

(1) For each identified receptor at each Exposure Point, the documentation of the Risk Characterization shall identify and describe all probable Exposure Pathways, based upon the media contaminated and the Site Activities and Uses.

(2) The Exposure Pathways considered shall be consistent with the type and method of Risk Characterization which is being performed.

(3) Examples of typical Exposure Pathways shall include, without limitation:

- (a) ingestion of soil, produce, water, or biota;
- (b) inhalation of air or particulate matter; and
- (c) dermal absorption from water or soil.

40.0926: Identification of Exposure Point Concentrations and Other Data Criteria

(1) For each oil and/or hazardous material in each medium at each Exposure Point, an Exposure Point Concentration shall be identified and documented.

(2) Exposure Point Concentrations shall be determined or estimated in a manner consistent with the type and method of Risk Characterization which is being performed and shall be based on a representative data set that adequately characterizes site conditions at the Exposure Point as described in 310 CNR 40.0924. The risk assessment documentation shall justify the size of the data set used to calculate the Exposure Point Concentration. Such documentation shall consider the distribution and variability of the contamination and the size of the area sampled.

(3) Except as provided in 310 CMR 40.0926(4), analytical data from the Exposure Point, as described in 310 CMR 40.0924, shall be the primary line of evidence for the determination of Exposure Point Concentrations.

(4) Except as otherwise specified at 310 CMR 40.0926(7) through (9), fate and transport models may be used in conjunction with other site information and data and/or in cases where direct sampling of a media of concern is not possible or appropriate. Such models shall be clearly documented and supported by evidence demonstrating the model's predictive performance, and shall incorporate input parameters to provide a conservative estimate of the Exposure Point Concentration pursuant to 310 CMR 40.0926(3). .

(5) In estimating the Exposure Point Concentration, the objective shall be to identify a conservative estimate of the average concentration contacted by a receptor at the Exposure Point over the relevant exposure period.

(6) Maximum concentrations shall be used to estimate an Exposure Point Concentration under the following conditions:

- (a) evaluations of acute exposures; or
- (b) screening assessments that evaluate maximum exposure potential to streamline the assessment process.

40.0926: continued

(7) Groundwater Exposure Point Concentrations

- (a) Groundwater Exposure Point Concentrations shall be determined for each wellhead (including each monitoring well) and the nearest tap of a supply well screened within the horizontal and vertical distribution of the oil and/or hazardous material in the groundwater (see 40.0924).
- (a) A groundwater Exposure Point Concentration shall be a conservative estimate of the temporal mean for the exposure period of concern, and shall consider temporal trends.
- (b) Current groundwater contaminant concentrations and site hydrogeologic conditions may be used to estimate future groundwater Exposure Point Concentrations in groundwater.
- (c) Where appropriate, current soil concentrations and site-specific factors such as infiltration rate of precipitation and soil characteristics shall be used to estimate future groundwater concentrations due to the future leaching potential of soil contaminants.
- (d) No exposure potential exists (the Exposure Point Concentration may be set equal to zero) for those sites described at 310 CMR 40.0924(6)(c) if the following conditions are met and documented based on data collected at the disposal site:
 - 1. demonstration of source elimination or control at the disposal site as described in 310 CMR 40.1003(5)(a) and (b);
 - 2. demonstration of diminishing contaminant concentrations throughout the horizontal and vertical extent of the plume;
 - 3. demonstration that contaminant concentrations are not detected at or above analytical limits appropriate for a GW-1 area at the downgradient edge of the plume, at least 1,000 feet from the Public Water Supply well; and
 - 4. the demonstrations pursuant to 310 CMR 40.0926(7)(d) are confirmed by a minimum of two years of quarterly groundwater monitoring conducted after:
 - a. the termination of any Active Remedial System or Active Remedial Monitoring Program; and
 - b. the achievement of such contaminant concentrations.

(8) Soil Exposure Point Concentrations for Chronic and Subchronic Direct Contact

- (a) To calculate Exposure Point Concentrations for chronic and subchronic human direct contact exposures, other than for screening evaluations, discrete, composite or incremental sampling procedures may be used. The risk assessment documentation shall provide a technical justification for the choice of sampling procedure and sampling approach (i.e., systematic or judgmental sampling). The following requirements for determining soil Exposure Point Concentrations apply unless otherwise specified by the Department:
 - 1. At disposal sites where the contamination originated from a discrete source and remains localized within an area less than 2,000 square feet, judgmental sampling of locations where OHM contamination most likely to be present shall be acceptable. The arithmetic average of data from the Exposure Point is acceptable as an Exposure Point Concentration, provided:
 - a. the arithmetic average is less than or equal to the applicable standard or risk-based concentration limit, 75% of the data points used in the averaging procedure are equal to or less than the applicable standard or risk-based concentration limit, and no data point used in the averaging is ten times greater than the applicable standard or risk-based concentration limit; or
 - b. a valid justification is provided indicating that the sample mean is unlikely to substantially underestimate the true mean of the concentration of oil or hazardous material at the Exposure Point. Such a demonstration should include, but need not be limited to, consideration of the observed distribution of the data, sampling strategy (including frequency, density, and potential biases), graphical representation of analytical results, and/or statistical analyses.
 - 2. For site conditions other than as provided at 310 CMR 40.0926(8)(a)1., one of the following two conditions must be met:
 - a. a systematic sampling approach shall be used to obtain a representative data set for the Exposure Point(s), and for accessible soils, the upper confidence limit on the mean shall be used with data from discrete or incremental sampling procedures to estimate Exposure Point Concentrations:
 - i. The 90th percentile Chebyshev non-parametric upper confidence limit on the mean may be used in any case;
 - ii. The 95th percentile parametric upper confidence limit on the mean for a lognormal or gamma distribution may be used if a technical justification for the choice of upper confidence limit on the mean is provided.
 - b. a valid justification for an alternative sampling method and/or approach shall be

provided. Such a justification shall be strongly supported by the site history information, the Conceptual Site Model, and information obtained from prior sampling efforts.

(b) For assessing wildlife exposure to contaminants in soil in an Environmental Risk Characterization, the average concentration of OHM within the exposure point for each receptor of concern is acceptable.

(9) Indoor Air Exposure Point Concentrations

(a) A conservative estimate of the average concentration contacted by a receptor over the exposure period of concern, based on concentrations measured in indoor air, shall be used for the Exposure Point Concentration.

1. Except where multiple rounds of data have been obtained in a manner that adequately establishes spatial and temporal variations, maximum concentration values shall be used as the Exposure Point Concentration for each contaminant of concern,

2. When sufficient data are available to characterize the spatial and temporal variability at the Exposure Point, a maximum concentration value or 95 percent upper confidence limit on the mean shall be used to develop an Exposure Point Concentration.

(b) A robust sub-slab soil vapor dataset and/or conditions may be used to:

1. estimate or aid in the estimation of Exposure Point Concentrations in the event that it is not possible to distinguish disposal site-related contamination at the Exposure Point from interior sources at ongoing commercial and/or industrial operations or interior building materials contaminated by past commercial or industrial operations; or

2. where appropriate, to rule out an indoor air Exposure Pathway.

(c) Fate and transport models shall not be used to estimate future indoor air Exposure Point Concentrations in the indoor air of buildings that have not been constructed.

(10) Sediment Exposure Point Concentrations

(a) For assessing human direct contact exposure, the exposure point concentration shall be a conservative estimate of the average concentration contacted within the exposure point over the relevant time period. The arithmetic average concentration of each OHM detected within the exposure point is acceptable.

(b) For assessing exposure to aquatic and semi-aquatic organisms, the Exposure Point Concentration shall be the spatial arithmetic average concentration appropriate for the organisms of concern.

(11) Surface Water Exposure Point Concentrations

(a) For assessing human direct contact exposure, the exposure point concentration shall be a conservative estimate of the spatial and temporal average concentration within the exposure point over the relevant time period. The arithmetic average concentration of each OHM detected within the Exposure Point is acceptable.

(b) For assessing exposure to aquatic and semi-aquatic organisms, the Exposure Point Concentration shall be the spatial and temporal average concentration appropriate for the organisms of concern. The arithmetic average concentration of each OHM detected within the exposure point is acceptable.

(12) Hot Spot Exposure Point Concentrations in Soil or Sediment.

(a) Where a Hot Spot is likely to be present based upon the Conceptual Site Model and visual, olfactory, and/or analytical screening data, discrete samples shall be taken to delineate the boundaries.

(b) Where a Hot Spot is comprised in whole or in part of waste material, including Manufactured Gas Plant Waste, the concentrations of oil and/or hazardous material within the waste shall be considered the concentration of the OHM in soil.

(c) In determining the Exposure Point Concentrations to evaluate risk from a Hot Spot, the objective shall be to provide a conservative estimate of the average concentration within the Hot Spot based on a robust data set or composite or incremental samples, as described for soil in 310 CMR 40.0926(8) and sediment at 310 CMR 40.0926(10).

(13) Upper Concentration Limits Comparison Concentrations. In determining the concentrations to compare to Upper Concentration Limits, the objective shall be to provide a conservative estimate of the average concentration within the site, and the average concentration within any Hot Spots within the site.

40.0926: continued

40.0930: Identification of Site Groundwater and Soil Categories

40.0931: Purpose

Categories of groundwater and soil have been established by the Department for use in the characterization of risk posed by disposal sites. The documentation of a Risk Characterization shall support the categorization of the groundwater and soils at the disposal site.

- (1) The groundwater and soil categories shall be used to determine the applicability of the groundwater and soil standards listed in 310 CMR 40.0974(2), 40.0975(6)(a), (b) and (c), and 40.0985(6) when Methods 1 or 2 are used to characterize risk.
- (2) The groundwater categories shall be used to identify applicable or suitably analogous standards as described in 310 CMR 40.0993(3), when Method 3 is used to characterize risk.
- (3) The groundwater and soil categories shall be considered in determining the need for Activity and Use Limitations as part of a Permanent or Temporary Solution.

40.0932: Identification of Applicable Groundwater Categories

- (1) The groundwater categories describe the potential for three different types of exposure. More than one category may apply to a single disposal site. In such cases all applicable categories shall be identified.
- (2) Groundwater at all disposal sites shall be considered a potential source of discharge to surface water and shall be categorized, at a minimum, as category GW-3. The site, receptors, and exposure information identified in 310 CMR 40.0904 through 40.0929 shall be used in conjunction with the criteria listed below to determine if the groundwater shall also be categorized as GW-1 and/or GW-2.
- (3) The appropriate groundwater category shall be identified for both:
 - (a) groundwater currently affected by the release of oil and/or hazardous materials, and
 - (b) any area to which the groundwater affected by the release is expected to migrate.
- (4) Groundwater Category GW-1 Except as provided by 310 CMR 40.0932(5), groundwater shall be defined as GW-1 if the groundwater is located:
 - (a) within a Current Drinking Water Source Area; or
 - (b) within a Potential Drinking Water Source Area.
- (5) Notwithstanding the provisions of 310 CMR 40.0932(4):
 - (a) Interim Wellhead Protection Area. Groundwater that is categorized as a Current Drinking Water Source Area, solely due to its location within an Interim Wellhead Protection Area, need not be so categorized if it is demonstrated that there is no hydrogeologic connection between the groundwater and the public water supply well on the basis of the following:

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1. the groundwater is hydrogeologically downgradient of the public water supply well based on regional groundwater flow and gradient, and beyond the stagnation point. The determination of such a stagnation point shall be based on site-specific parameters and the highest daily approved pumping rate for the public water supply well; or
 2. the disposal site is cross-gradient (perpendicular) to regional groundwater flow direction and at sufficient distance from the public water supply well such that it is outside of the zone of contribution for the public water supply well. The determination of such a zone of contribution shall be based on site-specific parameters and the highest daily approved pumping rate for the public water supply well; or
 3. a hydrogeologic barrier exists between the groundwater at the disposal site and the public water supply well.
- (b) Potential Drinking Water Source Area. Groundwater that is categorized as a Potential Drinking Water Source Area solely due to its location within an area defined as a Potentially Productive Aquifer need not be so categorized if:
1. site-specific information on the types and/or transmissivity of soils shows that the groundwater is not located within the true boundary of the medium or high yield aquifer(s) which comprise(s) the Potentially Productive Aquifer; or
 2. the groundwater within the Potentially Productive Aquifer is naturally brackish, or has naturally high levels of metals, such that the development of the aquifer as a public water supply is currently technologically or economically infeasible.
- (c) Case-specific Designation of a Non-potential Drinking Water Source Area.
1. One or more municipalities or private parties may petition the Department to change the categorization of groundwater within a Potentially Productive Aquifer from a Potential Drinking Water Source Area to a Non-potential Drinking Water Source Area because:
 - a. the groundwater is categorized as a Potential Drinking Water Source Area solely due to its location within a Potentially Productive Aquifer, and is not categorized as a Current Drinking Water Source Area;
 - b. the groundwater has been contaminated by one or more releases of oil and/or hazardous materials, and:
 1. such releases exceed the reporting thresholds established by 310 CMR 40.0300; and
 2. it is not feasible to achieve GW-1 standards for such groundwater (pursuant to 310 CMR 40.0860),
 - c. the land area overlying the groundwater does not meet the criteria established in the definition of "Non-potential Drinking Water Source Area" and is at least 100 acres in size; and
 - d. the municipality(ies) overlying the groundwater and any public water systems with existing legal authority to develop new sources of drinking water in the area affected by the petition have sufficient water from other sources to meet their needs for future drinking water supplies, and to fulfill any current contractual obligations for the provision of water to other parties.
 2. The petitioner(s) shall provide a reasonable opportunity for public comment on the proposed petition. Such opportunity shall include but not be limited to:
 - a. establishment of a specific period of time in which written public comment can be submitted to the party preparing the petition. Such comment period shall not be less than 30 calendar days;
 - b. a public meeting to be held within the public comment period for the purpose of hearing comments on the proposed petition. Such meeting shall be conducted at a time and place convenient to the public;
 - c. notice of the comment period and meeting shall be provided to:
 - i. the public using a public notice pursuant to 310 CMR 40.1403(2)(b) in a newspaper of general circulation in the municipalities in the river basin in which the aquifer is located and which are hydrologically connected and downgradient to the area affected by the petition;
 - ii. the public in the *Environmental Monitor*;
 - iii. the public by posting the notice on a publicly accessible location in the municipal office and on any local access cable television station that serves the municipalities described in 310 CMR 40.0932(5)c.1.;

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- iv. the Chief Municipal Official(s) of (a) the municipality(ies) located within the boundaries of the river basin in which the groundwater is located and which are hydrologically connected and downgradient to the area affected by the petition, (b) municipalities abutting the municipality containing the area proposed to be designated as a Non-potential Drinking Water Source Area; and (c) municipalities abutting the abutters;
 - v. any party with a currently effective contract with the municipality(ies) for sale or purchase of drinking water to or from the aquifer or portion thereof subject to the petition;
 - vi. any public water system providing water or operating a drinking water well within the municipality(ies) in which the groundwater is located and in downgradient municipalities in the subject aquifer; and
 - vii. any person holding a registration or permit under the Water Management Act (M.G.L. c. 21G) for withdrawal of water from the aquifer or portion thereof subject to the petition.
- d. The notice required by 310 CMR 40.0932(5)(c)2.c. shall describe the designation sought, the area to which it would apply, the basis for the petition, how to obtain a copy of the proposed petition, the location and time of the public meeting, and how to submit comments. Such notice shall be provided no later than the first day of the comment period, and not less than 14 calendar days prior to the public meeting;
- e. a summary of all comments received shall be prepared after the close of the comment period, noting which comments have been incorporated into the petition and providing an explanation of why others have not. A copy of such summary shall be provided to each person who submitted written comments, and submitted to the Department with the petition.
3. Petitions shall include:
- a. a demonstration that the petition meets the criteria for a Case-specific Designation in 310 CMR 40.0932(5)(c)1.;
 - b. a water resource budget containing:
 - i. an inventory of current water supplies and authorized water withdrawal volumes pursuant to MGL c. 21G from the aquifer or portion thereof subject to the petition;
 - ii. forecasts of water demands for the municipality(ies) in which the ground-water is located, any municipality in which the groundwater plume may be located in the future, and abutting municipalities (such forecasts shall be prepared using the methodology accepted for implementation of 310 CMR 36.00: *Massachusetts Water Resources Management Program* for forecasting future water needs, using the most current data available);
 - iii. a description of the water resources that will be used to meet the demands identified in 310 CMR 40.0932(5)(c)3.b.2., including the role of the aquifer subject to the petition in meeting such demands, and an analysis of the impact of the development of any future water supply on stream flow, fisheries and wildlife resources, agricultural and other water users;
 - iv. supporting data describing basin hydrology, land uses, existing interconnections to serve other municipalities, interconnections that have been approved but not yet developed to serve other municipalities, and population trends;
 - c. documentation of technical and legal actions to protect existing and future drinking water sources;
 - d. a map of the aquifer showing the area proposed for exclusion from a Potential Drinking Water Source Area;
 - e. in those cases where the petition addresses a portion of the aquifer, a description of the hydrogeologic relationship between that portion and the larger aquifer (*i.e.*, in terms of groundwater flow direction, presence of hydrogeologic barriers);
 - f. documentation of the public comment period and meeting, and a copy of the summary of comments received required by 310 CMR 40.0932(5)(c)2.e.;

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- g. one of the following:
 - i. a certification of concurrence by the Chief Municipal Officer of the municipality(ies) in which the groundwater subject to the petition is located and/or any public water systems with existing legal authority to develop new sources of drinking water in the area affected by the petition, stating "The [municipality(ies)] [public water system(s)] [has][have] sufficient water from other sources to meet its [their] need for future drinking water supplies, including the fulfillment of any contractual obligations for the provision of water to other parties". Such certification shall also include a statement that (a) in the event that the groundwater will be used in the future as a public drinking water supply, an assessment shall be performed to determine whether additional response actions or well-head treatment are needed to achieve GW-1 standards and such assessment shall be submitted to the Department with an application for a New Source Approval in accordance with 310 CMR 22.00: *Drinking Water*; and b) that any existing contractual obligations to provide water of potable quality from the groundwater subject to the petition to other parties will not be affected by approval of the petition; or
 - ii. a written statement describing the reasons for not supplying the certification in 310 CMR 40.0932(5)(c)3.g.1. by the municipality(ies) in which the groundwater subject to the petition is located or public water systems with existing legal authority to develop new sources of drinking water in the area affected by the petition; or
 - iii. a copy of a written request for the certification in 310 CMR 40.0932(5)(c)3.g.1.; evidence that such request was received by the appropriate entity(ies); and a certification by the petition sponsor that such certification has not been provided within a period of at least ninety days from the date of the written request.
- 4. The portions of the petition described in 310 CMR 40.0932(5)(c)3.a. through e. shall be available to the public no later than the date on which the public comment period begins.
- 5. Petitions shall be submitted to the Department, which shall review the petition and determine whether it is complete. Incomplete petitions will be returned to the applicant with a request for submittal of necessary information within a specified time period. If the requested information is not supplied within the specified time period, the application will be considered to be withdrawn.
- 6. The Commissioner shall request that the Massachusetts Water Resources Commission review complete applications. Such request shall be made at least 60 days prior to issuing a determination.
- 7. The Commissioner shall issue a determination not later than 30 days following receipt of a recommendation from the Water Resources Commission as to the disposition of the petition, based on whether the petition meets the criteria established by 310 CMR 40.0932(5)(c)1., as demonstrated by:
 - a. supporting documentation provided pursuant to 310 CMR 40.0932(5)(c)3.;
 - b. comments submitted during the public comment period pursuant to 310 CMR 40.0932(5)(c)2. and the petitioner's steps taken to address public concerns; and
 - c. any other information available to the Department and the Water Resources Commission.
- 8. The Commissioner may issue a draft determination and request additional public comment and/or review by the Water Resources Commission. Such tentative decision shall establish a timeframe for the additional public comment or Water Resources Commission review, and for issuing a final determination.
- (d) Existing Private Wells. Groundwater that is categorized as a Current Drinking Water Source Area solely due to its location within 500 feet of a private water supply well need not be categorized as GW-1 if:
 - 1. the private water supply well is removed from service as a source of drinking water and the following conditions are met:
 - a. written documentation has been submitted to the Department demonstrating that the property(ies) served by the private water supply well has been connected to a public water supply system; and

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- b. written documentation has been submitted to the Department demonstrating the absence of any unpermitted cross-connection between the private water supply well and public water system or that the private well has been properly abandoned; and
 - c. where the private well is maintained for uses other than as a private water supply, written documentation has been submitted to the Department in the risk characterization pursuant to 310 CMR 40.0900 demonstrating that such other uses are consistent with a level of No Significant Risk and a Notice of Activity and Use Limitation implemented in accordance with 310 CMR 40.1074 which identifies the use of the private well as a drinking water source as a use which is inconsistent with maintaining a level of No Significant Risk; and
 - d. copies of the written documentation described in 310 CMR 40.0932(5)(d)1.a. through c. are provided to the local Board of Health; or
2. it is demonstrated that there is no hydrogeologic connection between the groundwater and the private water supply well, based on an investigation and evaluation of site-specific conditions, including, but not limited to, as appropriate, the investigation and evaluation of site stratigraphic, potentiometric, and geochemical conditions, and the depth and construction of the private well. The absence of site contaminants in the private well does not, by itself, constitute such a demonstration.
 3. the private water supply did not exist at the time of notification pursuant to 310 CMR 40.0300 or was not installed in conformance with applicable laws, by-laws or regulations.
- (e) Zone A. Groundwater that is categorized as a Current Drinking Water Source Area solely due to its location within a Zone A need not be categorized as GW-1 if it is demonstrated that there is no hydrogeologic connection between the groundwater and the Class A surface drinking water source, based on an investigation and evaluation of site-specific conditions, including, but not limited to, as appropriate, an investigation and evaluation of site stratigraphic, potentiometric, and geochemical conditions.
 - (f) The provisions of 310 CMR 40.0932(5)(a) through (d) apply to specific criteria for the inclusion of an area in the GW-1 category. Nothing in 310 CMR 40.0932(5) shall limit the applicability of any other criteria described in 310 CMR 40.0932(4)(a) or (b) to the categorization of groundwater at a disposal site.

(6) Groundwater Category GW-2. Groundwater shall be defined to be in category GW-2 if it is located within 30 feet of an existing or planned building or structure that is or will be occupied, and the average annual depth to groundwater in that area is 15 feet or less. Category GW-2 groundwater is considered to be a potential source of vapors of oil and/or hazardous material to indoor air. Construction of a building in an area in which the average annual depth to groundwater is 15 feet or less will change the groundwater category at the site to include GW-2; change the activities, uses and/or exposures at the disposal site; and may negate the notification exemption described at 310 CMR 40.0317(17).

40.0933 Identification of Applicable Soil Categories

Soil shall be classified as either category S-1, S-2 or S-3. The site, receptor and exposure information identified in 310 CMR 40.0904 through 40.0929, considering both the current and reasonably foreseeable Site Activities and Uses identified in 310 CMR 40.0923, shall be used in conjunction with the criteria listed below to categorize the soil.

- (1) The soil categories shall be applicable to specific volumes of soil which shall be described in written and graphic form in the documentation of the Risk Characterization.
- (2) The three soil categories describe a range of the potential for exposure to that soil: Category S-1 soils are associated with the highest potential for exposure, Category S-3 soils have the lowest potential for exposure. While one and only one category is applicable to a specified volume of soil, soils in different areas of a disposal site may be classified in different categories, depending upon their exposure potential.
- (3) The Table in 310 CMR 40.0933(9) contains a matrix summarizing the criteria used to categorize soil.

40.0933: continued

(4) For the purpose of soil categorization, the potential for exposure is described by a qualitative analysis of the accessibility of the soil in combination with the information about the Site Activities and Uses determined pursuant to 310 CMR 40.0923. The following definitions shall be used to describe exposure potential for the purposes of categorizing soil:

(a) Frequency of use shall indicate how often a receptor makes use of, or has access to, the disposal site. Receptor access to and use of the areas around the disposal site are often strong indicators of potential site access and thus should be considered in determining frequency of use for the site under investigation. Frequency of use shall be described as either "High", "Low" or "Not Present", using the following criteria:

1. Children's frequency of use shall be characterized as high if:
 - a. any children reside, attend school or attend day care at the disposal site; or
 - b. large numbers of children visit the disposal site, regardless of any one child's frequency of visitation.
2. Adults' frequency of use shall be characterized as high when they reside at the disposal site, or when they work at the disposal site on a continuing basis [*i.e.*, full days or shifts of eight or more hours per day on a continuing basis].
3. Children's or adults' frequency of use shall be characterized as low when they are present at the disposal site, but only as infrequent visitors; or when workers are present at the disposal site for only short periods of time [*i.e.*, less than two hours per day on a continuing basis, or for full days or shifts on a sporadic basis].
4. It shall be presumed that children may be present at the disposal site unless it can be demonstrated that access by children age 15 and younger is specifically restricted or that such children are highly unlikely to be present, in which case children may be considered to be "Not Present". Disposal sites which are residential properties shall presume the presence of children unless there is clear and convincing evidence to the contrary.
5. The frequency of use for activities not described above shall be characterized in the documentation of the Risk Characterization as either high or low.

(b) Intensity of use shall describe the nature of the Site Activities and Uses which could potentially result in exposure to the receptor. Intensity of use shall be described as either "High" or "Low", using the following criteria:

1. Site Activities and Uses which have the potential to disturb soil and thus result in either direct contact with the soil itself or inhalation of soil-derived dust shall be characterized as high intensity use. Examples of such activities include, without limitation, gardening, digging, and recreational sports.
2. Passive activities which do not disturb the soil, such as walking, shopping, and bird watching shall be characterized as low intensity use.
3. The intensity of use for each identified Site Activity and Use shall be characterized in the documentation of the Risk Characterization as either high or low with appropriate justification.

(c) Accessibility of the soil to potential receptors shall be characterized as either "accessible," "potentially accessible," or "isolated" using the following criteria:

1. Soil shall be characterized as "accessible" if it is located less than three feet below the surface, and the surface is not completely covered by pavement. For buildings having earthen floors, the floor shall be considered as the soil surface.
2. Soil shall be characterized as "potentially accessible" if it is located at a depth of three - 15 feet below the surface (with or without pavement), or if the soil is located less than three feet from the surface in an area completely paved.
3. Soil shall be characterized as "isolated" if it is located at a depth greater than 15 feet below the surface, or if the soil is covered completely by a building or other permanent structure which does not have earthen floors, regardless of depth. Soil located at a depth greater than three feet below the earthen floor of a building or other permanent structure shall also be characterized as "isolated."

(5) Category S-1. Soil shall be classified as category S-1 if either:

- (a) the soil of concern is accessible, pursuant to 310 CMR 40.0933(4)(c)1., and either:
1. the soil is currently used for growing fruits or vegetables for human consumption, or if it is reasonably foreseeable that the soil may be put to such use; or
 2. a child's frequency or intensity of use is considered to be high pursuant to 310 CMR 40.0933(4)(a) and (b); or

40.0933: continued

3. an adult's frequency and intensity of use are both considered to be high pursuant to 310 CMR 40.0933(4)(a) and (b); or
 - (b) the soil is potentially accessible, pursuant to 310 CMR 40.0933(4)(c)2., and a child's frequency and intensity of use are both considered to be high pursuant to 310 CMR 40.0933(4)(a) and (b).
- (6) Category S-2. Soil shall be classified as category S-2 if either:
- (a) the soil is accessible, pursuant to 310 CMR 40.0933(4)(c)1.; and
 1. a child's frequency and intensity of use are both considered to be low pursuant to 310 CMR 40.0933(4)(a) and (b); or
 2. children are not present at the disposal site and either (but not both) the adults' frequency or intensity of use is considered to be high, pursuant to 310 CMR 40.0933(4)(a) and (b); or
 - (b) the soil is potentially accessible, pursuant to 310 CMR 40.0933(4)(c)2.; and
 1. either (but not both) a child's frequency or intensity of use is considered to be high pursuant to 310 CMR 40.0933(4)(a) and (b); or
 2. children are not present at the disposal site and an adult's frequency and intensity of use are both considered to be high pursuant to 310 CMR 40.0933(4)(a) and (b).
- (7) Category S-3. Soil shall be classified as category S-3 if either:
- (a) the soil is accessible, pursuant to 310 CMR 40.0933(4)(c)1., and children are not present at the disposal site and an adult's frequency and intensity of use are both considered to be low pursuant to 310 CMR 40.0933(4)(a) and (b); or
 - (b) the soil is potentially accessible pursuant to 310 CMR 40.0933(4)(c)2.; and
 1. a child's frequency and intensity of use are both considered to be low pursuant to 310 CMR 40.0933(4)(a) and (b); or
 2. a demonstration has been made that children are not present at the disposal site, and either an adult's frequency or intensity of use is considered to be low pursuant to 310 CMR 40.0933(4)(a) and (b); or
 - (c) the soil is isolated pursuant to 310 CMR 40.0933(4)(c)3., regardless of any receptor's frequency or intensity of use.
- (8) Whenever and wherever reasonable doubts exist over the selection of the appropriate soil category, the soil category associated with the highest exposure potential (among the soil categories being considered) shall be selected.
- (9) Table listed in 310 CMR 40.0933(9) contains the Soil Category Selection Matrix.

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Table 40.933(9)

SOIL CATEGORY SELECTION MATRIX - HUMAN EXPOSURE POTENTIAL

Accessibility ↓ of Soil ↓	RECEPTOR CHARACTERISTICS							
	CHILDREN PRESENT				ADULTS <u>ONLY</u> PRESENT			
	<u>HIGH FREQUENCY</u>		<u>LOW FREQUENCY</u>		<u>HIGH FREQUENCY</u>		<u>LOW FREQUENCY</u>	
	High Intensity	Low Intensity	High Intensity	Low Intensity	High Intensity	Low Intensity	High Intensity	Low Intensity
ACCESSIBLE (SURFICIAL) SOIL 0 ≤ 3' (unpaved)	CATEGORY S-1		S-2		S-1	CATEGORY S-2		
POTENTIALLY ACCESSIBLE SOIL 3 ≤ 15' (unpaved) or 0 ≤ 15' (paved)			CATEGORY S-2		S-2	CATEGORY S-3		
ISOLATED SUB- SURFACE SOILS > 15' or under the footprint of a building or permanent structure	CATEGORY S-3							
* - Category S-1 also applies to any accessible soil where the current or reasonably foreseeable use of the soil is for growing fruits and vegetables for human consumption.								

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40.0940: Methods for Characterizing Risk of Harm40.0941: Approaches to Characterizing Risk of Harm

Several approaches may be employed to characterize the risk of harm to health, safety, public welfare and the environment. The specific Risk Characterization approach used shall depend upon the nature of the risk being assessed, the response action being performed and the nature of the disposal site.

(1) The methodology used to evaluate site conditions which may pose an Imminent Hazard is described in 310 CMR 40.0950 through 40.0959. This methodology shall be used to determine if notification is required pursuant to 310 CMR 40.0321, and if an Immediate Response Action is required by 310 CMR 40.0411 through 40.0429 to abate, prevent, or eliminate an Imminent Hazard.

(2) The methodology used to evaluate the risk of harm to safety shall be as described in 310 CMR 40.0960. A characterization of the risk of harm to safety is required at all disposal sites to determine the need for a response action or to demonstrate that a level of no significant risk of harm to safety exists or has been achieved.

(3) One of the following three options shall be used to determine the need for a remedial action or to demonstrate that a level of no significant risk of harm to health, public welfare and the environment exists or has been achieved:

- (a) the characterization of the risk through the use of promulgated standards (hereafter referred to as Method 1), described in 310 CMR 40.0970 through 40.0979; or
- (b) the characterizations of risk through the application of promulgated standards supplemented by site-specific information, described in 310 CMR 40.0980 through 40.0989 (hereafter referred to as Method 2); or
- (c) the characterizations of risk through the application of site-specific methodologies, described in 310 CMR 40.0990 through 40.0999 (hereafter referred to as Method 3).

40.0942: Selection of Method to Characterize the Risk of Harm to Health, Public Welfare and the Environment

The three Methods for Risk Characterization described in 310 CMR 40.0941(3) have been developed to provide a range of approaches which vary in detail and circumstances of use, each of which provides equivalent levels of protection to health, public welfare and the environment. Any of the three Risk Characterization Methods may be employed at a disposal site, subject only to the following limitations:

(1) Method 1 relies upon the use of numerical standards for chemicals in groundwater and soil to characterize risk of harm to health, public welfare and the environment. These standards are referred to as "MCP Method 1 Standards," and are listed in 310 CMR 40.0970 through 40.0979. Method 1 shall only be used to characterize risk at a disposal site if there is a promulgated MCP Method 1 Standard for each oil and hazardous material of concern at the disposal site.

(a) If no MCP Method 1 Standard has been promulgated for one or more oil or hazardous material in soil or groundwater at the disposal site, then the following options are available:

- 1. The RP, PRP or Other Person may develop such standards under Method 2. Such standards may be used alone or in combination with other MCP Method 1 Standards to characterize risk at the disposal site. A combined Method 1 and Method 2 approach shall be considered a Method 2 Risk Characterization; or
- 2. Method 3 alone may be used to characterize risk at the disposal site.

(b) If oil or hazardous material at the disposal site is present in, or is likely to migrate at potentially significant concentrations to an environmental medium in addition to groundwater and soil (such as in sediments, within surface water, or within ambient or indoor air), then Method 1 alone shall not be used to characterize the risk at the disposal site, and the following options are available:

40.0942: continued

1. If it is demonstrated that the current or foreseeable future human exposure to the oil and/or hazardous material would occur predominantly through contact with the groundwater or soil, then the MCP Method 1 Standards may be used to characterize the risk of harm to human health posed by the disposal site. Method 3 then would be used to characterize the risk of harm to public welfare and the environment posed by the contamination in all other affected media. Such an approach shall be considered to be a combined Method 1 and Method 3 Risk Characterization; or
 2. Method 3 alone may be used to characterize risk at the disposal site.
- (c) If Environmental Receptors have been identified for the disposal site as described in 310 CMR 40.0922, and if oil and/or hazardous material known to bioaccumulate are present within two feet of the ground surface, then Method 1 alone shall not be used to characterize the risk at the disposal site, and the following options are available:
1. The MCP Method 1 Standards may be used in combination with a Method 3 Stage I Environmental Screening to characterize the risk of harm to health, public welfare and the environment. Such an approach shall be considered to be a combined Method 1 and Method 3 Risk Characterization; or
 2. Method 3 alone may be used to characterize risk at the disposal site.
- (d) If one or more Volatile Organic Compounds is present in vadose zone soil adjacent to an occupied structure (within six feet, measured horizontally from the wall of the structure, and within ten feet, measured vertically from the basement floor or foundation slab) then the soil has the potential to result in significant indoor air concentrations of OHM and Method 1 alone cannot be used to characterize the risk at the disposal site. The following options are available:
1. The MCP Method 1 Standards may be used in combination with a demonstration that the soil concentrations of Oil and Hazardous Material are not likely to be a significant contributor to the Cumulative Receptor Risk at the site by the indoor air exposure pathway.
 2. MCP Method 3 alone may be used to characterize risk at the disposal site.
- (e) If the current and/or reasonably foreseeable future use of the site includes non-commercial gardening of edible produce pursuant to 310 CMR 40.0923, then the following options are available:
1. Method 1 alone may be used, if otherwise applicable; or
 2. A Method 3 Risk Characterization may be used to characterize risk at the site. The risk associated with the ingestion of produce from non-commercial gardening must be quantitatively evaluated in the Method 3 Risk Characterization unless the exposure pathway has been addressed through the implementation (for current use) and/or recommendation (for reasonably foreseeable future use) of Best Management Practices for Non-commercial Gardening. The Risk Characterization and Permanent Solution with Conditions must include documentation and discussion of the concentrations of contaminants in the soil, acknowledgement of the potential for uptake into the edible portions of the plant and the potential for exposure that may result from harvesting and consuming the produce, and description of the Best Management Practices that minimize or eliminate such exposure.

(2) Method 2 allows the consideration of limited site-specific information to supplement the use of MCP Method 1 Standards for groundwater and soil. As a result, the limitations and options described for the use of Method 1 in 310 CMR 40.0942(1) are also applicable to the use of Method 2.

(3) Method 3 may be used at any disposal site to characterize the risk of harm to health, public welfare and the environment.

40.0950: Imminent Hazard Evaluations and Substantial Hazard Evaluations

40.0951: Purpose and Scope of Imminent Hazard Evaluations

(1) The site shall be evaluated to determine if an Imminent Hazard exists in accordance with 310 CMR 40.0000. The decision to conduct a quantitative Imminent Hazard Evaluation shall use the Response Action Performance Standard (RAPS) described in 310 CMR 40.0191, and consider the location and nature of the oil and/or hazardous material, the Human or Environmental Receptors which may be exposed, and appropriate guidance published by the

Department.

(2) If the results of this assessment indicate that the conditions at the site pose an Imminent Hazard based upon the criteria described in 310 CMR 40.0955, the Department shall be notified in accordance with 310 CMR 40.0311(7). Subsequent assessments performed as part of an Immediate Response Action shall consider the weight of evidence indicating the potential for an Imminent Hazard when making the evaluations described in 310 CMR 40.0426.

40.0951: continued

(3) Notwithstanding the provisions of 310 CMR 40.950, the concentration of each oil or hazardous material present in a system of water supply used by a public water system, as defined in 310 CMR 22.00: *Drinking Water*, shall not pose an Imminent Hazard or Substantial Hazard for current conditions if the public water system is in compliance with all applicable provisions of 310 CMR 22.00: *Drinking Water* and any other requirements specified by the Department pursuant to its authority under M.G.L. c. 111, § 160 and 310 CMR 22.00: *Drinking Water*.

40.0953: Exposures to be Considered in Imminent Hazard Evaluations

The focus of an Imminent Hazard Evaluation shall be on actual or likely exposures to Human and Environmental Receptors under current site conditions, considering the current use(s) of the disposal site and the surrounding environment, and considering an appropriate short period of time.

(1) The short period of time considered in the evaluation shall be five years unless site circumstances indicate that a shorter time period is appropriate. The specific time period shall be selected in consideration of the nature of the hazard under investigation and the projected time until a Comprehensive Response Action could be completed, in order to determine the need for an Immediate Response Action.

(2) For the evaluation of soil-related exposures, the levels of oil and/or hazardous material at the ground surface or within twelve inches of the ground surface shall be considered in the development of the Exposure Point Concentrations.

(3) For the evaluation of drinking water exposures, the levels of oil and/or hazardous material in the groundwater or surface water which serves as the source of the drinking water shall be considered in the development of the Exposure Point Concentrations.

(4) Hot Spots shall be the primary, but not exclusive, focus of an Imminent Hazard Evaluation, provided that they are located in areas of actual or likely human exposure under current site conditions.

(5) If a small subset of oil and/or hazardous material are likely to dominate the risk estimates based upon their concentration and toxicity, then the Imminent Hazard Evaluation may be limited to those chemicals.

(6) As indicated by the site conditions, the Imminent Hazard Evaluation shall consider acute, subchronic and/or chronic exposures to the oil and/or hazardous material. The Exposure Point Concentrations shall be developed to reflect the type of exposure being evaluated. The use of upper percentile or maximum concentrations may be appropriate for certain evaluations, and shall be considered as described at 310 CMR 40.0926.

(7) The Imminent Hazard Evaluation shall be conducted in a manner which results in conservative estimates of potential exposures.

(8) The documentation of the Imminent Hazard Evaluation shall clearly identify and explain the basis for exposure parameters chosen for the Risk Characterization.

40.0955: Imminent Hazard Risk Characterization and Outcome

Risk Characterizations for Imminent Hazard Evaluations shall be conducted separately for safety, human health, and the environment, depending on the type of condition that triggered the need for the evaluation, in accordance with the following methods:

(1) The characterization of the risk of harm to safety shall be conducted as described in 310 CMR 40.0960. The conditions at the disposal site pose an Imminent Hazard based on safety concerns if a condition of no significant risk to safety has not been achieved at the disposal site under conditions which actually exist or are about to occur.

40.0955: continued

(2) The characterization of the risk of harm to human health shall be conducted using Method 3, as described in 310 CMR 40.0993.

(a) The toxicity information used to characterize risk shall be consistent with the type and duration of exposure under evaluation, and shall be clearly identified and documented. Primary consideration shall be given to information developed by the Massachusetts Department of Environmental Protection for the purpose of conducting such risk assessments. Examples of such toxicity information include:

1. Reference Doses and Reference Concentrations; and
2. Carcinogenic Slope Factors and Unit Risk values.

(b) The conditions at the disposal site pose an Imminent Hazard based upon the potential for carcinogenic health effects if, for the oil and/or hazardous material evaluated and for each receptor, the estimated Excess Lifetime Cancer Risk is equal to or greater than a cancer risk limit which is an Excess Lifetime Cancer Risk equal to one-in-100,000.

(c) The conditions at the disposal site pose an Imminent Hazard based upon the potential for non-cancer health effects if, for the oil and/or hazardous material evaluated and for each receptor, the non-cancer risk calculated is equal to or greater than a non-cancer risk limit of:

1. a Hazard Index (or equivalent ratio of exposure) equal to one for oil or hazardous materials that have the potential to cause serious effects (including but not limited to lethal, developmental, or neurological effects) following short-term exposures, for example lead or cyanide; and
2. a Hazard Index equal to ten for all other oil or hazardous materials.

(d) A release to the environment which produces readily apparent effects to human health poses an Imminent Hazard. A quantitative evaluation of such exposures is not required.

(e) The mathematical equations used to calculate the risk estimates shall be clearly presented and documented.

(3) The risk of harm to the environment shall be characterized based on the data collected pursuant to the response action being performed and the site, receptor, and exposure information identified in 310 CMR 40.0995. The following conditions shall constitute an Imminent Hazard to the environment:

- (a) evidence of stressed biota attributable to the release at the disposal site, including, without limitation, fish kills or abiotic conditions; or
- (b) a release to the environment of oil or hazardous material which produces immediate or acute adverse impacts to freshwater or saltwater fish populations.

(4) The documentation of the Imminent Hazard Evaluation shall clearly state whether the conditions at the disposal site pose an Imminent Hazard based upon the criteria described in 310 CMR 40.0955(1) through (3).

40.0956: Substantial Hazard Evaluation

(1) The focus of a Substantial Hazard Evaluation shall be on possible exposures to Human and Environmental Receptors, considering the current use(s) of the disposal site and the surrounding environment and, where applicable, any Activity and Use Limitation for the site. A Substantial Hazard Evaluation shall not include fish consumption where a fish advisory has been put in place by the Commonwealth of Massachusetts or the federal government and the public is fully informed of the advisory by signage and/or other communication media.

(a) A condition of No Substantial Hazard to Health would exist if, for an appropriate Exposure Period, no Cumulative Receptor Cancer Risk and no Cumulative Receptor Non-cancer Risk is greater than the Cumulative Receptor Risk Limits specified at 310 CMR 40.0993(6);

(b) The period of exposure to be considered shall be equal to or greater than the time from Notification to the date that the Substantial Hazard evaluation is conducted, plus five years; and

(c) A quantitative evaluation of human health risk is not required if there is no current exposure to oil and/or hazardous material at the disposal site.

40.0956: continued

(2) The focus of an Ecological Substantial Hazard Evaluation shall be on any environmental resource areas, such as wetlands, aquatic and terrestrial habitats, and fisheries that exist at a site. A condition of No Substantial Hazard to the Environment would exist if steps have been taken to eliminate or mitigate the following conditions, where applicable, affecting an environmental resource at a site:

- (a) Evidence of stressed biota attributable to the release at the disposal site, including, without limitation, fish and wildlife kills or abiotic conditions;
- (b) The visible presence of oil, tar or other separate phase hazardous material in soil within three feet of the ground surface over an area equal to or greater than two acres, or over an area equal to or greater than 1000 square feet in sediment within one foot of the sediment surface;
- (c) Continuing discharge of contaminated groundwater to surface water where the surface water concentrations of the oil or hazardous material attributable to the release already exceed Massachusetts Surface Water standards;
- (d) Continuing discharge of contaminated groundwater to surface water where surface water and/or sediment concentrations of Oil and/or Hazardous Material attributable to the release already pose a significant risk;
- (e) Migration of oil or hazardous material to additional environmental media or resource area where resultant exposures would have the potential to pose a significant risk of harm in the future; and
- (f) Ecological risk or harm such that recovery would be substantially more difficult or would require more time if conditions were to remain unremediated for even a short period of time.

(3) No assessment of Substantial Hazard is required if a condition of No Significant Risk exists and the site meets the requirements for a Permanent Solution.

40.0960: Characterization of Risk to Safety

(1) The risk of harm to safety shall be characterized based on the data collected pursuant to the response action being performed and the site, receptor, and exposure information identified in 310 CMR 40.0904 through 40.0933.

(2) The risk of harm to safety shall be characterized by comparing current and reasonably foreseeable conditions at the disposal site and in the surrounding environment to applicable or suitably analogous safety standards.

(3) A level of no significant risk to safety exists or has been achieved if the conditions at the disposal site which are related to a release of oil and/or hazardous material do not currently and will not in the foreseeable future pose a threat of physical harm or bodily injury to people. Such release-related conditions may include, but are not limited to:

- (a) the presence of rusted or corroded drums or containers, open pits, lagoons or other dangerous structures;
- (b) any threat of fire or explosion, including the presence of explosive vapors resulting from a release of oil and/or hazardous material; and
- (c) any uncontained materials which exhibit the characteristics of corrosivity, reactivity or flammability described at 310 CMR 40.0347.

(4) The documentation of the Risk Characterization shall clearly state whether or not a condition of no significant risk of harm to safety exists or has been achieved at the disposal site.

40.0970: Method 1 Risk Characterization

40.0971: Applicability of Method 1

(1) Method 1 may be used to characterize the risk of harm to health, public welfare and the environment at disposal sites where assessments conducted in accordance with 310 CMR 40.0000 have determined that the presence of oil and/or hazardous material is limited to soil and/or groundwater.

40.0971: continued

- (2) If contamination is present in one or more environmental media other than soil or groundwater, Method 1 shall not be used, except as described in 310 CMR 40.0942(1)(b). Persistent odors in ambient or indoor air resulting from a release of oil and/or hazardous material to the environment shall prohibit the use of Method 1, except as described in 310 CMR 40.0942(1)(b)1.
- (3) If oil or hazardous material that are known to bioaccumulate are present within two feet of the ground surface, and Environmental Receptors have been identified pursuant to 310 CMR 40.0922, then Method 1 shall not be used, except as described in 310 CMR 40.0942(1)(c).
- (4) The documentation of the Risk Characterization shall affirm and document the applicability of Method 1 to the disposal site.
- (5) A Method 1 Risk Characterization shall be conducted in combination with a separate characterization of the risk of harm to safety, as described in 310 CMR 40.0960.

40.0972: General Approach to Method 1

A Method 1 Risk Characterization compares the conditions at the disposal site to promulgated MCP Method 1 Standards. Each list of groundwater and soil standards has been developed by the Department considering a defined set of exposures considered to be a conservative estimate of the potential exposures at most sites. The exposures assumed by the Department correspond to the groundwater and soil categories described in 310 CMR 40.0932 and 40.0933. The Exposure Points and Exposure Point Concentrations shall be identified in a manner consistent with those categories, such that the concentrations of oil and/or hazardous material detected in soil and groundwater shall be compared directly to the MCP Method 1 Standards.

40.0973: Method 1 Risk Characterization

Under Method 1, the risk of harm to health, public welfare and the environment shall be characterized as follows:

- (1) The Method 1 Risk Characterization shall evaluate each current and reasonably foreseeable Site Activity and Use identified pursuant to 310 CMR 40.0923.
- (2) The groundwater and soil categories determined for the site in 310 CMR 40.0932 and 40.0933 shall be identified and documented.
- (3) The Exposure Point(s) in groundwater and soil for all current and reasonably foreseeable Site Activities and Uses shall be identified and documented as described in 310 CMR 40.0924.
- (4) The MCP Method 1 Standards assume exposure to the concentrations of oil and/or hazardous material in the soil and groundwater under current or foreseeable future conditions. For the Exposure Point Concentrations to be directly comparable to the MCP Method 1 Standards, they shall:
 - (a) be determined for each oil and/or hazardous material at each Exposure Point as described in 310 CMR 40.0926; and
 - (b) be representative of the actual concentration of oil and/or hazardous material at that Exposure Point, unmodified by other exposure assumptions.
- (5) The applicable MCP Method 1 Groundwater and Soil Standards shall be identified as described in 310 CMR 40.0974 and 40.0975, and listed in the documentation of the Risk Characterization.
- (6) The Exposure Point Concentrations identified in 310 CMR 40.0973(4) shall be compared to all applicable MCP Method 1 Standards identified in 310 CMR 40.0973(5).

40.0973: continued

(7) A condition of no significant risk of harm to health, public welfare and the environment exists if no Exposure Point Concentration is greater than the applicable MCP Method 1 Soil or Groundwater Standard. If the Method 1 Soil or Groundwater Standard for Total Petroleum Hydrocarbon is exceeded, a condition of No Significant Risk shall still be considered to exist if the Exposure Point Concentrations of the Aliphatic and Aromatic Hydrocarbon Fractions comprising the TPH are less than or equal to the applicable Method 1 Soil and Groundwater Standards.

(8) The documentation of the Method 1 Risk Characterization shall clearly state whether or not a condition of no significant risk of harm to health, public welfare and the environment exists or has been achieved at the disposal site.

40.0974: Identification of Applicable Groundwater Standards in Method 1

(1) The groundwater categories (GW-1, GW-2 and/or GW-3) identified for the disposal site per 310 CMR 40.0932 shall determine which column(s) of numerical standards listed in Table 1 are applicable to the groundwater. If multiple categories apply to the groundwater at the disposal site, the lowest of the applicable MCP Method 1 Groundwater Standards shall be used to characterize the risk of harm posed by the oil and/or hazardous material at the disposal site. The applicability of groundwater standards is independent of the classification of the soil at the disposal site.

40.0974: continued

(2) Table 1 Lists the Potentially Applicable MCP Method 1 Groundwater Standards.

310 CMR 40.0974(2): TABLE 1 ^{††}				
MCP Method 1 GROUNDWATER STANDARDS				
APPLICABLE IN AREAS WHERE THE GROUNDWATER IS CONSIDERED TO BE ONE OR MORE OF THE FOLLOWING CATEGORIES PER 310 CMR 40.0932				
Oil and/or Hazardous Material	CAS Number	GW-1 Standard ug/liter (ppb)	GW-2 Standard ug/liter (ppb)	GW-3 Standard ug/liter (ppb)
ACENAPHTHENE	83-32-9	20	NA	10,000
ACENAPHTHYLENE	208-96-8	40	10,000	40
ACETONE	67-64-1	6,300	50,000	50,000
ALDRIN	309-00-2	0.5	2	30
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120-12-7	100	NA	30
ANTIMONY	7440-36-0	6	NA	8,000
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440-38-2	10	NA	900
BARIUM	7440-39-3	2,000	NA	50,000
BENZENE	71-43-2	5	1,000	10,000
BENZO(a)ANTHRACENE	56-55-3	1	NA	1,000
BENZO(a)PYRENE	50-32-8	0.2	NA	500
BENZO(b)FLUORANTHENE	205-99-2	1	NA	400
BENZO(g,h,i)PERYLENE	191-24-2	50	NA	20
BENZO(k)FLUORANTHENE	207-08-9	1	NA	100
BERYLLIUM	7440-41-7	4	NA	200
BIPHENYL, 1,1-	92-52-4	2	200	50,000
BIS(2-CHLOROETHYL)ETHER	111-44-4	30	30	50,000
BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	30	100	50,000
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	6	NA	50,000
BROMODICHLOROMETHANE	75-27-4	3	6	50,000
BROMOFORM	75-25-2	4	700	50,000
BROMOMETHANE	74-83-9	10	7	800
CADMIUM	7440-43-9	5	NA	8
CARBON TETRACHLORIDE	56-23-5	5	2	5,000
CHLORDANE	12789-03-6	2	NA	2
CHLOROANILINE, p-	106-47-8	20	30,000	300
CHLOROBENZENE	108-90-7	100	200	1,000
CHLOROFORM	67-66-3	70	50	20,000
CHLOROPHENOL, 2-	95-57-8	10	20,000	7,000
CHROMIUM (TOTAL) *	7440-47-3	100	NA	300
CHROMIUM(III)	16065-83-1	100	NA	600
CHROMIUM(VI)	18540-29-9	100	NA	300
CHRYSENE	218-01-9	2	NA	70
CYANIDE **	57-12-5	200	NA	30
DIBENZO(a,h)ANTHRACENE	53-70-3	0.5	NA	40
DIBROMOCHLOROMETHANE	124-48-1	2	20	50,000
DICHLOROBENZENE, 1,2- (o-DCB)	95-50-1	600	8,000	2,000
DICHLOROBENZENE, 1,3- (m-DCB)	541-73-1	100	6,000	50,000
DICHLOROBENZENE, 1,4- (p-DCB)	106-46-7	5	60	8,000
DICHLOROBENZIDINE, 3,3'-	91-94-1	80	NA	2,000
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	72-54-8	0.2	NA	50
DICHLORODIPHENYL DICHLOROETHYLENE,P,P'- (DDE)	72-55-9	0.05	NA	400
DICHLORODIPHENYL TRICHLOROETHANE, P,P'- (DDT)	50-29-3	0.3	NA	1
DICHLOROETHANE, 1,1-	75-34-3	70	2,000	20,000
DICHLOROETHANE, 1,2-	107-06-2	5	5	20,000
DICHLOROETHYLENE, 1,1-	75-35-4	7	80	30,000
DICHLOROETHYLENE, CIS-1,2-	156-59-2	70	20	50,000
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	100	90	50,000
DICHLOROMETHANE	75-09-2	5	2,000	50,000
DICHLOROPHENOL, 2,4-	120-83-2	10	30,000	2,000
DICHLOROPROPANE, 1,2-	78-87-5	5	3	50,000
DICHLOROPROPENE, 1,3-	542-75-6	0.4	10	200
DIELDRIN	60-57-1	0.1	8	0.5

310 CMR 40.0974(2): TABLE 1 ^{††}				
MCP Method 1 GROUNDWATER STANDARDS APPLICABLE IN AREAS WHERE THE GROUNDWATER IS CONSIDERED TO BE ONE OR MORE OF THE FOLLOWING CATEGORIES PER 310 CMR 40.0932				
Oil and/or Hazardous Material	CAS Number	GW-1 Standard ug/liter (ppb)	GW-2 Standard ug/liter (ppb)	GW-3 Standard ug/liter (ppb)
DIETHYL PHTHALATE	84-66-2	2,000	50,000	9,000
DIMETHYL PHTHALATE	131-11-3	300	50,000	50,000
DIMETHYLPHENOL, 2,4-	105-67-9	60	40,000	50,000
DINITROPHENOL, 2,4-	51-28-5	200	50,000	20,000
DINITROTOLUENE, 2,4-	121-14-2	30	20,000	50,000
DIOXANE, 1,4-	123-91-1	0.3	5,000	50,000
ENDOSULFAN	115-29-7	10	NA	2
ENDRIN	72-20-8	2	NA	5
ETHYLBENZENE	100-41-4	700	20,000	5,000
ETHYLENE DIBROMIDE	106-93-4	0.02	2	50,000
FLUORANTHENE	206-44-0	90	NA	200
FLUORENE	86-73-7	40	NA	40
HEPTACHLOR	76-44-8	0.4	2	1
HEPTACHLOR EPOXIDE	1024-57-3	0.2	7	2
HEXACHLOROBENZENE	118-74-1	1	1	6,000
HEXACHLOROBUTADIENE	87-68-3	0.6	50	3,000
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	58-89-9	0.2	200	4
HEXACHLOROETHANE	67-72-1	8	100	50,000
HMX	2691-41-0	200	50,000	50,000
INDENO(1,2,3-cd)PYRENE	193-39-5	0.5	NA	100
LEAD	7439-92-1	15	NA	10
MERCURY	7439-97-6	2	NA	20
METHOXYCHLOR	72-43-5	40	NA	10
METHYL ETHYL KETONE	78-93-3	4,000	50,000	50,000
METHYL ISOBUTYL KETONE	108-10-1	350	50,000	50,000
METHYL MERCURY	22967-92-6	0.3	NA	20
METHYL TERT BUTYL ETHER	1634-04-4	70	50,000	50,000
METHYLNAPHTHALENE, 2-	91-57-6	10	2,000	20,000
NAPHTHALENE	91-20-3	140	700	20,000
NICKEL	7440-02-0	100	NA	200
PENTACHLOROPHENOL	87-86-5	1	NA	200
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) ***	-	0.02	NA	-
PERFLUORODECANOIC ACID (PFDA)	335-76-2	See PFAS	NA	40,000
PERFLUOROHEPTANOIC ACID (PFHpA)	375-85-9	See PFAS	NA	40,000
PERFLUOROHEXANESULFONIC ACID (PFHxS)	355-46-4	See PFAS	NA	500
PERFLUORONONANOIC ACID (PFNA)	375-95-1	See PFAS	NA	40,000
PERFLUOROOCTANESULFONIC ACID (PFOS)	1763-23-1	See PFAS	NA	500
PERFLUOROOCTANOIC ACID (PFOA)	335-67-1	See PFAS	NA	40,000
PERCHLORATE	-	2	NA	1,000
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON [†]	NA	200	5,000	5,000
ALIPHATIC HYDROCARBONS				
C5 through C8 Aliphatic Hydrocarbons	NA	300	3,000	50,000
C9 through C12 Aliphatic Hydrocarbons	NA	700	5,000	50,000
C9 through C18 Aliphatic Hydrocarbons	NA	700	5,000	50,000
C19 through C36 Aliphatic Hydrocarbons	NA	14,000	NA	50,000
AROMATIC HYDROCARBONS				
C9 through C10 Aromatic Hydrocarbons	NA	200	4,000	50,000
C11 through C22 Aromatic Hydrocarbons	NA	200	50,000	5,000
PHENANTHRENE	85-01-8	50	NA	10,000
PHENOL	108-95-2	900	50,000	2,000
POLYCHLORINATED BIPHENYLS (PCBs)	1336-36-3	0.5	5	10
PYRENE	129-00-0	70	NA	20
RDX	121-82-4	1	50,000	50,000
SELENIUM	7782-49-2	50	NA	50
SILVER	7440-22-4	100	NA	7
STYRENE	100-42-5	100	100	6,000
TETRACHLORODIBENZO-p-DIOXIN (TCDD), 2,3,7,8-(equivalents)	1746-01-6	3.E-05	NA	4.E-02
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	5	10	50,000
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	2	9	50,000

310 CMR 40.0974(2): TABLE 1 ^{††}				
MCP Method 1 GROUNDWATER STANDARDS APPLICABLE IN AREAS WHERE THE GROUNDWATER IS CONSIDERED TO BE ONE OR MORE OF THE FOLLOWING CATEGORIES PER 310 CMR 40.0932				
Oil and/or Hazardous Material	CAS Number	GW-1 Standard ug/liter (ppb)	GW-2 Standard ug/liter (ppb)	GW-3 Standard ug/liter (ppb)
TETRACHLOROETHYLENE	127-18-4	5	20	30,000
THALLIUM	7440-28-0	2	NA	3,000
TOLUENE	108-88-3	1,000	50,000	40,000
TRICHLOROBENZENE, 1,2,4-	120-82-1	70	200	50,000
TRICHLOROETHANE, 1,1,1-	71-55-6	200	4,000	20,000
TRICHLOROETHANE, 1,1,2-	79-00-5	5	900	50,000
TRICHLOROETHYLENE	79-01-6	5	5	5,000
TRICHLOROPHENOL, 2,4,5-	95-95-4	200	50,000	3,000
TRICHLOROPHENOL 2,4,6-	88-06-2	10	5,000	500
VANADIUM	7440-62-2	30	NA	4,000
VINYL CHLORIDE	75-01-4	2	2	50,000
XYLENES (Mixed Isomers)	1330-20-7	10,000	3,000	5,000
ZINC	7440-66-6	5,000	NA	900
NA - Not Applicable * - The Total Chromium standard is applicable in the absence of species-specific data for Chromium III and Chromium VI. ** - Cyanide expressed as Physiologically Available Cyanide (PAC). In the absence of measured Physiologically Available Cyanide, the standard is applicable to Total Cyanide. *** - The Per- and Polyfluoroalkyl Substances (PFAS) standard shall be compared to the sum of the concentrations of the following PFAS: perfluorodecanoic acid (PFDA), perfluoroheptanoic acid (PFHpA), perfluorohexanesulfonic acid (PFHxS), perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and perfluorononanoic acid (PFNA). The listed compounds and associated CAS numbers are for the acid forms of these PFAS compounds. The information presented in Table 1 are also applicable to the respective anionic forms of these compounds. These anions may form salts with any of a number of cations resulting in a variety of possible chemical species, each having a unique CAS number. † - The Total Petroleum Hydrocarbon (TPH) standard may be used as an alternative to the appropriate combinations of the Aliphatic and Aromatic Hydrocarbon Fraction standards. The use of the general TPH standard is a valid option only for C9 and greater petroleum hydrocarbons; it is not appropriate for the characterization of risks associated with lighter (gasoline-range) hydrocarbons. †† - The Department periodically reviews the scientific basis for these Standards and amends them, as appropriate, to incorporate new scientific information.				

40.0975: Identification of Applicable Soil Standards in Method 1

The MCP Method 1 Soil Standards consider both the potential risk of harm resulting from direct exposure to the oil and/or hazardous material in the soil and the potential impacts on the groundwater at the disposal site. The applicability of a specific numerical Standard is thus a function of both the soil and the groundwater category identified:

- (1) The category of soil (S-1, S-2, or S-3) at each Exposure Point determines which one of the three tables of MCP Method 1 Soil Standards is applicable.
- (2) The category of groundwater (GW-1, GW-2, and/or GW-3) at or near each Exposure Point determines which column of the applicable MCP Method 1 Soil Standards table are relevant to the soil at the Exposure Point. If more than one groundwater category is applicable at the disposal site, then multiple MCP Method 1 Soil Standards may be applicable to the soil of interest, and the lowest of those identified standards shall be selected to characterize the risk of harm.
- (3) The MCP Method 1 Soil Standards listed in Table 2 in 310 CMR 40.0975(6)(a) are applicable to soil determined to be category S-1.
- (4) The MCP Method 1 Soil Standards listed in Table 3 in 310 CMR 40.0975(6)(b) are applicable to soil determined to be category S-2.
- (5) The MCP Method 1 Soil Standards listed in Table 4 in 310 CMR 40.0975(6)(c) are applicable to soil determined to be category S-3.

(6) Tables 2, 3 and 4 List the Potentially Applicable MCP Method 1 Soil Standards.

310 CMR 40.0975(6)(a): TABLE 2 ^{††}				
MCP Method 1: SOIL CATEGORY S-1 STANDARDS				
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:				
Oil and/or Hazardous Material	CAS Number	S-1 SOIL & GW-1 ug/g (ppm)	S-1 SOIL & GW-2 ug/g (ppm)	S-1 SOIL & GW-3 ug/g (ppm)
ACENAPHTHENE	83-32-9	4	1,000	1,000
ACENAPHTHYLENE	208-96-8	2	600	10
ACETONE	67-64-1	6	50	400
ALDRIN	309-00-2	0.09	0.09	0.09
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120-12-7	1,000	1,000	1,000
ANTIMONY	7440-36-0	20	20	20
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440-38-2	20	20	20
BARIUM	7440-39-3	1,000	1,000	1,000
BENZENE	71-43-2	2	40	40
BENZO(a)ANTHRACENE	56-55-3	20	20	20
BENZO(a)PYRENE	50-32-8	2	2	2
BENZO(b)FLUORANTHENE	205-99-2	20	20	20
BENZO(g,h,i)PERYLENE	191-24-2	1,000	1,000	1,000
BENZO(k)FLUORANTHENE	207-08-9	200	200	200
BERYLLIUM	7440-41-7	100	100	100
BIPHENYL, 1,1-	92-52-4	0.05	6	200
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.7	0.7	2
BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	0.7	0.7	30
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	100	100	100
BROMODICHLOROMETHANE	75-27-4	0.1	0.1	40
BROMOFORM	75-25-2	0.1	1	300
BROMOMETHANE	74-83-9	0.5	0.5	30
CADMIUM	7440-43-9	80	80	80
CARBON TETRACHLORIDE	56-23-5	10	5	30
CHLORDANE	12789-03-6	6	6	6
CHLOROANILINE, p-	106-47-8	1	7	3
CHLOROBENZENE	108-90-7	1	3	100
CHLOROFORM	67-66-3	0.4	0.2	500
CHLOROPHENOL, 2-	95-57-8	0.7	100	100
CHROMIUM (TOTAL) *	7440-47-3	100	100	100
CHROMIUM(III)	16065-83-1	1,000	1,000	1,000
CHROMIUM(VI)	18540-29-9	100	100	100
CHRYSENE	218-01-9	200	200	200
CYANIDE **	57-12-5	30	30	30
DIBENZO(a,h)ANTHRACENE	53-70-3	2	2	2
DIBROMOCHLOROMETHANE	124-48-1	0.005	0.03	30
DICHLOROBENZENE, 1,2- (o-DCB)	95-50-1	9	100	300
DICHLOROBENZENE, 1,3- (m-DCB)	541-73-1	3	100	100
DICHLOROBENZENE, 1,4- (p-DCB)	106-46-7	0.7	1	100
DICHLOROBENZIDINE, 3,3'-	91-94-1	3	3	3
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	72-54-8	10	10	10
DICHLORODIPHENYL DICHLOROETHYLENE,P,P'- (DDE)	72-55-9	7	7	7
DICHLORODIPHENYL TRICHLOROETHANE, P,P'- (DDT)	50-29-3	7	7	7

310 CMR 40.0975(6)(a): TABLE 2 ^{††}				
MCP Method 1: SOIL CATEGORY S-1 STANDARDS				
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:				
Oil and/or Hazardous Material	CAS Number	S-1 SOIL & GW-1 ug/g (ppm)	S-1 SOIL & GW-2 ug/g (ppm)	S-1 SOIL & GW-3 ug/g (ppm)
DICHLOROETHANE, 1,1-	75-34-3	0.4	9	500
DICHLOROETHANE, 1,2-	107-06-2	0.1	0.1	30
DICHLOROETHYLENE, 1,1-	75-35-4	3	40	500
DICHLOROETHYLENE, CIS-1,2-	156-59-2	0.3	0.1	100
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	1	1	500
DICHLOROMETHANE	75-09-2	0.1	3	300
DICHLOROPHENOL, 2,4-	120-83-2	0.7	70	40
DICHLOROPROPANE, 1,2-	78-87-5	0.1	0.1	60
DICHLOROPROPENE, 1,3-	542-75-6	0.01	0.4	20
DIELDRIN	60-57-1	0.09	0.09	0.09
DIETHYL PHTHALATE	84-66-2	10	200	300
DIMETHYL PHTHALATE	131-11-3	0.7	50	600
DIMETHYLPHENOL, 2,4-	105-67-9	0.7	100	500
DINITROPHENOL, 2,4-	51-28-5	3	50	50
DINITROTOLUENE, 2,4-	121-14-2	0.7	2	2
DIOXANE, 1,4-	123-91-1	0.2	5	20
ENDOSULFAN	115-29-7	0.6	300	1
ENDRIN	72-20-8	20	20	20
ETHYLBENZENE	100-41-4	40	500	500
ETHYLENE DIBROMIDE	106-93-4	0.1	0.1	1
FLUORANTHENE	206-44-0	1,000	1,000	1,000
FLUORENE	86-73-7	1,000	1,000	1,000
HEPTACHLOR	76-44-8	0.3	0.3	0.3
HEPTACHLOR EPOXIDE	1024-57-3	0.2	0.2	0.2
HEXACHLOROBENZENE	118-74-1	0.7	0.7	0.7
HEXACHLOROBUTADIENE	87-68-3	30	30	30
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	58-89-9	0.003	2	0.5
HEXACHLOROETHANE	67-72-1	0.7	3	50
HMX	2691-41-0	2	100	1,000
INDENO(1,2,3-cd)PYRENE	193-39-5	20	20	20
LEAD	7439-92-1	200	200	200
MERCURY	7439-97-6	20	20	20
METHOXYCHLOR	72-43-5	300	300	300
METHYL ETHYL KETONE	78-93-3	4	50	400
METHYL ISOBUTYL KETONE	108-10-1	0.4	50	400
METHYL MERCURY	22967-92-6	5	5	5
METHYL TERT BUTYL ETHER	1634-04-4	0.1	100	100
METHYLNAPHTHALENE, 2-	91-57-6	0.7	80	300
NAPHTHALENE	91-20-3	4	20	500
NICKEL	7440-02-0	700	700	700
PENTACHLOROPHENOL	87-86-5	3	3	3
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) ***	-	0.0002	-	-
PERFLUORODECANOIC ACID (PFDA)	335-76-2	See PFAS	0.3	0.3
PERFLUOROHEPTANOIC ACID (PFHpA)	375-85-9	See PFAS	0.3	0.3
PERFLUOROHEXANESULFONIC ACID (PFHxS)	355-46-4	See PFAS	0.3	0.3
PERFLUORONONANOIC ACID (PFNA)	375-95-1	See PFAS	0.3	0.3
PERFLUOROOCTANESULFONIC ACID (PFOS)	1763-23-1	See PFAS	0.3	0.3
PERFLUOROOCTANOIC ACID (PFOA)	335-67-1	See PFAS	0.3	0.3
PERCHLORATE	-	0.1	4	4

310 CMR 40.0975(6)(a): **TABLE 2** ^{††}

MCP Method 1: SOIL CATEGORY S-1 STANDARDS				
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:				
Oil and/or Hazardous Material	CAS Number	S-1 SOIL & GW-1 ug/g (ppm)	S-1 SOIL & GW-2 ug/g (ppm)	S-1 SOIL & GW-3 ug/g (ppm)
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON [†]	NA	1,000	1,000	1,000
ALIPHATIC HYDROCARBONS				
C5 through C8 Aliphatic Hydrocarbons	NA	100	100	100
C9 through C12 Aliphatic Hydrocarbons	NA	1,000	1,000	1,000
C9 through C18 Aliphatic Hydrocarbons	NA	1,000	1,000	1,000
C19 through C36 Aliphatic Hydrocarbons	NA	3,000	3,000	3,000
AROMATIC HYDROCARBONS				
C9 through C10 Aromatic Hydrocarbons	NA	100	100	100
C11 through C22 Aromatic Hydrocarbons	NA	1,000	1,000	1,000
PHENANTHRENE	85-01-8	10	500	500
PHENOL	108-95-2	0.9	50	20
POLYCHLORINATED BIPHENYLS (PCBs)	1336-36-3	1	1	1
PYRENE	129-00-0	1,000	1,000	1,000
RDX	121-82-4	1	20	20
SELENIUM	7782-49-2	400	400	400
SILVER	7440-22-4	100	100	100
STYRENE	100-42-5	3	4	80
TETRACHLORODIBENZO-p-DIOXIN (TCDD), 2,3,7,8-(equivalents)	1746-01-6	2.E-05	2.E-05	2.E-05
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	0.1	0.1	90
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.005	0.02	10
TETRACHLOROETHYLENE	127-18-4	1	4	100
THALLIUM	7440-28-0	8	8	8
TOLUENE	108-88-3	30	500	500
TRICHLOROBENZENE, 1,2,4-	120-82-1	2	6	700
TRICHLOROETHANE, 1,1,1-	71-55-6	30	500	500
TRICHLOROETHANE, 1,1,2-	79-00-5	0.1	2	40
TRICHLOROETHYLENE	79-01-6	0.3	0.3	30
TRICHLOROPHENOL, 2,4,5-	95-95-4	4	1,000	600
TRICHLOROPHENOL 2,4,6-	88-06-2	0.7	20	20
VANADIUM	7440-62-2	500	500	500
VINYL CHLORIDE	75-01-4	0.3	0.3	0.3
XYLENES (Mixed Isomers)	1330-20-7	400	100	500
ZINC	7440-66-6	1,000	1,000	1,000
NOTE: All concentrations of oil and/or hazardous material in soil are calculated and presented on a dry weight/dry weight basis.				
NA - Not Applicable				
* - The Total Chromium standard is applicable in the absence of species-specific data for Chromium III and Chromium VI.				
** - Cyanide expressed as Physiologically Available Cyanide (PAC). In the absence of measured Physiologically Available Cyanide, the standard is applicable to Total Cyanide.				
*** - The Per -and Polyfluoroalkyl Substances (PFAS) standard shall be compared to the sum of the concentrations of the following PFAS: perfluorodecanoic acid (PFDA), perfluoroheptanoic acid (PFHpA), perfluorohexanesulfonic acid (PFHxS), perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and perfluorononanoic acid (PFNA). The listed compounds and associated CAS numbers are for the acid forms of these PFAS compounds. The information presented in Table 2 are also applicable to the respective anionic forms of these compounds. These anions may form salts with any of a number of cations resulting in a variety of possible chemical species, each having a unique CAS number.				
[†] - The Total Petroleum Hydrocarbon (TPH) standard may be used as an alternative to the appropriate combinations of the Aliphatic and Aromatic Hydrocarbon Fraction standards. The use of the general TPH standard is a valid option only for C9 and greater petroleum hydrocarbons; it is not appropriate for the characterization of risks associated with lighter (gasoline-range) hydrocarbons.				
^{††} - The Department periodically reviews the scientific basis for these Standards and amends them, as appropriate, to incorporate new scientific information.				

310 CMR 40.0975(6)(b): **TABLE 3** ^{††}

MCP Method 1: SOIL CATEGORY S-2 STANDARDS				
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:				
Oil and/or Hazardous Material	CAS Number	S-2 SOIL & GW-1 ug/g (ppm)	S-2 SOIL & GW-2 ug/g (ppm)	S-2 SOIL & GW-3 ug/g (ppm)
ACENAPHTHENE	83-32-9	4	3,000	3,000
ACENAPHTHYLENE	208-96-8	2	600	10
ACETONE	67-64-1	6	50	400
ALDRIN	309-00-2	0.5	0.5	0.5
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120-12-7	3,000	3,000	3,000
ANTIMONY	7440-36-0	40	40	40
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440-38-2	20	20	20
BARIUM	7440-39-3	3,000	3,000	3,000
BENZENE	71-43-2	2	200	200
BENZO(a)ANTHRACENE	56-55-3	300	300	300
BENZO(a)PYRENE	50-32-8	30	30	30
BENZO(b)FLUORANTHENE	205-99-2	300	300	300
BENZO(g,h,i)PERYLENE	191-24-2	3,000	3,000	3,000
BENZO(k)FLUORANTHENE	207-08-9	3,000	3,000	3,000
BERYLLIUM	7440-41-7	200	200	200
BIPHENYL, 1,1-	92-52-4	0.05	6	1,000
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.7	0.7	9
BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	0.7	0.7	100
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	700	700	700
BROMODICHLOROMETHANE	75-27-4	0.1	0.1	200
BROMOFORM	75-25-2	0.1	1	800
BROMOMETHANE	74-83-9	0.5	0.5	30
CADMIUM	7440-43-9	80	80	80
CARBON TETRACHLORIDE	56-23-5	10	5	100
CHLORDANE	12789-03-6	30	30	30
CHLOROANILINE, p-	106-47-8	1	40	3
CHLOROBENZENE	108-90-7	1	3	100
CHLOROFORM	67-66-3	0.4	0.2	1,000
CHLOROPHENOL, 2-	95-57-8	0.7	100	300
CHROMIUM (TOTAL) *	7440-47-3	200	200	200
CHROMIUM(III)	16065-83-1	3,000	3,000	3,000
CHROMIUM(VI)	18540-29-9	200	200	200
CHRYSENE	218-01-9	3,000	3,000	3,000
CYANIDE **	57-12-5	100	100	100
DIBENZO(a,h)ANTHRACENE	53-70-3	30	30	30
DIBROMOCHLOROMETHANE	124-48-1	0.005	0.03	100
DICHLOROBENZENE, 1,2- (o-DCB)	95-50-1	9	100	300
DICHLOROBENZENE, 1,3- (m-DCB)	541-73-1	3	200	500
DICHLOROBENZENE, 1,4- (p-DCB)	106-46-7	0.7	1	400
DICHLOROBENZIDINE, 3,3'-	91-94-1	20	20	20
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	72-54-8	40	40	40
DICHLORODIPHENYL DICHLOROETHYLENE,P,P'- (DDE)	72-55-9	30	30	30
DICHLORODIPHENYL TRICHLOROETHANE, P,P'- (DDT)	50-29-3	30	30	30
DICHLOROETHANE, 1,1-	75-34-3	0.4	9	1,000
DICHLOROETHANE, 1,2-	107-06-2	0.1	0.1	100
DICHLOROETHYLENE, 1,1-	75-35-4	3	40	1,000
DICHLOROETHYLENE, CIS-1,2-	156-59-2	0.3	0.1	500
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	1	1	1,000

310 CMR 40.0975(6)(b): TABLE 3 ^{††}				
MCP Method 1: SOIL CATEGORY S-2 STANDARDS				
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:				
Oil and/or Hazardous Material	CAS Number	S-2 SOIL & GW-1 ug/g (ppm)	S-2 SOIL & GW-2 ug/g (ppm)	S-2 SOIL & GW-3 ug/g (ppm)
DICHLOROMETHANE	75-09-2	0.1	3	800
DICHLOROPHENOL, 2,4-	120-83-2	0.7	70	40
DICHLOROPROPANE, 1,2-	78-87-5	0.1	0.1	300
DICHLOROPROPENE, 1,3-	542-75-6	0.01	0.4	100
DIELDRIN	60-57-1	0.6	0.6	0.6
DIETHYL PHTHALATE	84-66-2	10	200	300
DIMETHYL PHTHALATE	131-11-3	0.7	50	600
DIMETHYLPHENOL, 2,4-	105-67-9	0.7	100	1,000
DINITROPHENOL, 2,4-	51-28-5	3	50	100
DINITROTOLUENE, 2,4-	121-14-2	0.7	10	10
DIOXANE, 1-4-	123-91-1	0.2	5	100
ENDOSULFAN	115-29-7	0.6	500	1
ENDRIN	72-20-8	30	30	30
ETHYLBENZENE	100-41-4	40	1,000	1,000
ETHYLENE DIBROMIDE	106-93-4	0.1	0.1	5
FLUORANTHENE	206-44-0	3,000	3,000	3,000
FLUORENE	86-73-7	3,000	3,000	3,000
HEPTACHLOR	76-44-8	2	2	2
HEPTACHLOR EPOXIDE	1024-57-3	1	1	1
HEXACHLOROBENZENE	118-74-1	0.9	0.9	0.9
HEXACHLOROBUTADIENE	87-68-3	100	100	100
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	58-89-9	0.003	2	0.5
HEXACHLOROETHANE	67-72-1	0.7	3	300
HMX	2691-41-0	2	100	1,000
INDENO(1,2,3-cd)PYRENE	193-39-5	300	300	300
LEAD	7439-92-1	600	600	600
MERCURY	7439-97-6	40	40	40
METHOXYCHLOR	72-43-5	400	400	400
METHYL ETHYL KETONE	78-93-3	4	50	400
METHYL ISOBUTYL KETONE	108-10-1	0.4	50	400
METHYL MERCURY	22967-92-6	9	9	9
METHYL TERT BUTYL ETHER	1634-04-4	0.1	100	500
METHYLNAPHTHALENE, 2-	91-57-6	1	80	500
NAPHTHALENE	91-20-3	4	20	1,000
NICKEL	7440-02-0	1,000	1,000	1,000
PENTACHLOROPHENOL	87-86-5	3	20	10
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) ***	-	0.0002	-	-
PERFLUORODECANOIC ACID (PFDA)	335-76-2	See PFAS	0.4	0.4
PERFLUOROHEPTANOIC ACID (PFHpA)	375-85-9	See PFAS	0.4	0.4
PERFLUOROHEXANESULFONIC ACID (PFHxS)	355-46-6	See PFAS	0.4	0.4
PERFLUORONONANOIC ACID (PFNA)	375-95-1	See PFAS	0.4	0.4
PERFLUOROOCTANESULFONIC ACID (PFOS)	1763-23-1	See PFAS	0.4	0.4
PERFLUOROOCTANOIC ACID (PFOA)	335-67-1	See PFAS	0.4	0.4
PERCHLORATE	-	0.1	6	6
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON [†]	NA	1,000	3,000	3,000
ALIPHATIC HYDROCARBONS				
C5 through C8 Aliphatic Hydrocarbons	NA	500	500	500
C9 through C12 Aliphatic Hydrocarbons	NA	3,000	3,000	3,000
C9 through C18 Aliphatic Hydrocarbons	NA	3,000	3,000	3,000
C19 through C36 Aliphatic Hydrocarbons	NA	5,000	5,000	5,000
AROMATIC HYDROCARBONS				
C9 through C10 Aromatic Hydrocarbons	NA	300	500	500

310 CMR 40.0975(6)(b): TABLE 3 ^{††}				
MCP Method 1: SOIL CATEGORY S-2 STANDARDS				
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:				
Oil and/or Hazardous Material	CAS Number	S-2 SOIL & GW-1 ug/g (ppm)	S-2 SOIL & GW-2 ug/g (ppm)	S-2 SOIL & GW-3 ug/g (ppm)
C11 through C22 Aromatic Hydrocarbons	NA	1,000	3,000	3,000
PHENANTHRENE	85-01-8	20	1,000	1,000
PHENOL	108-95-2	0.9	50	20
POLYCHLORINATED BIPHENYLS (PCBs)	1336-36-3	4	4	4
PYRENE	129-00-0	3,000	3,000	3,000
RDX	121-82-4	1	90	90
SELENIUM	7782-49-2	800	800	800
SILVER	7440-22-4	200	200	200
STYRENE	100-42-5	3	4	300
TETRACHLORODIBENZO-p-DIOXIN (TCDD), 2,3,7,8-(equivalents)	1746-01-6	6.E-05	6.E-05	6.E-05
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	0.1	0.1	400
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.005	0.02	50
TETRACHLOROETHYLENE	127-18-4	1	4	500
THALLIUM	7440-28-0	70	70	70
TOLUENE	108-88-3	30	1,000	1,000
TRICHLOROBENZENE, 1,2,4-	120-82-1	2	6	3,000
TRICHLOROETHANE, 1,1,1-	71-55-6	30	600	1,000
TRICHLOROETHANE, 1,1,2-	79-00-5	0.1	2	200
TRICHLOROETHYLENE	79-01-6	0.3	0.3	70
TRICHLOROPHENOL, 2,4,5-	95-95-4	4	1,000	600
TRICHLOROPHENOL 2,4,6-	88-06-2	0.7	20	20
VANADIUM	7440-62-2	800	800	800
VINYL CHLORIDE	75-01-4	0.9	0.7	10
XYLENES (Mixed Isomers)	1330-20-7	400	100	1,000
ZINC	7440-66-6	3,000	3,000	3,000
<p>NOTE: All concentrations of oil and/or hazardous material in soil are calculated and presented on a dry weight/dry weight basis.</p> <p>NA- Not Applicable</p> <p>* - The Total Chromium standard is applicable in the absence of species-specific data for Chromium III and Chromium VI.</p> <p>** - Cyanide expressed as Physiologically Available Cyanide (PAC). In the absence of measured Physiologically Available Cyanide, the standard is applicable to Total Cyanide.</p> <p>*** - The Per--and Polyfluoroalkyl Substances (PFAS) standard shall be compared to the sum of the concentrations of the following PFAS: perfluorodecanoic acid (PFDA), perfluoroheptanoic acid (PFHpA), perfluorohexanesulfonic acid (PFHxS), perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and perfluorononanoic acid (PFNA). The listed compounds and associated CAS numbers are for the acid forms of these PFAS compounds. The information presented in Table 3 are also applicable to the respective anionic forms of these compounds. These anions may form salts with any of a number of cations resulting in a variety of possible chemical species, each having a unique CAS number.</p> <p>[†] - The Total Petroleum Hydrocarbon (TPH) standard may be used as an alternative to the appropriate combinations of the Aliphatic and Aromatic Hydrocarbon Fraction standards. The use of the general TPH standard is a valid option only for C9 and greater petroleum hydrocarbons; it is not appropriate for the characterization of risks associated with lighter (gasoline-range) hydrocarbons.</p> <p>^{††} - The Department periodically reviews the scientific basis for these Standards and amends them, as appropriate, to incorporate new scientific information.</p>				

310 CMR 40.0975(6)(c): TABLE 4 ^{††}				
MCP Method 1: SOIL CATEGORY S-3 STANDARDS				
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:				
Oil and/or Hazardous Material	CAS Number	S-3 SOIL & GW-1 ug/g (ppm)	S-3 SOIL & GW-2 ug/g (ppm)	S-3 SOIL & GW-3 ug/g (ppm)
ACENAPHTHENE	83-32-9	4	5,000	5,000
ACENAPHTHYLENE	208-96-8	2	600	10
ACETONE	67-64-1	6	50	400
ALDRIN	309-00-2	4	4	4
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120-12-7	5,000	5,000	5,000
ANTIMONY	7440-36-0	40	40	40
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440-38-2	60	60	60
BARIUM	7440-39-3	5,000	5,000	5,000
BENZENE	71-43-2	2	400	1,000
BENZO(a)ANTHRACENE	56-55-3	2,000	2,000	2,000
BENZO(a)PYRENE	50-32-8	30	30	30
BENZO(b)FLUORANTHENE	205-99-2	2,000	2,000	2,000
BENZO(g,h,i)PERYLENE	191-24-2	5,000	5,000	5,000
BENZO(k)FLUORANTHENE	207-08-9	5,000	5,000	5,000
BERYLLIUM	7440-41-7	200	200	200
BIPHENYL, 1,1-	92-52-4	0.05	6	5,000
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.7	0.7	90
BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	0.7	0.7	1,000
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	2,000	2,000	2,000
BROMODICHLOROMETHANE	75-27-4	0.1	0.1	500
BROMOFORM	75-25-2	0.1	1	800
BROMOMETHANE	74-83-9	0.5	0.5	30
CADMIUM	7440-43-9	80	80	80
CARBON TETRACHLORIDE	56-23-5	10	5	1,000
CHLORDANE	12789-03-6	60	60	60
CHLOROANILINE, p-	106-47-8	1	40	3
CHLOROBENZENE	108-90-7	1	3	100
CHLOROFORM	67-66-3	0.4	0.2	1,000
CHLOROPHENOL, 2-	95-57-8	0.7	100	300
CHROMIUM (TOTAL) *	7440-47-3	200	200	200
CHROMIUM(III)	16065-83-1	5,000	5,000	5,000
CHROMIUM(VI)	18540-29-9	200	200	200
CHRYSENE	218-01-9	5,000	5,000	5,000
CYANIDE **	57-12-5	500	500	500
DIBENZO(a,h)ANTHRACENE	53-70-3	200	200	200
DIBROMOCHLOROMETHANE	124-48-1	0.005	0.03	500
DICHLOROBENZENE, 1,2- (o-DCB)	95-50-1	9	100	300
DICHLOROBENZENE, 1,3- (m-DCB)	541-73-1	3	200	500
DICHLOROBENZENE, 1,4- (p-DCB)	106-46-7	0.7	1	2,000
DICHLOROBENZIDINE, 3,3'-	91-94-1	100	100	100
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	72-54-8	70	70	70
DICHLORODIPHENYL DICHLOROETHYLENE,P,P'- (DDE)	72-55-9	70	70	70
DICHLORODIPHENYL TRICHLOROETHANE, P,P'- (DDT)	50-29-3	70	70	70
DICHLOROETHANE, 1,1-	75-34-3	0.4	9	1,000
DICHLOROETHANE, 1,2-	107-06-2	0.1	0.1	300
DICHLOROETHYLENE, 1,1-	75-35-4	3	40	3,000
DICHLOROETHYLENE, CIS-1,2-	156-59-2	0.3	0.1	500
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	1	1	3,000

310 CMR 40.0975(6)(c): TABLE 4 ^{††}				
MCP Method 1: SOIL CATEGORY S-3 STANDARDS				
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:				
Oil and/or Hazardous Material	CAS Number	S-3 SOIL & GW-1 ug/g (ppm)	S-3 SOIL & GW-2 ug/g (ppm)	S-3 SOIL & GW-3 ug/g (ppm)
DICHLOROMETHANE	75-09-2	0.1	3	800
DICHLOROPHENOL, 2,4-	120-83-2	0.7	70	40
DICHLOROPROPANE, 1,2-	78-87-5	0.1	0.1	1,000
DICHLOROPROPENE, 1,3-	542-75-6	0.01	0.4	100
DIELDRIN	60-57-1	4	4	4
DIETHYL PHTHALATE	84-66-2	10	200	300
DIMETHYL PHTHALATE	131-11-3	0.7	50	600
DIMETHYLPHENOL, 2,4-	105-67-9	0.7	100	1,000
DINITROPHENOL, 2,4-	51-28-5	3	50	100
DINITROTOLUENE, 2,4-	121-14-2	0.7	50	90
DIOXANE, 1,4-	123-91-1	0.2	5	500
ENDOSULFAN	115-29-7	0.6	500	1
ENDRIN	72-20-8	30	30	30
ETHYLBENZENE	100-41-4	40	1,000	3,000
ETHYLENE DIBROMIDE	106-93-4	0.1	0.1	50
FLUORANTHENE	206-44-0	5,000	5,000	5,000
FLUORENE	86-73-7	5,000	5,000	5,000
HEPTACHLOR	76-44-8	10	10	10
HEPTACHLOR EPOXIDE	1024-57-3	1	1	1
HEXACHLOROBENZENE	118-74-1	0.9	0.9	0.9
HEXACHLOROBUTADIENE	87-68-3	100	100	100
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	58-89-9	0.003	2	0.5
HEXACHLOROETHANE	67-72-1	0.7	3	300
HMX	2691-41-0	2	100	1,000
INDENO(1,2,3-cd)PYRENE	193-39-5	2,000	2,000	2,000
LEAD	7439-92-1	600	600	600
MERCURY	7439-97-6	40	40	40
METHOXYCHLOR	72-43-5	400	400	400
METHYL ETHYL KETONE	78-93-3	4	50	400
METHYL ISOBUTYL KETONE	108-10-1	0.4	50	400
METHYL MERCURY	22967-92-6	9	9	9
METHYL TERT BUTYL ETHER	1634-04-4	0.1	100	500
METHYLNAPHTHALENE, 2-	91-57-6	1	80	500
NAPHTHALENE	91-20-3	4	20	3,000
NICKEL	7440-02-0	1,000	1,000	1,000
PENTACHLOROPHENOL	87-86-5	3	80	10
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) ***	-	0.0002	NA	-
PERFLUORODECANOIC ACID (PFDA)	335-76-2	See PFAS	0.4	0.4
PERFLUOROHEPTANOIC ACID (PFHpA)	375-85-9	See PFAS	0.4	0.4
PERFLUOROHEXANESULFONIC ACID (PFHxS)	355-46-4	See PFAS	0.4	0.4
PERFLUORONONANOIC ACID (PFNA)	375-95-1	See PFAS	0.4	0.4
PERFLUOROOCTANESULFONIC ACID (PFOS)	1763-23-1	See PFAS	0.4	0.4
PERFLUOROOCTANOIC ACID (PFOA)	335-67-1	See PFAS	0.4	0.4
PERCHLORATE	-	0.1	6	6
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON [†]	NA	1,000	5,000	5,000
ALIPHATIC HYDROCARBONS				
C5 through C8 Aliphatic Hydrocarbons	NA	500	500	500
C9 through C12 Aliphatic Hydrocarbons	NA	5,000	5,000	5,000
C9 through C18 Aliphatic Hydrocarbons	NA	5,000	5,000	5,000
C19 through C36 Aliphatic Hydrocarbons	NA	5,000	5,000	5,000
AROMATIC HYDROCARBONS				

310 CMR 40.0975(6)(c): TABLE 4 ^{††}				
MCP Method 1: SOIL CATEGORY S-3 STANDARDS				
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:				
Oil and/or Hazardous Material	CAS Number	S-3 SOIL & GW-1 ug/g (ppm)	S-3 SOIL & GW-2 ug/g (ppm)	S-3 SOIL & GW-3 ug/g (ppm)
C9 through C10 Aromatic Hydrocarbons	NA	300	500	500
C11 through C22 Aromatic Hydrocarbons	NA	1,000	5,000	5,000
PHENANTHRENE	85-01-8	20	3,000	3,000
PHENOL	108-95-2	0.9	50	20
POLYCHLORINATED BIPHENYLS (PCBs)	1336-36-3	4	4	4
PYRENE	129-00-0	5,000	5,000	5,000
RDX	121-82-4	1	100	400
SELENIUM	7782-49-2	800	800	800
SILVER	7440-22-4	200	200	200
STYRENE	100-42-5	3	4	2,000
TETRACHLORODIBENZO-p-DIOXIN (TCDD), 2,3,7,8-(equivalents)	1746-01-6	6.E-05	6.E-05	6.E-05
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	0.1	0.1	500
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.005	0.02	500
TETRACHLOROETHYLENE	127-18-4	1	4	800
THALLIUM	7440-28-0	90	90	90
TOLUENE	108-88-3	30	2,000	3,000
TRICHLOROBENZENE, 1,2,4-	120-82-1	2	6	5,000
TRICHLOROETHANE, 1,1,1-	71-55-6	30	600	3,000
TRICHLOROETHANE, 1,1,2-	79-00-5	0.1	2	500
TRICHLOROETHYLENE	79-01-6	0.3	0.3	70
TRICHLOROPHENOL, 2,4,5-	95-95-4	4	1,000	600
TRICHLOROPHENOL 2,4,6-	88-06-2	0.7	20	20
VANADIUM	7440-62-2	800	800	800
VINYL CHLORIDE	75-01-4	0.9	0.7	100
XYLENES (Mixed Isomers)	1330-20-7	400	100	3,000
ZINC	7440-66-6	5,000	5,000	5,000
<p>NOTE: All concentrations of oil and/or hazardous material in soil are calculated and presented on a dry weight/dry weight basis.</p> <p>NA- Not Applicable</p> <p>* - The Total Chromium standard is applicable in the absence of species-specific data for Chromium III and Chromium VI.</p> <p>** - Cyanide expressed as Physiologically Available Cyanide (PAC). In the absence of measured Physiologically Available Cyanide, the standard is applicable to Total Cyanide.</p> <p>• The Per- and Polyfluoroalkyl Substances (PFAS) standard shall be compared to the sum of the concentrations of the following PFAS: perfluorodecanoic acid (PFDA), perfluoroheptanoic acid (PFHpA), perfluorohexanesulfonic acid (PFHxS), perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and perfluorononanoic acid (PFNA). The listed compounds and associated CAS numbers are for the acid forms of these PFAS compounds. The information presented in Table 4 are also applicable to the respective anionic forms of these compounds. These anions may form salts with any of a number of cations resulting in a variety of possible chemical species, each having a unique CAS number.</p> <p>† - The Total Petroleum Hydrocarbon (TPH) standard may be used as an alternative to the appropriate combinations of the Aliphatic and Aromatic Hydrocarbon Fraction standards. The use of the general TPH standard is a valid option only for C9 and greater petroleum hydrocarbons; it is not appropriate for the characterization of risks associated with lighter (gasoline-range) hydrocarbons.</p> <p>†† - The Department periodically reviews the scientific basis for these Standards and amends them, as appropriate, to incorporate new scientific information.</p>				

40.0980: Method 2 Risk Characterization40.0981 Applicability of Method 2

Method 2 may be used to characterize the risk of harm to health, public welfare and the environment at disposal sites where site investigations conducted in accordance with 310 CMR 40.0000 have determined that the release of oil and/or hazardous material is limited to soil and/or groundwater. If contamination is present in one or more environmental media other than soil or groundwater, Method 2 shall not be used, except as described in 310 CMR 40.0942(2). A Method 2 Risk Characterization shall be conducted in combination with a separate characterization of the risk of harm to safety, as described in 310 CMR 40.0960.

40.0982 General Approach to Method 2

A Method 2 Risk Characterization supplements and modifies the MCP Method 1 Standards with site-and chemical-specific information. For the purposes of 310 CMR 40.0000, "MCP Method 2 Standards" shall refer to the MCP Method 1 Standards which have been modified to address site-specific conditions as described in 310 CMR 40.0982. Site conditions are then compared to such MCP Method 2 Standards, in the same manner that MCP Method 1 Standards are used under 310 CMR 40.0973, to characterize the risk of harm to health, public welfare and the environment.

(1) MCP Method 1 GW-1 Standards shall not be modified in Method 2. These standards are listed in 310 CMR 40.0974(2).

(2) The component of the MCP Method 1 Soil Standards which is protective of direct contact exposures to the soil shall not be modified in Method 2. These standards are listed in 310 CMR 40.0985(6).

(3) The following information may be used under Method 2 to modify the Method 1 Standards:

(a) MCP Method 2 Groundwater and Soil Standards may be developed for chemicals for which MCP Method 1 Standards have not been promulgated by the Department. This process is described in 310 CMR 40.0983 and 40.0984.

(b) Site-specific information may be used to either modify the leaching component of the MCP Method 1 Soil Standards or to demonstrate that a contaminant will not leach to groundwater. The incorporation of such site-specific information will result in MCP Method 2 Soil Standards or a determination that the leaching component of one or more Method 1 soil standard is not applicable. These site-specific modifications are described in 310 CMR 40.0985.

(c) Site-specific information may be used to either modify the MCP Method 1 GW-2 Standards, which model potential volatilization of oil and/or hazardous material to indoor air, or to demonstrate that such vapor infiltration will not occur. The incorporation of such site-specific information will result in MCP Method 2 GW-2 Standards or a determination that one or more Method 1 GW-2 standard is not applicable at this site. These site-specific modifications are described in 310 CMR 40.0986.

(d) Site-specific information may be used to either modify the MCP Method 1 GW-3 Standards, which are set to be protective of potential discharges of oil and/or hazardous material to surface water, or to demonstrate that such discharges will not occur. The incorporation of such site-specific information will result in MCP Method 2 GW-3 Standards or a determination that one or more Method 1 GW-3 standard is not applicable. These site-specific modifications are described in 310 CMR 40.0987.

(4) If the modification of a MCP Method 1 GW-2 or GW-3 Standard results in a concentration of an oil and/or hazardous material greater than the Upper Concentration Limit in Groundwater listed in 310 CMR 40.0996(8), then the Upper Concentration Limit for that chemical shall be used to characterize the risk of harm to health, public welfare and the environment in Method 2.

(5) MCP Method 1 Standards may be used in combination with one or more MCP Method 2 Standards. A Risk Characterization which uses a combination of MCP Method 1 and 2 Standards shall be considered a Method 2 Risk Characterization.

40.0982: continued

- (6) The MCP Method 2 Standards developed and used or relied upon by the LSP shall be listed and suitably documented.
- (7) The Department may develop and publish sets of chemical-specific concentrations which, for specific types of disposal sites, will demonstrably meet the Risk Characterization requirements described at 40.0990. Such concentrations may be used at the RP's, PRP's or Other Person's option to characterize risk at a disposal site, and the use of these sets of concentrations shall be considered a Method 2 Risk Characterization.

40.0983: Derivation of Additional Method 1 Groundwater Standards for Use in Method 2

If an MCP Method 1 Groundwater Standard has not been promulgated by the Department, the RP, PRP or Other Person may develop an MCP Method 2 Standard for that oil and/or hazardous material on the basis of the following assumptions and procedures:

- (1) A site-specific background concentration in groundwater shall be identified for the oil and/or hazardous material.
- (2) GW-1 Standards shall be calculated as follows:
- (a) Based on non-cancer health risk, a concentration in drinking water of the oil and/or hazardous material associated with a Hazard Quotient (HQ) of 0.2 shall be identified using the following equation:

$$[OHM]_{dw, non-cancer} = HQ \times RfD \times BW \times C / (IR \times RAF_{dw-oral}).$$

Where:

- $[OHM]_{dw, non-cancer}$ = Concentration of oil and/or hazardous material consistent with a non-cancer Hazard Quotient of 0.2, in units of micro-grams per liter (ug/L or ppb).
- HQ = Hazard Quotient of 0.2 (dimensionless).
- RfD = Reference Dose, in units of milligrams per kilogram-day (mg/(kg x d)).
- BW = Body weight of 70 kilograms (kg).
- C = Conversion factor of 1000 micrograms per milligram (ug/mg).
- IR = Intake rate of 2 liters of water per day.
- $RAF_{dw-oral}$ = Relative Absorption Factor for oral drinking water exposures (dimensionless).

- (b) A concentration of the oil and/or hazardous material associated with an Excess Lifetime Cancer Risk equal to one-in-one million shall be identified using the following equation:

$$[OHM]_{dw, cancer} = ELCR \times C \times BW / (IR \times RAF \times CSF).$$

Where:

- $[OHM]_{dw, cancer}$ = The concentration of oil and/or hazardous material in groundwater consistent with a cancer risk limit of one-in-one million, in units of micrograms per liter (ug/L or ppb).
- ELCR = The Method 1 Excess Lifetime Cancer Risk limit of one-in-one million (10^{-6}).
- C = Conversion factor of 1000 micrograms per milligram (ug/mg).
- BW = Body weight of 70 kilograms (kg).
- IR = Intake rate of 2 liters of water per day.
- $RAF_{dw-oral}$ = Relative Absorption Factor for oral drinking water exposures (dimensionless).
- CSF = Cancer Slope Factor in units of risk per milligrams per kilogram-day (mg/(kg x day))⁻¹.

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- (c) The concentration in water of the oil and/or hazardous material at which 50% of the population can detect its odor is identified, if available;
- (d) The lowest non-zero concentration estimated in 310 CMR 40.0983(2)(a), (b), and (c) is identified as the risk-based concentration for the oil and/or hazardous material of concern;
- (e) The site-specific groundwater background concentration identified for the oil and/or hazardous material in 310 CMR 40.0983(1) is considered;
- (f) The Practical Quantitation Limit (PQL) applicable to the oil and/or hazardous material using an appropriately sensitive analytical method for quantifying the concentration of the oil and/or hazardous material in water shall be identified; and
- (g) The highest of the three concentrations identified in 310 CMR 40.0983(2)(d), (e) and (f) is adopted as the MCP Method 2 GW-1 Standard for that oil and/or hazardous material.

(3) GW-2 Standards shall be determined as follows:

- (a) A risk-based indoor air concentration shall be identified by choosing the lowest non-zero value from the following:

- 1. Based on a non-cancer health risk, a concentration associated with a Hazard Quotient (HQ) of 0.2 is identified when sufficient information exists using the following equation:

$$[OHM]_{\text{air, non-cancer}} = HQ \times RfC \times C.$$

Where:

- $[OHM]_{\text{air, non-cancer}}$ = The calculated indoor air concentration associated with 20% of the reference concentration, in units of micrograms per cubic meter (ug/m^3).
- HQ = Hazard Quotient of 0.2 (dimensionless).
- RfC = Reference Concentration, in units of milligrams per cubic meter (mg/m^3) at which adverse non-cancer health effects are unlikely to occur.
- C = Conversion factor of 1000 micrograms per milligram (ug/mg).

- 2. An indoor air concentration associated with an Excess Lifetime Cancer Risk of one-in-one million, using the following equation, when sufficient information exists:

$$[OHM]_{\text{air-cancer}} = ELCR / UR_{\text{air}}.$$

Where:

- $[OHM]_{\text{air}}$ = The calculated indoor air concentration in units of micrograms per cubic meter (ug/m^3) associated with an Excess Lifetime Cancer Risk of one-in-one million (10^{-6}).
- ELCR = The Method 1 Excess Lifetime Cancer Risk limit of one-in-one million (10^{-6}).
- UR_{air} = The inhalation Unit Risk in air for the chemical, in units of risk per micrograms per cubic meter (ug/m^3)⁻¹.

- 3. The concentration in air of the oil and/or hazardous material at which 50% of the population can detect its odor is identified, if available.

- (b) A background indoor air concentration for the chemical shall be identified and compared to the risk-based concentration calculated in 310 CMR 40.0983(3)(a). The higher of the two values shall be chosen as the target indoor air concentration.
- (c) A source attenuation factor, α , shall be determined for the oil and/or hazardous material, assuming conservative site characteristics, including: a depth to groundwater of 213 cm (seven feet), a basement floor both 183 cm (six feet) below grade and 30 cm (one foot) above the groundwater table, a soil water-filled porosity equal to $0.06 \text{ cm}^3/\text{cm}^3$, and sandy-loam soil between the groundwater and the basement.
- (d) A concentration in groundwater for the oil and/or hazardous material shall be calculated using the following equation:

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$$[OHM]_{gw} = [OHM]_{air} / (\alpha \times H \times C).$$

Where:

- $[OHM]_{gw}$ = The calculated GW-2 Standard, in units of micrograms per liter (ug/L or ppb).
- $[OHM]_{air}$ = The target indoor air concentration identified in 310 CMR 40.0983(3)(b), in units of micrograms per cubic meter (ug/m³).
- α = A source attenuation factor as determined at 310 CMR 40.0983(3)(c) (dimensionless).
- H = The Henry's Law Constant for the chemical (dimensionless).
- C = Conversion factor of 1000 liters per cubic meter (L/m³).

- (e) The site-specific groundwater background concentration shall be identified for the oil and/or hazardous material in 310 CMR 40.0983(1).
- (f) The Practical Quantitation Limit (PQL) applicable to the oil and/or hazardous material using an appropriately sensitive analytical method for quantifying the concentration of the oil and/or hazardous material in water shall be identified.
- (g) The highest of the three concentrations identified in 310 CMR 40.0983(2)(d), (e), and (f) shall be adopted as the MCP Method 2 GW-2 Standard for that oil and/or hazardous material.

- (4) GW-3 Standards shall be determined as follows:
 - (a) The lowest ecologically-based Water Quality Criterion for the oil and/or hazardous material of concern shall be identified (*i.e.*, the Fresh Water Chronic Criterion, the Fresh Water Acute Criterion, the Marine Chronic Criterion, or the Marine Acute Criterion). If no such criterion exists, an analogous value from the scientific literature may be proposed.
 - (b) The concentration (in µg/liter, or ppb) identified in 310 CMR 40.0983(4)(a) shall be multiplied by a factor of ten.
 - (c) The concentration identified in 310 CMR 40.0983(4)(b) shall be multiplied by:
 - 1. a factor of 2.5 if the Koc value for the oil or hazardous material of concern is less than 1,000;
 - 2. a factor of 25 if the Koc value for the oil or hazardous material of concern is greater than or equal to 1,000 but less than 100,000; or
 - 3. a factor of 100 if the Koc value for the oil or hazardous material of concern is greater than or equal to 100,000.
 - (d) The resulting concentration (in µg/L, or ppb) shall be the MCP Method 2 GW-3 Standard for the oil and/or hazardous material of concern.

- (5) Any of the MCP Method 2 groundwater standards calculated in 310 CMR 40.0983(2) through (4) shall be adjusted to a ceiling concentration of 50,000 µg/liter (ppb) if the calculated value is greater than 50,000 µg/liter (ppb).

40.0984: Derivation of Additional Method 1 Soil Standards for Use in Method 2

If an MCP Method 1 Soil Standard has not been promulgated by the Department, the RP, PRP or Other Person may develop an MCP Method 2 Standard for that oil and/or hazardous material on the basis of the following assumptions and procedures:

- (1) A site-specific background concentration in soil shall be identified for the oil and/or hazardous material.
- (2) Based upon non-cancer health risk, a concentration of the oil and/or hazardous material associated with a Hazard Quotient (HQ) of 0.2 for each soil category shall be identified using the equations:

$$[OHM]_{S1} = (HQ \times RfD_{chronic} \times C) / ((RAF_{oral} \times ADSE_{S1oral}) + (RAF_{dermal} \times ADSE_{S1dermal}))$$

$$[OHM]_{S2} = (HQ \times RfD_{chronic} \times C) / ((RAF_{oral} \times ADSE_{S2oral}) + (RAF_{dermal} \times ADSE_{S2dermal}))$$

$$[OHM]_{S3} = (HQ \times RfD_{subchronic} \times C) / ((RAF_{oral} \times ADSE_{S3oral}) + (RAF_{dermal} \times ADSE_{S3dermal}))$$

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Where:	
[OHM]	= The concentration of oil and/or hazardous material being derived, in units of milligrams per kilogram soil (mg/kg or ppm).
HQ	= Hazard Quotient (HQ) of 0.2 (dimensionless).
RfD	= The Reference Dose for the chemical, in units of milligrams contaminant per kilogram-day (mg/(kg x day)).
RAF _{oral}	= The Relative Absorption Factor applicable for oral soil exposures (dimensionless).
RAF _{dermal}	= The Relative Absorption Factor applicable for dermal soil exposures (dimensionless).
C	= 10 ⁶ mg/kg conversion factor
ADSE	= Average daily exposure to soil by the oral or dermal pathway in units of milligrams soil per kilogram-day (mg/(kg x day)). ADSE values are: S1 oral = 2.4 mg/(kg x day) S1 dermal = 21 mg/(kg x day) S2 oral = 0.27 mg/(kg x day) S2 dermal = 0.49 mg/(kg x day) S3 oral = 1.2 mg/(kg x day) S3 dermal = 13 mg/(kg x day).

(3) A concentration of the oil and/or hazardous material associated with an Excess Lifetime Cancer Risk equal to one-in-one million shall be identified for each soil category using the following equations:

[OHM]	= (ELCR x C)/(CSF x ((RAF _{oral} x LADSE _{oral}) + (RAF _{dermal} x LADSE _{dermal})))
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Where:	
[OHM]	= The concentration of oil and/or hazardous material being derived, in units of milligrams OHM per kilogram soil (mg/kg or ppm).
ELCR	= Method 1 Excess Lifetime Cancer Risk limit of one-in-one million (10 ⁻⁶).
CSF	= The oral Carcinogenic Slope Factor in units of risk per milligram per kilogram-day (mg/(kg x day)) ⁻¹ .
RAF _{oral}	= The Relative Absorption Factor applicable for oral soil exposures (dimensionless).
RAF _{dermal}	= The Relative Absorption Factor applicable for dermal soil exposures (dimensionless).
C	= 10 ⁶ mg/kg conversion factor.
LADSE	= Lifetime average daily exposure to soil by the oral or dermal pathway in units of milligrams soil per kilogram-day (mg/(kg x day)). LADSE values are: S1 oral = 0.37 mg/(kg x day) S1 dermal = 3.9 mg/(kg x day) S2 oral = 0.10 mg/(kg x day) S2 dermal = 0.19 mg/(kg x day) S3 oral = 0.0088 mg/(kg x day) S3 dermal = 0.095 mg/(kg x day).

(4) Considering the category determined for the groundwater at the disposal site per 310 CMR 40.0932 and an acceptable leaching model or test method as discussed in 310 CMR 40.0985, a concentration in soil which will not result in groundwater concentrations of the oil and/or hazardous material greater than the applicable MCP Method 2 groundwater standard derived in 310 CMR 40.0983 shall be identified.

(5) For each combination of soil and groundwater categories, the lowest non-zero concentration estimated in 310 CMR 40.0984(2) through (4) shall be the risk-based concentration for the oil

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and/or hazardous material of concern.

- (6) The site-specific background concentration identified in 310 CMR 40.0984(1) shall be considered.
- (7) The Practical Quantitation Limit (PQL) applicable to the oil and/or hazardous material using an appropriately sensitive analytical method for quantifying the concentration of the chemical in soil shall be identified.
- (8) For each combination of the soil and groundwater categories, the highest of the three concentrations identified in 310 CMR 40.0984(5) through (7) shall be adopted as the MCP Method 2 soil standard for that combination of soil and groundwater categories.
- (9) MCP Method 2 soil standards identified in 40.0984(8) shall be adjusted to a ceiling concentration if the calculated concentration is greater than the ceiling concentration. The ceiling concentration shall be based upon the "Odor Index" of the chemical, defined for the purposes of these regulations to be the ratio of the vapor pressure of the chemical and the 50% odor recognition level (odor threshold) for the chemical:

$$\text{Odor Index} = \text{VP} \div \text{ORL}_{50\%}$$

Where:

- VP = The vapor pressure of the oil and/or hazardous material, in units of TORR, measured at temperatures between 20° and 30° Celsius.
- ORL_{50%} = The concentration of the oil and/or hazardous material at which 50% of the general population would recognize its odor. In units: parts per million (ppm).

- (a) S-1 Standards:
 - 1. Chemicals having an Odor Index greater than or equal to 100 shall be assigned a ceiling concentration of 100 mg/kg (ppm).
 - 2. Chemicals having an Odor Index greater than or equal to one but less than 100 shall be assigned a ceiling concentration of 500 mg/kg (ppm).
 - 3. For chemicals having an Odor Index less than one or for which there is insufficient data to calculate an Odor Index, the assigned ceiling concentration shall be 1,000 mg/kg (ppm).
- (b) S-2 Standards:
 - 1. Chemicals having an Odor Index greater than or equal to 100 shall be assigned a ceiling concentration of 500 mg/kg (ppm).
 - 2. Chemicals having an Odor Index greater than or equal to one but less than 100 shall be assigned a ceiling concentration of 1,000 mg/kg (ppm).
 - 3. For chemicals having an Odor Index less than one or for which there is insufficient data to calculate an Odor Index, the assigned ceiling concentration shall be 2,500 mg/kg (ppm).
- (c) S-3 Standards:
 - 1. Chemicals having an Odor Index greater than or equal to 100 shall be assigned a ceiling concentration of 1,000 mg/kg (ppm).
 - 2. Chemicals having an Odor Index greater than or equal to one but less than 100 shall be assigned a ceiling concentration of 2,500 mg/kg (ppm).
 - 3. For chemicals having an Odor Index less than one or for which there is insufficient data to calculate an Odor Index, the assigned ceiling concentration shall be 5,000 mg/kg (ppm).

40.0985: Determination of Method 2 Soil Standards Considering Leaching Potential

MCP Method 1 Soil Standards consider both the risks associated with direct contact with the contaminated soil and the potential for the oil and/or hazardous material to leach to groundwater. The leaching component of the MCP Method 1 Soil Standards can be modified or eliminated in Method 2 considering site-specific information. The direct contact-exposure component of the standard shall not be adjusted in this Method.

(1) The development of alternative leaching-based soil concentrations or the determination that leaching-based concentrations are not applicable shall be based upon information which is scientifically justified and completely documented.

(2) When developing alternative leaching-based concentrations in soil, alternative values shall be developed for each oil and hazardous material and for each applicable groundwater category. Demonstrations that the leaching-based component of the Method 1 soil standards is not applicable may be made on a chemical-by-chemical basis or for the site as a whole, depending upon the information relevant to that determination.

(3) The following methods may be used to demonstrate that the concentrations of oil and/or hazardous material in soil at the disposal site now and in the foreseeable future will result in compliance with all applicable MCP Method 1 or 2 Groundwater Standards:

- (a) transport and fate modeling that incorporates site-specific information on source mass and subsurface hydrogeological conditions; and/or
- (b) laboratory tests that demonstrate, under site conditions, the oil and/or hazardous material in the soil will not leach to groundwater at levels which exceed the applicable MCP Method 1 or 2 Groundwater Standards.

(4) For each combination of soil category (S-1, S-2, and S-3) and groundwater category (GW-1, GW-2, and GW-3), the lower of the following is the applicable MCP Method 2 Soil Standard for the oil and/or hazardous material:

- (a) The leaching-based soil concentration identified in 310 CMR 40.0985(2) specific to the groundwater category, and
- (b) The direct contact exposure-based concentration specific to the soil category, listed in Table 5 in 310 CMR 40.0985(6). The direct contact standard is applicable when it is determined that the leaching-based component of the Method 1 standard is not applicable per 310 CMR 40.0985(2).

(5) Groundwater monitoring shall demonstrate that residual soil contamination is not and will not result in groundwater concentrations greater than the applicable MCP Method 1 or 2 Groundwater Standards. The duration of required monitoring shall depend on the source mass, the mobility of the oil and/or hazardous material, and subsurface conditions.

(6) Table 5 Lists the Direct Contact Exposure-based Soil Concentrations.

310 CMR 40.0985(6): TABLE 5 ^{††}				
MCP Method 2: DIRECT CONTACT EXPOSURE-BASED SOIL CONCENTRATIONS APPLICABLE TO THE SPECIFIED SOIL CATEGORY.				
Oil and/or Hazardous Material	CAS Number	Soil Category S-1 ug/g (ppm)	Soil Category S-2 ug/g (ppm)	Soil Category S-3 ug/g (ppm)
ACENAPHTHENE	83-32-9	1,000	3,000	5,000
ACENAPHTHYLENE	208-96-8	1,000	3,000	5,000
ACETONE	67-64-1	500	1,000	3,000
ALDRIN	309-00-2	0.09	0.5	4
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120-12-7	1,000	3,000	5,000
ANTIMONY	7440-36-0	20	40	40
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440-38-2	20	20	60
BARIUM	7440-39-3	1,000	3,000	5,000
BENZENE	71-43-2	40	200	1,000
BENZO(a)ANTHRACENE	56-55-3	20	300	2,000
BENZO(a)PYRENE	50-32-8	2	30	30
BENZO(b)FLUORANTHENE	205-99-2	20	300	2,000
BENZO(g,h,i)PERYLENE	191-24-2	1,000	3,000	5,000
BENZO(k)FLUORANTHENE	207-08-9	200	3,000	5,000
BERYLLIUM	7440-41-7	100	200	200
BIPHENYL, 1,1-	92-52-4	200	1,000	5,000
BIS(2-CHLOROETHYL)ETHER	111-44-4	2	9	90
BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	30	100	1,000
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	100	700	2,000
BROMODICHLOROMETHANE	75-27-4	40	200	500
BROMOFORM	75-25-2	300	1,000	3,000
BROMOMETHANE	74-83-9	100	700	700
CADMIUM	7440-43-9	80	80	80
CARBON TETRACHLORIDE	56-23-5	30	100	1,000
CHLORDANE	12789-03-6	6	30	60
CHLOROANILINE, p-	106-47-8	7	40	40
CHLOROBENZENE	108-90-7	500	1,000	3,000
CHLOROFORM	67-66-3	500	1,000	1,000
CHLOROPHENOL, 2-	95-57-8	100	400	400
CHROMIUM (TOTAL) *	7440-47-3	100	200	200
CHROMIUM(III)	16065-83-1	1,000	3,000	5,000
CHROMIUM(VI)	18540-29-9	100	200	200
CHRYSENE	218-01-9	200	3,000	5,000
CYANIDE **	57-12-5	30	400	500
DIBENZO(a,h)ANTHRACENE	53-70-3	2	30	200
DIBROMOCHLOROMETHANE	124-48-1	30	100	500
DICHLOROBENZENE, 1,2- (o-DCB)	95-50-1	1,000	3,000	5,000
DICHLOROBENZENE, 1,3- (m-DCB)	541-73-1	100	500	500
DICHLOROBENZENE, 1,4- (p-DCB)	106-46-7	100	400	3,000
DICHLOROBENZIDINE, 3,3'-	91-94-1	3	20	100
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	72-54-8	10	40	70
DICHLORODIPHENYL DICHLOROETHYLENE,P,P'- (DDE)	72-55-9	7	30	70
DICHLORODIPHENYL TRICHLOROETHANE, P,P'- (DDT)	50-29-3	7	30	70
DICHLOROETHANE, 1,1-	75-34-3	500	1,000	3,000
DICHLOROETHANE, 1,2-	107-06-2	30	100	1,000
DICHLOROETHYLENE, 1,1-	75-35-4	500	1,000	3,000
DICHLOROETHYLENE, CIS-1,2-	156-59-2	100	500	500
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	500	1,000	3,000
DICHLOROMETHANE	75-09-2	300	800	800
DICHLOROPHENOL, 2,4-	120-83-2	80	900	900

310 CMR 40.0985(6): TABLE 5 ^{††}				
MCP Method 2: DIRECT CONTACT EXPOSURE-BASED SOIL CONCENTRATIONS APPLICABLE TO THE SPECIFIED SOIL CATEGORY.				
Oil and/or Hazardous Material	CAS Number	Soil Category S-1	Soil Category S-2	Soil Category S-3
		ug/g (ppm)	ug/g (ppm)	ug/g (ppm)
DICHLOROPROPANE, 1,2-	78-87-5	60	300	1,000
DICHLOROPROPENE, 1,3-	542-75-6	20	100	1,000
DIELDRIN	60-57-1	0.09	0.6	4
DIETHYL PHTHALATE	84-66-2	1,000	3,000	5,000
DIMETHYL PHTHALATE	131-11-3	1,000	3,000	5,000
DIMETHYLPHENOL, 2,4-	105-67-9	500	2,000	2,000
DINITROPHENOL, 2,4-	51-28-5	50	900	900
DINITROTOLUENE, 2,4-	121-14-2	2	10	90
DIOXANE, 1,4-	123-91-1	20	100	500
ENDOSULFAN	115-29-7	300	500	500
ENDRIN	72-20-8	20	30	30
ETHYLBENZENE	100-41-4	500	1,000	3,000
ETHYLENE DIBROMIDE	106-93-4	1	5	50
FLUORANTHENE	206-44-0	1,000	3,000	5,000
FLUORENE	86-73-7	1,000	3,000	5,000
HEPTACHLOR	76-44-8	0.3	2	10
HEPTACHLOR EPOXIDE	1024-57-3	0.2	1	1
HEXACHLOROBENZENE	118-74-1	0.7	0.9	0.9
HEXACHLOROBUTADIENE	87-68-3	30	100	100
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	58-89-9	2	8	70
HEXACHLOROETHANE	67-72-1	50	300	300
HMX	2691-41-0	1,000	3,000	5,000
INDENO(1,2,3-cd)PYRENE	193-39-5	20	300	2,000
LEAD	7439-92-1	200	600	600
MERCURY	7439-97-6	20	40	40
METHOXYCHLOR	72-43-5	300	400	400
METHYL ETHYL KETONE	78-93-3	500	1,000	3,000
METHYL ISOBUTYL KETONE	108-10-1	500	1,000	3,000
METHYL MERCURY	22967-92-6	5	9	9
METHYL TERT BUTYL ETHER	1634-04-4	100	500	500
METHYLNAPHTHALENE, 2-	91-57-6	300	500	500
NAPHTHALENE	91-20-3	500	1,000	3,000
NICKEL	7440-02-0	700	1,000	1,000
PENTACHLOROPHENOL	87-86-5	3	20	80
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)***				
PERFLUORODECANOIC ACID (PFDA)	335-76-2	0.3	0.4	0.4
PERFLUOROHEPTANOIC ACID (PFHpA)	375-85-9	0.3	0.4	0.4
PERFLUOROHEXANESULFONIC ACID (PFHxS)	355-46-4	0.3	0.4	0.4
PERFLUORONONANOIC ACID (PFNA)	375-95-1	0.3	0.4	0.4
PERFLUOROOCTANESULFONIC ACID (PFOS)	1763-23-1	0.3	0.4	0.4
PERFLUOROOCTANOIC ACID (PFOA)	335-67-1	0.3	0.4	0.4
PERCHLORATE	NA	4	6	6
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON [†]	NA	1,000	3,000	5,000
ALIPHATIC HYDROCARBONS				
C5 through C8 Aliphatic Hydrocarbons	NA	100	500	500
C9 through C12 Aliphatic Hydrocarbons	NA	1,000	3,000	5,000
C9 through C18 Aliphatic Hydrocarbons	NA	1,000	3,000	5,000
C19 through C36 Aliphatic Hydrocarbons	NA	3,000	5,000	5,000
AROMATIC HYDROCARBONS				
C9 through C10 Aromatic Hydrocarbons	NA	100	500	500
C11 through C22 Aromatic Hydrocarbons	NA	1,000	3,000	5,000

310 CMR 40.0985(6): TABLE 5 ^{††}				
MCP Method 2: DIRECT CONTACT EXPOSURE-BASED SOIL CONCENTRATIONS APPLICABLE TO THE SPECIFIED SOIL CATEGORY.				
Oil and/or Hazardous Material	CAS Number	Soil Category S-1 ug/g (ppm)	Soil Category S-2 ug/g (ppm)	Soil Category S-3 ug/g (ppm)
PHENANTHRENE	85-01-8	500	1,000	3,000
PHENOL	108-95-2	500	1,000	3,000
POLYCHLORINATED BIPHENYLS (PCBs)	1336-36-3	1	4	4
PYRENE	129-00-0	1,000	3,000	5,000
RDX	121-82-4	20	90	400
SELENIUM	7782-49-2	400	800	800
SILVER	7440-22-4	100	200	200
STYRENE	100-42-5	80	300	3,000
TETRACHLORODIBENZO-p-DIOXIN (TCDD), 2,3,7,8-(equivalents)	1746-01-6	2.E-05	6.E-05	6.E-05
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	90	400	500
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	10	50	500
TETRACHLOROETHYLENE	127-18-4	100	500	800
THALLIUM	7440-28-0	8	70	90
TOLUENE	108-88-3	500	1,000	3,000
TRICHLOROBENZENE, 1,2,4-	120-82-1	700	3,000	5,000
TRICHLOROETHANE, 1,1,1-	71-55-6	500	1,000	3,000
TRICHLOROETHANE, 1,1,2-	79-00-5	40	200	500
TRICHLOROETHYLENE	79-01-6	30	70	70
TRICHLOROPHENOL, 2,4,5-	95-95-4	1,000	3,000	5,000
TRICHLOROPHENOL 2,4,6-	88-06-2	30	400	400
VANADIUM	7440-62-2	500	800	800
VINYL CHLORIDE	75-01-4	0.3	10	100
XYLENES (Mixed Isomers)	1330-20-7	500	1,000	3,000
ZINC	7440-66-6	1,000	3,000	5,000
NOTE: All concentrations of oil and/or hazardous material in soil are calculated and presented on a dry weight/dry weight basis.				
NA - Not Applicable				
* - The Total Chromium standard is applicable in the absence of species-specific data for Chromium III and Chromium VI.				
** - Cyanide expressed as Physiologically Available Cyanide (PAC). In the absence of measured Physiologically Available Cyanide, the standard is applicable to Total Cyanide.				
*** - The listed compounds and associated CAS numbers are for the acid forms of these PFAS compounds. The information presented in Table 5 are also applicable to the respective anionic forms of these compounds. These anions may form salts with any of a number of cations resulting in a variety of possible chemical species, each having a unique CAS number.				
† - The Total Petroleum Hydrocarbon (TPH) standard may be used as an alternative to the appropriate combinations of the Aliphatic and Aromatic Hydrocarbon Fraction standards. The use of the general TPH standard is a valid option only for C9 and greater petroleum hydrocarbons; it is not appropriate for the characterization of risks associated with lighter (gasoline-range) hydrocarbons.				
†† - The Department periodically reviews the scientific basis for these Standards and amends them, as appropriate, to incorporate new scientific information.				

40.0986: Determination of Method 2 GW-2 Standards.

- (1) MCP Method 1 GW-2 Standards consider the potential for oil and/or hazardous material to volatilize from the groundwater and migrate to indoor air. These standards may be modified under Method 2, or a determination may be made that one or more GW-2 standards are not applicable, based upon site-specific conditions. Modifications of a standard will result in a proposed MCP Method 2 GW-2 Standard. Proposed Method 2 standards or the determination that one or more GW-2 standards are not applicable shall be scientifically justified and sufficiently documented to demonstrate that the Response Action Performance Standard, described in 310 CMR 40.0191 has been met.
- (2) An MCP Method 2 GW-2 Standard shall be protective of migration of oil and/or hazardous

material into indoor air. The presence of oil and/or hazardous material in the groundwater at the proposed MCP Method 2 GW-2 Standard below or near a building shall not result in indoor air concentrations which pose a significant risk of harm to health, public welfare or the environment. The MCP Method 2 GW-2 Standard may be greater or less than the corresponding MCP Method 1 GW-2 Standard, or it may be determined that the Method 1 Standard is not applicable, based upon site-specific conditions. The development of such standards shall be documented by:

- (a) site-specific information on source, hydrogeological, and building conditions which demonstrates that the oil and/or hazardous material in the groundwater will not infiltrate to indoor air and result in significant risk of harm to health, public welfare or the environment; and/or
- (b) soil gas characterization data, indoor air characterization data, and other information and data resulting from field investigation conducted at and proximate to the disposal site.

40.0987: Determination of MCP Method 2 GW-3 Standards.

(1) MCP Method 1 GW-3 Standards consider potential migration of oil and/or hazardous material to surface water. These standards may be modified under Method 2 based upon site-specific conditions to develop MCP Method 2 GW-3 Standards or it may be determined that a discharge to surface water will not occur. The proposed Method 2 modification shall be scientifically justified and sufficiently documented to demonstrate that the Response Action Performance Standard, described in 310 CMR 40.0191, has been met.

(2) An MCP Method 2 GW-3 standard or determination shall be protective of migration of oil and/or hazardous material into surface waters and wetlands. The presence of an oil and/or hazardous material in the groundwater must not result in concentrations in a surface water or wetland which would pose a significant risk of harm to health, public welfare or the environment. The MCP Method 2 GW-3 Standard may be greater or less than the corresponding MCP Method 1 GW-3 Standard, or it may be determined that the Method 1 GW-3 standard is not applicable, considering site-specific conditions. The development of such standards or such a determination shall be documented by:

- (a) transport and fate modeling that incorporates site-specific information on the source and subsurface hydrological conditions, and which demonstrates that the release will not result in concentrations of oil and/or hazardous material in the receiving surface water which exceed any applicable or suitably analogous standards described in 310 CMR 40.0993(3), and which do not otherwise result in a significant risk of harm to health, safety, public welfare or the environment; and/or
- (b) long-term groundwater monitoring which demonstrates that the release will not result in concentrations of oil and/or hazardous material in the receiving surface water which exceed any applicable or suitably analogous standards described in 310 CMR 40.0993(3), and which do not otherwise result in a significant risk of harm to health, safety, public welfare or the environment. The duration of required monitoring would depend on the source mass, the mobility of the oil and/or hazardous material, and subsurface conditions.

40.0988: Method 2 Risk Characterization.

(1) When conducting a Method 2 Risk Characterization, the risk of harm to health, public welfare and the environment shall be characterized using the methodology described in 310 CMR 40.0970 (Risk Characterization Method 1), and any applicable MCP Method 1 Standards in combination with one or more MCP Method 2 Standards identified pursuant to 310 CMR 40.0980.

(2) A condition of no significant risk of harm to health, safety, public welfare and the environment exists if no Exposure Point Concentration is greater than the applicable MCP Method 1 and Method 2 Soil or Groundwater Standard. If the Method 1 or Method 2 Soil or Groundwater Standard for Total Petroleum Hydrocarbon is exceeded, a condition of No Significant Risk shall still be considered to exist if the Exposure Point Concentrations of the Aliphatic and Aromatic Hydrocarbon Fractions comprising the TPH are less than or equal to the applicable Method 1 or Method 2 Soil and Groundwater Standards.

(3) The documentation of the Method 2 Risk Characterization shall clearly state whether or not a condition of no significant risk of harm to health, public welfare or the environment exists or has been achieved at the disposal site.

40.0990: Risk Characterization Method 340.0991 Applicability of Method 3

Method 3 may be used to characterize the risk of harm to health, public welfare and the environment for any disposal site. In a Method 3 Risk Characterization, the risks of harm to health, public welfare and the environment are evaluated separately.

40.0992: General Approach to Method 3

Method 3 relies upon detailed information about the site, the oil and/or hazardous material, and potential exposures to Human and Environmental Receptors under all current and reasonably foreseeable Site Activities and Uses to characterize the risk of harm. The scope and level of effort of the Method 3 Risk Characterization shall reflect the site-specific nature of this Method, and the information used to characterize the risk shall be sufficiently documented to demonstrate that the Response Action Performance Standard, described in 310 CMR 40.0191, has been met.

- (1) The Method 3 Risk Characterization shall be performed in a manner consistent with scientifically acceptable risk assessment practices, and consider guidance published by the Department and EPA.
- (2) In performing a Method 3 Risk Characterization, the objective shall be to provide a conservative estimate of the impact that the oil and/or hazardous material may have on the Human and Environmental Receptors at the disposal site and in the surrounding environment.
- (3) This Risk Characterization process makes use of existing standards, Upper Concentration Limits in Groundwater and Soil, quantitative estimates of cancer and noncancer health risks, and both quantitative and qualitative evaluations of risk to public welfare and the environment to determine the need for a remedial action or to demonstrate that a condition of No Significant Risk exists or has been achieved.
 - (a) The Method 3 characterization of the risk of harm to human health is described in 310 CMR 40.0993.
 - (b) The Method 3 characterization of the risk of harm to public welfare is described in 310 CMR 40.0994.
 - (c) The Method 3 characterization of the risk of harm to the environment is described in 310 CMR 40.0995.
 - (d) The list of Upper Concentration Limits in Groundwater and Soil is in 310 CMR 40.0996(8).
- (4) The risk of harm to safety shall also be characterized, as described in 310 CMR 40.0960.

40.0993: Method 3 Human Health Risk Characterization

Under Method 3, the risk of harm to human health shall be characterized for all current and reasonably foreseeable Site Activities and Uses identified in 310 CMR 40.0923, as follows:

- (1) The site, receptor and exposure information described in 310 CMR 40.0901 through 40.0920 shall be identified and documented.
- (2) The groundwater and soil categories applicable to the disposal site shall be identified and documented, as described in 310 CMR 40.0930. The groundwater and soil categories shall be considered as general indicators of exposure potential in a Method 3 evaluation.
- (3) All applicable or suitably analogous health standards shall be identified in the documentation of the Method 3 Risk Characterization. The MCP Method 1 Groundwater and Soil Standards listed in 310 CMR 40.0970 are not considered applicable or suitably analogous, as those standards represent an alternative approach to Method 3. The list of potentially applicable or suitably analogous standards includes, but is not limited to:
 - (a) Massachusetts Drinking Water Quality Standards promulgated in 310 CMR 22.00: *Drinking Water*, including the requirements described at 310 CMR 22.03(8), which are considered applicable to all category GW-1 groundwater;
 - (b) Massachusetts Air Quality Standards promulgated in 310 CMR 6.00: *Ambient Air Quality Standards for the Commonwealth of Massachusetts*; and
 - (c) Massachusetts Surface Water Quality Standards promulgated in 314 CMR 4.00: *Massachusetts Surface Water Quality Standards*.

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(4) The frequency, duration and intensity of exposure to each oil and/or hazardous material at the disposal site for each receptor at each Exposure Point shall be determined and documented, considering the current and reasonably foreseeable Site Activities and Uses identified for the disposal site. The magnitude of each receptor's total exposure to the oil and/or hazardous material at the disposal site is calculated in a manner which provides a conservative estimate of the potential exposures. Assessments conducted using a probabilistic analysis shall identify the 95th percentile estimate of each receptor's potential exposure.

(5) For each identified Human Receptor, cumulative cancer risks and cumulative non-cancer risks shall be calculated.

(a) Chemical-specific toxicity information used to estimate the cancer and non-cancer risks shall be identified and documented, and the selection of this information shall take into account standards and guidance published by the Department. Primary consideration shall be given to information developed by the Massachusetts Department of Environmental Protection for the purpose of conducting such risk assessments. Examples of such toxicity information include:

1. Reference Doses and Reference Concentrations; and
2. Carcinogenic Slope Factors and Unit Risks values.

(6) When identifying toxicity values for use in a Method 3 Risk Characterization, toxicity values developed by MassDEP shall be used.

(a) For perchlorate, a chronic and subchronic reference dose of 7E-5 mg/(kg-day).

(b) For methyl tert-butyl ether, a chronic RfD of 1E-1 mg/(kg-day).

(c) For methyl tert-butyl ether, a subchronic RfD of 1E0 mg/(kg-day).

(d) For tetrachloroethylene, an oral cancer slope factor of 2E-2 per mg/(kg-day).

(e) For tetrachloroethylene, an inhalation unit risk of 3E-6 per ug/cubic meter.

(f) For the sum of the following per- and polyfluoroalkyl substances (PFAS), a chronic and subchronic reference dose of 5E-6 mg/kg/day:

1. Perfluorodecanoic acid (PFDA);
2. Perfluoroheptanoic acid (PFHpA);
3. Perfluorohexanesulfonic acid (PFHxS);
4. Perfluorononanoic acid (PFNA);
5. Perfluorooctanesulfonic acid (PFOS); and
6. Perfluorooctanoic acid (PFOA).

(7) If an applicable toxicity value is not listed at 310 CMR 40.0993(6), technical justification for the value selected must be provided. Preferential consideration shall be given to sources of toxicity values in accordance with the following hierarchy:

(a) Toxicity values adopted and otherwise published by MassDEP;

(b) Toxicity values listed in EPA's Integrated Risk Information System (IRIS) database; and

(c) Other EPA and non-EPA sources, including but not limited to EPA Provisional Peer Reviewed Toxicity Values (PPRTVs); Minimum Risk Levels (MRLs) published by U.S. Agency for Toxic Substances and Disease Registry (ATSDR); and values published by California Environmental Protection Agency. In selecting a source for a toxicity value, there should be a preference for toxicity assessments that are informed by current scientific information and account for the most sensitive endpoints.

(8) For receptors who may be exposed to mixtures of oil and/or hazardous material, or through multiple Exposure Pathways at the disposal site, the cumulative risk shall reflect those multiple exposures. Risk estimates are presumed to be additive unless an alternative mechanism is demonstrated to be appropriate.

(9) Risk calculations performed using a probabilistic analysis shall identify the cumulative cancer and non-cancer risks associated with the 95th percentile estimate of exposure.

(10) The Cumulative Receptor Cancer Risks shall be compared to a Cumulative Cancer Risk Limit which is an Excess Lifetime Cancer Risk equal to one-in-one hundred thousand. Cumulative Receptor Non-cancer Risks shall be compared to a Cumulative Non-cancer Risk Limit which is a Hazard Index equal to one. Estimated Exposure Point Concentrations shall be compared to any applicable or suitably analogous standards.

(11) A condition of no significant risk of harm to human health exists or has been achieved if:

- (a) no Exposure Point Concentration of oil and/or hazardous material is greater than an applicable

or suitably analogous public health standard;

(b) no Cumulative Receptor Cancer Risk calculated is greater than the Cumulative Cancer Risk Limit; and

(c) no Cumulative Receptor Non-cancer Risk is greater than the Cumulative Receptor Non-cancer Risk Limit.

(12) The documentation of the Method 3 human health Risk Characterization shall clearly state whether or not a condition of no significant risk of harm to human health exists or has been achieved, based upon the criteria described in 310 CMR 40.0993(11).

(13) All mathematical equations used to calculate cumulative receptor cancer and non-cancer risks shall be clearly presented and documented.

40.0994: Method 3 Public Welfare Risk Characterization

Purpose. There are two purposes for conducting a characterization of risk to public welfare: (a) to identify and evaluate nuisance conditions which may be localized, and (b) to identify and evaluate significant community effects. The characterization of risk to public welfare shall consider effects which are or may result from the presence of residual contamination or the implementation of a proposed remedial alternative.

The characterization of risk to public welfare shall be conducted for all current and reasonably foreseeable Site Activities and Uses identified in 310 CMR 40.0923, as follows:

(1) The characterization of the risk of harm to public welfare shall consider the site, receptor, and exposure information identified in 310 CMR 40.0901 through 40.0930, as well as data collected pursuant to the response action(s) being performed.

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- (2) the characterization of the risk to public welfare shall, in addition to those factors identified in 310 CMR 40.0994(1), also consider such factors as the existence of nuisance conditions, loss of active or passive property use(s), and any non-pecuniary effects not otherwise considered in the characterization of risk of harm to health, safety, and the environment but which may accrue due to the degradation of public resources directly attributable to the release or threat of release of oil and/or hazardous material or the remedial alternative.
- (3) The risk of harm to public welfare shall also be characterized by comparing the concentration of each oil or hazardous material to the Upper Concentration Limits in Soil and Groundwater, as described at 310 CMR 40.0996.
- (4) A level of no significant risk of harm to public welfare exists or has been achieved if:
 - (a) No nuisance conditions exist or will result from the release or threat of release of oil or hazardous material, or the remedial alternative, including:
 1. The breathing zone of ambient and indoor air are currently and will, in the reasonably foreseeable future, remain free from persistent, noxious odors,
 2. There is accessible drinking water that is and will, in the reasonably foreseeable future, remain free from noxious taste and odors; and
 3. Livestock is and will remain, in the reasonably foreseeable future, free from harmful effects. No specific evaluation of livestock is required if it is reasonable to conclude that the human health and environmental risk characterizations conducted for the site are also protective of livestock exposures.
 - (b) No community that is currently affected and/or community for which it is reasonably foreseeable to conclude that it could be affected by the release experiences significant adverse impacts as set forth as the factors to be considered in 310 CMR 40.0994(2); and
 - (c) The requirements of 310 CMR 40.0996 concerning the Upper Concentration Limits are met.
- (5) The documentation of the Method 3 public welfare Risk Characterization shall clearly state whether or not a condition of no significant risk of harm to public welfare exists or has been achieved at the current and reasonably foreseeable Site Activities and Uses.

40.0995: Method 3 Environmental Risk Characterization

The characterization of risk of harm to the environment shall be conducted for all current and reasonably foreseeable Site Activities and Uses identified in 310 CMR 40.0923. Characterization of the risk of harm to the environment shall include an assessment of chemical data, potential contaminant migration pathways, and an evaluation of biota and habitats at and in the vicinity of the disposal site, as described in 310 CMR 40.0995(2), as well as through the application of Upper Concentration Limits, as described in 310 CMR 40.0995(5).

- (1) A Method 3 characterization of the risk of harm to the environment shall be based on the site, receptor and exposure information identified in 310 CMR 40.0901 through 40.0920, as well as any relevant data collected during the response action being performed.
- (2) The risk of harm to the site biota and habitats shall be characterized by evaluating ecological parameters using a two-stage approach. In Stage I, the objective is to identify and document conditions which do not warrant a Stage II Risk Characterization, either because of the absence of a potentially significant exposure pathway or because environmental harm is readily apparent and therefore additional assessment would be redundant. If a potentially significant exposure pathway is indicated by the available information per 310 CMR 40.0995(3)(a) and (c), then a Stage II Environmental Risk Characterization is required to characterize the risks posed by those exposures.
 - (a) A Stage I Environmental Screening shall be performed as described in 310 CMR 40.0995(3) for all disposal sites evaluated using Risk Characterization Method 3, and for those disposal sites evaluated using a Method 3 Environmental Risk Characterization in combination with Method 1 or Method 2 as described in 310 CMR 40.0942.
 - (b) Following a Stage I Environmental Screening and based upon the criteria described in 310 CMR 40.0995(3), it may be concluded that:
 1. A Stage II Environmental Risk Characterization is not required because there are no complete exposure pathways that could result in potentially significant exposures, and a condition of no significant risk of harm to site biota and habitats clearly exists, or

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2. A Stage II Environmental Risk Characterization is not required because, for each contaminated medium, harm is readily apparent; therefore a condition of no significant risk of harm to the site biota and habitats clearly *does not exist*, and a Stage II Environmental Risk Characterization would be redundant, or
 3. A Stage II Environmental Risk Characterization is required because, for one or more contaminated media, there is not enough information to determine whether or not a condition of no significant risk of harm exists, and therefore those media are considered to present "potentially significant exposures".
- (c) The scope and nature of the Stage II Environmental Risk Characterization shall depend on the nature of the disposal site, the Environmental Receptors affected or potentially affected, and the Stage I Environmental Screening criteria which indicated the need for the Stage II Environmental Risk Characterization.

(3) Stage I Environmental Screening. Exposures of site biota and habitats shall be characterized by the Stage I Environmental Screening as follows:

(a) Available evidence shall be evaluated to determine whether there is current or potential future exposure of Environmental Receptors to contamination at or from the disposal site. Sources of such evidence shall include historical records, site data, field observations, statements by present and past residents or employees, and any other relevant source.

1. Evidence of current or potential exposure shall include, but is not limited to:
 - a. Current or past visible physical evidence that oil and/or hazardous material at or from the disposal site have come to be located in surface soil, surface water, sediment or wetlands. Examples of such evidence include, without limitation, the presence of sheens from oil and/or hazardous material, NAPL, oil, tar or other solid or semisolid hazardous material in surface soil, surface water, sediment or wetlands;
 - b. Records or other evidence of current or past impacts of oil and/or hazardous material from the disposal site on wildlife, fish, shellfish or other aquatic biota. Examples of such impacts include, without limitation, fish kills and abiotic conditions;
 - c. Analytical data indicating the presence of oil and/or hazardous material attributable to the site in question in surface water or sediment (including wetlands);
 - d. The potential for the transport of oil and/or hazardous material in the groundwater or surface runoff to such receptors as surface water or sediments (including wetlands) identified as Environmental Receptors; or
 - e. The presence of oil and/or hazardous material at the disposal site within two feet of the ground surface and the potential for such contamination to result in exposure to wildlife.
2. If no current or potential future exposure is identified, then a condition of "no significant risk of harm" to the site biota and habitats exists or has been achieved, and a Stage II Environmental Risk Characterization is not required.

(b) If any current or potential future exposure is identified, then for each such exposure, site conditions shall be evaluated to determine whether significant environmental harm is "readily apparent."

1. The following conditions shall represent "readily apparent harm:":
 - a. Visual evidence of stressed biota attributable to the release at the disposal site, including, without limitation, fish kills or abiotic conditions;
 - b. The existence of oil and/or hazardous material attributable to the disposal site in concentrations which exceed Massachusetts Surface Water Standards promulgated in 314 CMR 4.00: *Massachusetts Surface Water Quality Standards*, which include USEPA Ambient Water Quality Criteria applied pursuant to 314 CMR 4.05(5)(e).
 - c. Visible presence of oil, tar, Manufacture Gas Plant Waste, or other non-aqueous phase hazardous material in soil within three feet of the ground surface over an area equal to or greater than two acres, or over an area equal to or greater than 1,000 square feet in sediment within one foot of the sediment surface.
2. If a condition of readily apparent harm exists in any environmental medium, then a condition of "no significant risk of harm" does not exist, and a Stage II Environmental Risk Characterization is not required to make that determination for that medium.

(c) Each current and potential future exposure Pathway identified in 310 CMR 40.0995(3)(a) must be evaluated to determine whether it could result in potentially significant exposure.

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1. Any potential exposure identified in 40.0995(3)(a) must be considered a “potentially significant exposure” unless it can be ruled out as such using:
 - a. USEPA Ambient Water Quality Criteria and Massachusetts Surface Water Standards promulgated in 314 CMR 4.00: *Massachusetts Surface Water Quality Standards*;
 - b. environmental concentrations specifically adopted by the Department as screening criteria; or
 - c. site size, location, and/or landscape characteristics specifically adopted by the Department as screening criteria.
 2. If, through the application of the screening criteria identified in 310 CMR 40.0995(3)(c)1., an environmental medium (such as soil, sediment or surface water) can be screened out as a source of “potentially significant exposures”, then a Stage II Environmental Risk Characterization is not required for any exposure pathway for which that medium is the contaminant source.
 3. If current or potential future exposures to contaminants in any media are not ruled out in Stage I Screening, those exposures are considered to be “potentially significant exposures” and a Stage II Environmental Risk Characterization is required to determine whether a condition of “no significant risk of harm” exists.
- (4) Stage II Environmental Risk Characterization: A Stage II Environmental Risk Characterization shall be used to determine whether there is significant risk of environmental harm or evidence of environmental harm.
- (a) The Stage II Environmental Risk Characterization shall be conducted under the supervision of an individual trained and knowledgeable in ecological studies.
 - (b) The Stage II Environmental Risk Characterization shall identify environmental resources associated with the disposal site, such as wetlands, aquatic and terrestrial habitat, fisheries, or rare and endangered species, and shall evaluate whether the release of oil and/or hazardous material has adversely impacted, or may adversely impact the ecological functions which support those resources.
 1. The evaluation shall focus on ecological functions at the spatial scale of the disposal site.
 2. The relevance of potential impacts shall be judged at the spatial scale of the disposal site (*e.g.*, effects on subpopulations that use the site as habitat) rather than the proportional significance of the site to regional environmental resources.
 - (c) The Stage II Risk Characterization shall include, but is not limited to, the following steps:
 1. Problem Formulation. The first phase of the assessment shall establish the goals, scope and focus of the Stage II Environmental Risk Characterization. A baseline site survey to identify biota and exposures of potential concern shall be conducted. Available scientific literature shall be used to identify potential adverse effects of concern.
 - a. Assessment endpoints shall be identified. The combination of assessment endpoints selected for a site must represent the ecological entities, characteristics and functions most likely to be adversely affected by the oil and/or hazardous material in each contaminated medium at the site. The assertion that the selected assessment endpoints are representative of the exposed biota on the basis of their susceptibility to harm by the contamination of concern must be justified and documented, either on a case-by-case basis or by citing DEP guidance. Assessment endpoints shall be defined in terms of ecological entities and their characteristics and functions, as follows:
 - i. An ecological entity refers to an organism, a species, a functional group of species, a community, an ecosystem, or a habitat.
 - ii. Valued characteristics include but are not limited to growth, reproduction, survival, nutrient cycling, and habitat functions, health of local populations or sub-populations and community diversity.
 - b. Measures of exposure shall consider the spatial and temporal distribution of oil and hazardous material, and shall represent the co-occurrence of contamination with the assessment endpoint organisms.
 - c. Measures of effects shall be selected for each assessment endpoint, such that the results of the measures will enable the detection of adverse effects of oil and hazardous material on the assessment endpoint. The relevance and validity of the proposed measures of effects shall be documented. Measures of effects may include, but are not limited to:

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- i. Comparison of environmental concentrations to ecologically based benchmarks published in the scientific literature, technical literature or government documents;
 - ii. toxicity data reported in scientific literature;
 - iii. site-specific toxicity tests to evaluate the effects of contaminated media on survival, growth, and/or reproduction of the target organisms;
 - iv. quantitative or semi-quantitative field surveys to evaluate adverse impacts on receptor subpopulations or communities exposed to oil or hazardous materials at or from the site; and
 - v. field experiments.
2. Analysis. The second phase of the risk assessment shall characterize any actual and potential environmental exposures and associated ecological effects.
3. Risk Characterization. In the final phase of the risk assessment, the results of the environmental exposure and effects analysis shall be used to evaluate the likelihood of adverse ecological effects. The documentation of the Risk Characterization shall include a summary of assumptions, scientific uncertainties, strengths and weaknesses of the analyses, and justification of conclusions reached concerning the ecological significance of the risks.
- (d) The Stage II Environmental Risk Characterization may also include the development of an environmental risk-based guideline for oil and/or hazardous material for which no environmental standards exists, and to the extent sufficient information concerning the environmental risks posed by the oil and/or hazardous material is available. Such guidelines shall be developed in a manner consistent with scientifically acceptable practices, taking into account guidance published by the Department or the U.S. Environmental Protection Agency, and information from the scientific literature, laboratory studies or field studies.
- (e) Conclusions. A level of no significant risk of harm to the environment exists, or has been achieved, if:
 1. there is no physical evidence of a continuing release of oil and/or hazardous material at or from the disposal site to surface waters and wetlands which significantly affects Environmental Receptors; and
 2. there is no evidence of biologically significant harm (at the subpopulation, community, or system-wide level) known or believed to be associated with current or foreseeable future exposure of wildlife, fish, shellfish or other aquatic biota to oil and/or hazardous material at or from the disposal site; and
 3. concentrations of oil and/or hazardous material at or from the disposal site do not and are not likely to exceed any applicable or suitably analogous environmental standards which have been formally promulgated, including Massachusetts Surface Water Quality Standards promulgated at 314 CMR 4.00: *Massachusetts Surface Water Quality Standards* at current and reasonably foreseeable Exposure Points; and
 4. there is no indication of the potential for biologically significant harm (at the subpopulation, community, or system-wide level), either currently or for any foreseeable period of time, to Environmental Receptors considering their potential exposures to oil and/or hazardous material and the toxicity of the OHM.
- (5) The risk of harm to the environment shall also be characterized by comparing the concentration of each oil or hazardous material to the Upper Concentration Limits in Soil and Groundwater, as described in 310 CMR 40.0996.
- (6) The documentation of the Method 3 environmental Risk Characterization shall clearly state whether or not a condition of no significant risk of harm to environmental resources, biota and habitats exists or has been achieved at the disposal site.

40.0996: Method 3 Upper Concentration Limits

- (1) Upper Concentration Limits (UCLs) are concentrations of oil and/or hazardous material in soil or groundwater at the disposal site which, if exceeded under the conditions specified in 310 CMR 40.0996, constitute a significant risk of harm to public welfare and the environment under future conditions.
- (2) Characterization of risk of harm to public welfare and the environment shall in all cases include, but not necessarily be limited to, comparison of concentrations of oil and/or hazardous material in soil and groundwater at the disposal site with Upper Concentration Limits, which are listed in 310 CMR 40.0996(8) or identified pursuant to 310 CMR 40.0996(9). Concentrations oil and/or hazardous material listed as Soil Upper Concentration Limits at 310 CMR 40.0996(8) shall be considered applicable Upper Concentration Limits for concentrations of oil and/or hazardous material detected

within waste material, including Manufactured Gas Plant Waste, itself.

(3) Comparisons of oil and/or hazardous material concentrations in soil and groundwater at the disposal site to Upper Concentration Limits shall be made using:

- (a) the arithmetic average of the concentration of oil or hazardous material in soil and groundwater at a disposal site; and

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- (b) the arithmetic average of the concentration of oil or hazardous material within any Hot Spot identified at the disposal site.
- (4) Except as provided in 310 CMR 40.0996(6), a level of No Significant Risk of harm to public welfare and to the environment does not exist for future conditions if the concentration of one or more oil and/or hazardous material exceeds an applicable Upper Concentration Limit, as described at 310 CMR 40.0996(3). The disposal site may, however, pose No Significant Risk for current conditions and thus meet the conditions of a Temporary Solution as described in 310 CMR 40.1050 if all other requirements for a Temporary Solution are satisfied.
- (5) For a disposal site where the Upper Concentration Limit in soil or groundwater for Total Petroleum Hydrocarbon is exceeded, a condition of No Significant Risk shall still be considered to exist if the concentrations of the Aliphatic and Aromatic Hydrocarbon Fractions comprising the TPH are less than or equal to the applicable Upper Concentration Limits of such fractions in soil and groundwater.
- (6) For a disposal site at which the concentration of one or more oil and/or hazardous material in Soil exceeds an Upper Concentration Limit, a level of No Significant Risk of harm to public welfare and to the environment exists or has been achieved for both current and future conditions if a finding of No Significant Risk of harm to public welfare and the environment has been made pursuant to 310 CMR 40.0994 and 40.0995, respectively, an Activity and Use Limitation is implemented as required in 310 CMR 40.1012(2), and the Soil with concentrations exceeding an Upper Concentration Limit:
 - (a) has been permanently immobilized or fixated as part of a remedial action;
 - (b) is located at a depth greater than 15 feet from the ground surface; or
 - (c) is located beneath an Engineered Barrier implemented pursuant to the requirements at 310 CMR 40.0996(7).
- (7) An Engineered Barrier means a permanent cap with or without a liner that is designed, constructed and maintained in accordance with scientific and engineering standards to achieve a level of no significant risk for any foreseeable period of time.
 - (a) An Engineered Barrier shall:
 - 1. prevent direct contact with contaminated media;
 - 2. control any vapors or dust emanating from contaminated media;
 - 3. prevent erosion and any infiltration of precipitation or run-off that could jeopardize the integrity of the barrier or result in the potential mobilization and migration of contaminants;
 - 4. be comprised of materials that are resistant to degradation;
 - 5. be consistent with the technical standards of RCRA Subpart N, 40 CFR 264.300, 310 CMR 30.600: *Technical Standards for All Hazardous Waste Facilities* or equivalent standards;
 - 6. include a defining layer that visually identifies the beginning of the barrier;
 - 7. be appropriately monitored and maintained to ensure the long-term integrity and performance in accordance with a monitoring and maintenance plan that shall be submitted to the Department and shall document that one or more financial assurance mechanism(s) as specified at 310 CMR 40.0996(7)(c.) have been established which adequately provide for ongoing future monitoring, maintenance and any necessary repair or replacement of the barrier;
 - (b) An Engineered Barrier shall not include an existing building, structure or cover material unless it is designed and constructed to serve as an Engineered Barrier pursuant to the requirements of 310 CMR 40.0996(7).
 - (c) Financial Assurance Mechanism required for the implementation of an Engineered Barrier shall:
 - 1. for any state agency or state authority, either be consistent with the specifications in 310 CMR 30.906: *Financial Assurance for Post-closure Care* or consist of an agreement executed between such agency or authority and the Department that documents such agency's or authority's commitment to the maintenance, and if necessary, the timely repair and replacement of the Engineered Barrier; and
 - 2. for any other person, be consistent with the specifications in 310 CMR 30.906: *Financial Assurance for Post-closure Care*.
 - (d) Pursuant to 310 CMR 40.0414(7), 310 CMR 40.442(4), and 310 CMR 40.859(4), an Engineered Barrier shall not be implemented as part of a Permanent Solution unless and until a Phase III feasibility evaluation has been conducted pursuant to 310 CMR 40.0850 and such evaluation demonstrates the lack of a feasible alternative.

40.0996: continued

- (8) Table 6 lists the Upper Concentration Limits in Groundwater and Soil.
- (9) Except as specified in 310 CMR 40.0996(9)(c) for any oil or hazardous material not listed in Table 6 at 310 CMR 40.0996(8), either a default or chemical-specific Upper Concentration Limit must be used.
- (a) The default Upper Concentration Limit in Groundwater shall be 10,000 ug/L and the default Upper Concentration Limit in Soil shall be 1,000 ug/g.
 - (b) The chemical-specific Upper Concentration Limits shall be calculated using the methodology presented at 310 CMR 40.0983 and 40.0984.
 - 1. The Upper Concentration Limit in Groundwater shall be equal to ten times the highest groundwater standard calculated at 310 CMR 40.0983 or 100,000 ug/L, whichever is lower.
 - 2. The Upper Concentration Limit in Soil shall be equal to ten times the highest soil standard calculated at 310 CMR 40.0984, or 10,000 ug/g, whichever is lower.
 - (c) For the following oil and/or hazardous material, the Upper Concentration Limits in Soil and Groundwater are not applicable. As a result, the comparison of site concentrations to Upper Concentration Limits pursuant to 310 CMR 40.0996(3) is not required, and the need for an Activity and Use Limitation shall not be determined by comparison to an Upper Concentration Limit in Soil, as described in 310 CMR 40.1012(2)(a)3. and 310 CMR 40.1012(3)(b).
 - 1. aluminum
 - 2. asbestos
 - 3. calcium
 - 4. iron
 - 5. potassium (excluding elemental potassium)
 - 6. sodium (excluding elemental sodium)
- (10) Ongoing monitoring shall be performed as necessary to ensure that a condition of No Significant Risk is maintained at any disposal site where a Permanent Solution has been achieved and the concentration of one or more oil and/or hazardous material is greater than the Upper Concentration Limit. The results of such monitoring shall be submitted to the Department.

310 CMR 40.0996(8): TABLE 6 ^{††}			
MCP Method 3: UPPER CONCENTRATION LIMITS (UCLs) IN GROUNDWATER AND SOIL			
Oil and/or Hazardous Material	CAS Number	UCLs IN GROUNDWATER ug/L (ppb)	UCLs IN SOIL ug/g (ppm)
ACENAPHTHENE	83-32-9	100,000	10,000
ACENAPHTHYLENE	208-96-8	100,000	10,000
ACETONE	67-64-1	100,000	10,000
ALDRIN	309-00-2	300	40
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)			
ANTHRACENE	120-12-7	1,000	10,000
ANTIMONY	7440-36-0	80,000	400
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)			
ARSENIC	7440-38-2	9,000	600
BARIUM	7440-39-3	100,000	10,000
BENZENE	71-43-2	100,000	10,000
BENZO(a)ANTHRACENE	56-55-3	10,000	10,000
BENZO(a)PYRENE	50-32-8	5,000	300
BENZO(b)FLUORANTHENE	205-99-2	4,000	10,000
BENZO(g,h,i)PERYLENE	191-24-2	500	10,000
BENZO(k)FLUORANTHENE	207-08-9	1,000	10,000
BERYLLIUM	7440-41-7	2,000	2,000
BIPHENYL, 1,1-	92-52-4	100,000	10,000
BIS(2-CHLOROETHYL)ETHER	111-44-4	100,000	900
BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	100,000	10,000
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	100,000	10,000
BROMODICHLOROMETHANE	75-27-4	100,000	5,000
BROMOFORM	75-25-2	100,000	10,000
BROMOMETHANE	74-83-9	8,000	7,000
CADMIUM	7440-43-9	80	800
CARBON TETRACHLORIDE	56-23-5	50,000	10,000
CHLORDANE	12789-03-6	20	600
CHLOROANILINE, p-	106-47-8	100,000	400
CHLOROBENZENE	108-90-7	10,000	10,000
CHLOROFORM	67-66-3	100,000	10,000
CHLOROPHENOL, 2-	95-57-8	100,000	4,000
CHROMIUM (TOTAL) *	7440-47-3	3,000	2,000
CHROMIUM(III)	16065-83-1	6,000	10,000
CHROMIUM(VI)	18540-29-9	3,000	2,000
CHRYSENE	218-01-9	700	10,000
CYANIDE **	57-12-5	2,000	5,000
DIBENZO(a,h)ANTHRACENE	53-70-3	400	2,000
DIBROMOCHLOROMETHANE	124-48-1	100,000	5,000
DICHLOROBENZENE, 1,2- (o-DCB)	95-50-1	80,000	10,000
DICHLOROBENZENE, 1,3- (m-DCB)	541-73-1	100,000	5,000
DICHLOROBENZENE, 1,4- (p-DCB)	106-46-7	80,000	10,000
DICHLOROBENZIDINE, 3,3'-	91-94-1	20,000	1,000
DICHLORODIPHENYL DICHLOROETHANE, P,P'- (DDD)	72-54-8	500	700
DICHLORODIPHENYL DICHLOROETHYLENE,P,P'- (DDE)	72-55-9	4,000	700
DICHLORODIPHENYL TRICHLOROETHANE, P,P'- (DDT)	50-29-3	10	700
DICHLOROETHANE, 1,1-	75-34-3	100,000	10,000
DICHLOROETHANE, 1,2-	107-06-2	100,000	10,000
DICHLOROETHYLENE, 1,1-	75-35-4	100,000	10,000
DICHLOROETHYLENE, CIS-1,2-	156-59-2	100,000	5,000
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	100,000	10,000

310 CMR 40.0996(8): TABLE 6 ^{††}			
MCP Method 3: UPPER CONCENTRATION LIMITS (UCLs) IN GROUNDWATER AND SOIL			
Oil and/or Hazardous Material	CAS Number	UCLs IN GROUNDWATER ug/L (ppb)	UCLs IN SOIL ug/g (ppm)
DICHLOROMETHANE	75-09-2	100,000	8,000
DICHLOROPHENOL, 2,4-	120-83-2	100,000	9,000
DICHLOROPROPANE, 1,2-	78-87-5	100,000	10,000
DICHLOROPROPENE, 1,3-	542-75-6	2,000	10,000
DIELDRIN	60-57-1	80	40
DIETHYL PHTHALATE	84-66-2	100,000	10,000
DIMETHYL PHTHALATE	131-11-3	100,000	10,000
DIMETHYLPHENOL, 2,4-	105-67-9	100,000	10,000
DINITROPHENOL, 2,4-	51-28-5	100,000	9,000
DINITROTOLUENE, 2,4-	121-14-2	100,000	900
DIOXANE, 1,4-	123-91-1	100,000	5,000
ENDOSULFAN	115-29-7	100	5,000
ENDRIN	72-20-8	50	300
ETHYLBENZENE	100-41-4	100,000	10,000
ETHYLENE DIBROMIDE	106-93-4	100,000	500
FLUORANTHENE	206-44-0	2,000	10,000
FLUORENE	86-73-7	400	10,000
HEPTACHLOR	76-44-8	20	100
HEPTACHLOR EPOXIDE	1024-57-3	70	10
HEXACHLOROBENZENE	118-74-1	60,000	9
HEXACHLOROBUTADIENE	87-68-3	30,000	1,000
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	58-89-9	2,000	700
HEXACHLOROETHANE	67-72-1	100,000	3,000
HMX	2691-41-0	100,000	10,000
INDENO(1,2,3-cd)PYRENE	193-39-5	1,000	10,000
LEAD	7439-92-1	150	6,000
MERCURY	7439-97-6	200	400
METHOXYCHLOR	72-43-5	400	4,000
METHYL ETHYL KETONE	78-93-3	100,000	10,000
METHYL ISOBUTYL KETONE	108-10-1	100,000	10,000
METHYL MERCURY	22967-92-6	200	90
METHYL TERT BUTYL ETHER	1634-04-4	100,000	5,000
METHYLNAPHTHALENE, 2-	91-57-6	100,000	5,000
NAPHTHALENE	91-20-3	100,000	10,000
NICKEL	7440-02-0	2,000	10,000
PENTACHLOROPHENOL	87-86-5	2,000	800
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) ^{***}			
PERFLUORODECANOIC ACID (PFDA)	335-76-2	100,000	4
PERFLUOROHEPTANOIC ACID (PFHpA)	375-85-9	100,000	4
PERFLUOROHEXANESULFONIC ACID (PFHxS)	355-46-4	5,000	4
PERFLUORONONANOIC ACID (PFNA)	375-95-1	100,000	4
PERFLUOROOCTANESULFONIC ACID (PFOS)	1763-23-1	5,000	4
PERFLUOROOCTANOIC ACID (PFOA)	335-67-1	100,000	4
PERCHLORATE	-	10,000	60
PETROLEUM HYDROCARBONS			
TOTAL PETROLEUM HYDROCARBON [†]	NA	50,000	10,000
ALIPHATIC HYDROCARBONS			
C5 through C8 Aliphatic Hydrocarbons	NA	100,000	5,000
C9 through C12 Aliphatic Hydrocarbons	NA	100,000	20,000
C9 through C18 Aliphatic Hydrocarbons	NA	100,000	20,000
C19 through C36 Aliphatic Hydrocarbons	NA	100,000	20,000
AROMATIC HYDROCARBONS			
C9 through C10 Aromatic Hydrocarbons	NA	100,000	5,000

310 CMR 40.0996(8): TABLE 6 ^{††}			
MCP Method 3: UPPER CONCENTRATION LIMITS (UCLs) IN GROUNDWATER AND SOIL			
Oil and/or Hazardous Material	CAS Number	UCLs IN GROUNDWATER ug/L (ppb)	UCLs IN SOIL ug/g (ppm)
C11 through C22 Aromatic Hydrocarbons	NA	100,000	10,000
PHENANTHRENE	85-01-8	100,000	10,000
PHENOL	108-95-2	100,000	10,000
POLYCHLORINATED BIPHENYLS (PCBs)	1336-36-3	100	100
PYRENE	129-00-0	700	10,000
RDX	121-82-4	100,000	4,000
SELENIUM	7782-49-2	500	8,000
SILVER	7440-22-4	1,000	2,000
STYRENE	100-42-5	60,000	10,000
TETRACHLORODIBENZO-p-DIOXIN (TCDD), 2,3,7,8-(equivalents)	1746-01-6	4.E-01	6.E-04
TETRACHLOROETHANE, 1,1,1,2-	630-20-6	100,000	5,000
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	100,000	5,000
TETRACHLOROETHYLENE	127-18-4	100,000	8,000
THALLIUM	7440-28-0	30,000	900
TOLUENE	108-88-3	100,000	10,000
TRICHLOROBENZENE, 1,2,4-	120-82-1	100,000	10,000
TRICHLOROETHANE, 1,1,1-	71-55-6	100,000	10,000
TRICHLOROETHANE, 1,1,2-	79-00-5	100,000	5,000
TRICHLOROETHYLENE	79-01-6	50,000	700
TRICHLOROPHENOL, 2,4,5-	95-95-4	100,000	10,000
TRICHLOROPHENOL 2,4,6-	88-06-2	50,000	4,000
VANADIUM	7440-62-2	40,000	8,000
VINYL CHLORIDE	75-01-4	100,000	1,000
XYLENES (Mixed Isomers)	1330-20-7	100,000	10,000
ZINC	7440-66-6	50,000	10,000
NOTE: All concentrations of oil and/or hazardous material in soil are calculated and presented on a dry weight/dry weight basis.			
NA - Not Applicable			
* - The Total Chromium standard is applicable in the absence of species-specific data for Chromium III and Chromium VI.			
** - Cyanide expressed as Physiologically Available Cyanide (PAC). In the absence of measured Physiologically Available Cyanide, the standard is applicable to Total Cyanide.			
*** - The listed compounds and associated CAS numbers are for the acid forms of these PFAS compounds. The information presented in Table 6 are also applicable to the respective anionic forms of these compounds. These anions may form salts with any of a number of cations resulting in a variety of possible chemical species, each having a unique CAS number.			
† - The Total Petroleum Hydrocarbon (TPH) standard may be used as an alternative to the appropriate combinations of the Aliphatic and Aromatic Hydrocarbon Fraction standards. The use of the general TPH standard is a valid option only for C9 and greater petroleum hydrocarbons; it is not appropriate for the characterization of risks associated with lighter (gasoline-range) hydrocarbons.			
†† - The Department periodically reviews the scientific basis for these Standards and amends them, as appropriate, to incorporate new scientific information.			

SUBPART J: PERMANENT AND TEMPORARY SOLUTIONS

40.1000: Permanent and Temporary Solutions

310 CMR 40.1001 through 40.1099 shall be cited collectively as 310 CMR 40.1000.

40.1001: Purpose

- (1) 310 CMR 40.1000 establishes requirements and procedures for:
- (a) determining when the response actions taken at a site where there has been a release or threat of release of oil and/or hazardous material to the environment are sufficient to meet the requirements of a Permanent or Temporary Solution;

(b) implementing Activity and Use Limitations;

- (c) identifying any conditions that apply to maintaining the Permanent or Temporary Solution;
and
- (d) documenting and supporting the Permanent or Temporary Solution in a Permanent Solution Statement or Temporary Solution Statement.

40.1002: Applicability

The requirements contained in 310 CMR 40.1000 are applicable to all releases and threats of release of oil and/or hazardous material which require notification to the Department under the provisions of 310 CMR 40.0300, except as specifically provided in 310 CMR 40.0110 for a site or disposal site that is adequately regulated.

40.1003: General Provisions for Permanent and Temporary Solutions

- (1) All necessary and required response actions under 310 CMR 40.0000 shall not have been conducted at a site or disposal site unless and until a level of No Significant Risk exists or has been achieved and a Permanent Solution has been achieved in accordance with 310 CMR 40.1000.
- (2) RPs, PRPs and Other Persons conducting response actions at any site for which notification of a release or threat of release of oil and/or hazardous material is required pursuant to 310 CMR 40.0300 shall achieve a Permanent or Temporary Solution and submit a Permanent or Temporary Solution Statement to the Department in accordance with the requirements of 310 CMR 40.1000 within the deadlines established in 310 CMR 40.0500, or any other deadline established under 310 CMR 40.0000 or any determination or order issued by the Department. In such cases where a Temporary Solution is achieved, a Permanent Solution must eventually be achieved when such Permanent Solution becomes feasible.
- (3) A Permanent or Temporary Solution may be achieved, and a Permanent or Temporary Solution Statement may be submitted for an entire site, disposal site, or a portion of a disposal site.
- (4) The location of a site for which a Permanent or Temporary Solution applies shall be clearly and accurately identified in the Permanent or Temporary Solution Statement. The boundaries of a disposal site or portion of a disposal site for which a Permanent or Temporary Solution applies shall be clearly and accurately delineated and provided in documentation submitted with the Permanent or Temporary Solution Statement.
- (5) Source Elimination or Control. A Permanent or Temporary Solution shall not be achieved unless and until response actions are taken to adequately identify and address Sources of OHM Contamination at the disposal site. Such response actions shall ensure:
 - (a) for a Permanent or Temporary Solution, all unpermitted releases of OHM to the environment are eliminated;
 - (b) for a Permanent Solution, all Sources of OHM Contamination are eliminated, or if they are not eliminated, they are eliminated to the extent feasible and they are controlled;
 - (c) for a Temporary Solution, all Sources of OHM Contamination are eliminated or controlled, to the extent feasible.
- (6) Migration Control. A Permanent or Temporary Solution shall not be achieved unless and until response actions are taken to adequately assess and control the subsurface migration of OHM remaining at a disposal site. Such response actions shall ensure:
 - (a) for a Permanent Solution, plumes of dissolved OHM in groundwater and vapor-phase OHM in the Vadose Zone are stable or contracting;
 - (b) for a Temporary Solution, plumes of dissolved OHM in groundwater and vapor-phase OHM in the Vadose Zone are stable or contracting or otherwise controlled or mitigated to the extent feasible.
- (7) NAPL. A Permanent or Temporary Solution shall not be achieved at a disposal site where NAPL is or was visibly present at levels requiring notification under the provisions of 310 CMR 40.0300 unless and until response actions are taken to adequately assess the nature, extent, and mobility of the NAPL, and, where necessary, remedial actions are taken to adequately contain or remove such NAPL. Such response actions shall ensure:
 - (a) for a Permanent Solution:
 1. Non-stable NAPL is not present under current site conditions and for the foreseeable future; and
 2. all NAPL with Micro-scale Mobility is removed if and to the extent feasible based upon consideration of CSM principles;
 - (b) for a Temporary Solution, all Non-Stable NAPL and NAPL with Micro-scale Mobility is removed and/or controlled if and to the extent feasible.
- (8) The evaluation of feasibility referenced in 310 CMR 40.1003(5) through (7) shall be conducted using the criteria described in 310 CMR 40.0860.

40.1004: Performance Standards for Permanent and Temporary Solutions

- (1) A Permanent or Temporary Solution shall be supported by assessments and evaluations conducted pursuant to 310 CMR 40.0000 which:
- (a) are of sufficient scope, detail, and level of effort to characterize the risk of harm to health, safety, public welfare and the environment posed by the site or disposal site pursuant to 310 CMR 40.0900;
 - (b) are consistent with the Response Action Performance Standard described in 310 CMR 40.0191;
 - (c) are commensurate with the nature and extent of the release or threat of release and complexity of site conditions;
 - (d) demonstrate that all requirements of the applicable Permanent or Temporary Solution pursuant to 310 CMR 40.1000 have been met; and
 - (e) conform with applicable requirements and procedures for conducting response actions specified in 310 CMR 40.0000.

40.1005: Defining "Foreseeable Period of Time" for Purposes of a Permanent Solution

- (1) A Permanent Solution shall ensure a level of control of each identified substance of concern at a site or in the surrounding environment such that no such substance of concern shall present a significant risk of harm to health, safety, public welfare or the environment during any foreseeable period of time, considering existing site conditions and reasonably foreseeable future changes in site conditions, including anticipated impacts associated with climate change.
- (2) "Any foreseeable period of time" shall mean the period of time during which the conditions for achieving and maintaining a level of No Significant Risk upon which a Permanent Solution is based will remain in effect.
- (a) For Permanent Solutions with No Conditions, "any foreseeable period of time" shall be an unlimited period of time;
 - (b) For Permanent Solutions with Conditions, "any foreseeable period of time" shall be the shortest period of time, as applicable, that:
 - 1. Activity and Use Limitations, where required to maintain a Permanent Solution, remain in effect;
 - 2. Exposure Pathway Mitigation Measures, where required to maintain a Permanent Solution, remain in effect; or
 - 3. other conditions on which the Permanent Solution with Conditions is based for which an Activity and Use Limitation is not required, as specified at 310 CMR 40.1013, remain in effect.

40.1012: Application of Activity and Use Limitations

- (1) The purpose of an Activity and Use Limitation is to narrow the scope of exposure assumptions used to characterize risks to human health from a release pursuant to 310 CMR 40.0900, by specifying activities and uses that are prohibited and allowed at the disposal site in the future. 310 CMR 40.1012 establishes rules for determining when an Activity and Use Limitation must be used, when one cannot be used, and when one may be a factor to be considered in appropriately characterizing soil and groundwater at a disposal site, pursuant to 310 CMR 40.0923(3).
- (2) Except as provided in 310 CMR 40.1012(3) and 40.1013, Activity and Use Limitations shall be required:
- (a) at all disposal sites or portions of disposal sites for which a Permanent Solution and the risk characterization pursuant to 310 CMR 40.0900 used to support the Permanent Solution are based upon the restriction or limitation of Site Activities and Uses to achieve or maintain a level of No Significant Risk including:
 - 1. any disposal site or portion of a disposal site for which a Permanent Solution is based on MCP Method 1 or 2 Soil Standards and the Exposure Point Concentrations of oil and/or hazardous material exceed the S-1 standards but meet applicable S-2 or S-3 standards;
 - 2. any disposal site or portion of a disposal site where a Method 3 Risk Characterization performed pursuant to 310 CMR 40.0990 relies on reduced exposure potential due to the assumption of limited site use; and

40.1012: continued

3. any disposal site or portion of a disposal site at which the oil and/or hazardous material in soil located at a depth greater than fifteen feet from the ground surface exceeds an applicable Upper Concentration Limit in Soil listed at 310 CMR 40.0996(8) or determined at 310 CMR 40.0996(9).
 - (b) at all disposal sites for which a Permanent Solution relies upon an Exposure Pathway Mitigation Measure to prevent exposure to levels of oil and/or hazardous material that would otherwise pose a significant risk of harm to health, safety, public welfare or the environment, including:
 1. one or more Passive Exposure Pathway Mitigation Measures; or
 2. one or more Active Exposure Pathway Mitigation Measures implemented pursuant to the requirements at 310 CMR 40.1025;
 - (c) at all disposal sites where an existing private water supply well(s) is removed from service as a source of drinking water and maintained for uses other than as a private water supply in accordance with the provisions of 310 CMR 40.0932(5)(d);
 - (d) at disposal sites for which a Permanent Solution is achieved and the thickness of visible NAPL in an excavation, boring or monitoring well remaining at a disposal site is or is anticipated to be greater than ½ inch; and
 - (e) at disposal sites at Non-licensed Facilities pursuant to 310 CMR 40.0115 where a Permanent Solution is achieved and Radioactive Material emitting Radiation above background level is present.
- (3) Activity and Use Limitations shall not be required but may be used to provide notice of the existence of residual contamination to future holders of an interest(s) in property that is located within:
- (a) disposal sites or portions of disposal sites where the concentrations of oil and/or hazardous material have been reduced to background or where the requirements described in 310 CMR 40.0923(3)(b) have been met;
 - (b) disposal sites or portions of disposal sites at which residual contamination at levels at or below the applicable Upper Concentration Limits for Soil listed or determined in 310 CMR 40.0996 is located at a depth greater than 15 feet from the ground surface;
 - (c) any disposal site or portion of a disposal site for which all applicable requirements of a Permanent Solution have been met based upon one or more of the limitations, assumptions or conditions specified at 310 CMR 40.1013;
 - (d) disposal sites or portions of a disposal site for which potential risks are characterized using Method 1 (310 CMR 40.0970) if the levels of oil and/or hazardous material in soil are at or below the applicable Method 1 category S-1 soil standards listed in 310 CMR 40.0975(6);
 - (e) at disposal sites or portions of a disposal site for which potential risks are characterized using Method 2 (310 CMR 40.0980) if the levels of oil and/or hazardous material are at or below the applicable category S-1 soil standards identified in 310 CMR 40.0984 and 40.0985;
 - (f) disposal sites or portions of a disposal site for which potential risks are characterized using Method 3 (310 CMR 40.0990) if the levels of oil and/or hazardous material pose No Significant Risk pursuant to 310 CMR 40.0990, including comparison to any applicable or suitably analogous standards, and no limitations on site use were assumed or implied in the Risk Characterization;
 - (g) any disposal site or portion of a disposal site where all substantial hazards have been eliminated and where all applicable requirements for a Temporary Solution have been met pursuant to 310 CMR 40.1050;
 - (h) any disposal site or portion of a disposal site where all substantial hazards have been eliminated and where all applicable requirements for Remedy Operation Status have been met pursuant to 310 CMR 40.0893; (i) any other disposal site or portion of a disposal site where an Activity and Use Limitation is not expressly prohibited by 310 CMR 40.1012.
- (4) Activity and Use Limitations shall not be used:
- (a) to change the groundwater category of groundwater categorized as GW-1 or GW-2 pursuant to 310 CMR 40.0932; or
 - (b) to justify a conclusion that a condition of No Significant Risk exists or has been achieved at sites characterized using Method 1 or Method 2 if an identified Exposure Point Concentration exceeds an applicable Method 1 or Method 2 standard.
- (5) Activity and Use Limitations shall:
- (a) provide notice to holders of any interest(s) in a property or a portion thereof (including

without limitation, owners, lessees, tenants, mortgagees, and holders of easement rights) of the existence and location of oil and/or hazardous material at such property and the Activity and Use Limitations that have been implemented in response thereto; and

40.1012: continued

(b) establish a duty to evaluate risks associated with proposed changes in Site Activities and Uses on the subject property that could increase the risk of harm to health, safety, public welfare or the environment pursuant to the requirements of 310 CMR 40.1080, to perform additional response actions prior to any such change in Site Activities and Uses, as required by 310 CMR 40.0000, and to notify the Department of any reportable condition created by a change in Site Activity and Use.

(6) Any Activity and Use Limitations applied at a disposal site pursuant to 310 CMR 40.0000 shall be instituted and maintained in accordance with 310 CMR 40.1070 through 40.1099.

(7) A Permanent Solution that relies on the implementation of an Activity and Use Limitation is a Permanent Solution with Conditions pursuant to 310 CMR 40.1041(2).

40.1013: Limitations, Assumptions and Conditions on Site Activities and Uses That Do Not Require an AUL

(1) An Activity and Use Limitation may be used but shall not be required if the Permanent Solution is based solely upon one or more of the following limitations, assumptions or conditions on Site Activities and Uses:

- (a) the recommendation of Best Management Practices for Non-commercial Gardening in a residential setting to minimize and control potential risk pursuant to 310 CMR 40.0923(3)(c) and 310 CMR 40.0942(1)(e);
- (b) the concentrations of OHM at the disposal site are consistent with Anthropogenic Background levels;
- (c) the location of residual contamination within a public way or within a Rail Right-of-way; or
- (d) the absence of an occupied building or structure in an area in which the groundwater would otherwise be classified as GW-2 pursuant to 310 CMR 40.0932(6), and where the residual concentrations of OHM in the groundwater exceed the GW-2 standards published in 310 CMR 40.0974(2).

(2) A Permanent Solution that is based upon one or more of the limitations, assumptions or conditions on Site Activities and Uses listed at 310 CMR 40.1013(1) is a Permanent Solution with Conditions pursuant to 310 CMR 40.1041(2).

40.1020: Background Levels of Oil and Hazardous Material

(1) At any disposal site or portion of a disposal site where one or more remedial actions are undertaken to achieve a Permanent Solution, those remedial actions shall include, where feasible, one or more measures designed to reduce to the extent possible the concentrations of oil and hazardous material to levels that would exist in the absence of the disposal site of concern. Such measures shall, to the extent feasible, achieve or approach Background levels of oil and hazardous material in the environment as Background is defined in 310 CMR 40.0006.

(2) No further response actions are required at any disposal site where the concentrations of oil and hazardous material in the environment have been reduced to Background levels.

(3) The feasibility of reducing the concentrations of oil and hazardous material in the environment at a disposal site or portion of a disposal site to levels that achieve or approach Background levels shall be evaluated using the criteria described in 310 CMR 40.0860, except where it can be demonstrated that Background levels have been met.

40.1025: Requirements for Active Exposure Pathway Mitigation Measures Implemented as a Part of a Permanent Solution with Conditions

(1) Purpose and Scope. 310 CMR 40.1025 specifies requirements for an Active Exposure Pathway Mitigation Measure Implemented as part of a Permanent Solution with Conditions.

(2) Demonstration of Effectiveness. An Active Exposure Pathway Mitigation Measure implemented as part of a Permanent Solution with Conditions shall be designed and demonstrated to eliminate exposure to OHM to the extent feasible and ensure, at a minimum, that a condition of No Significant Risk is achieved and maintained for the Receptor(s) of concern. Demonstration of the effectiveness of Active Exposure Pathway Mitigation Measure shall be made prior to the

achievement of a Permanent Solution with Conditions and shall be based on the measurement of Exposure Point Concentrations representative of exposures for the Receptor(s) of concern during operation of the Active Exposure Pathway Mitigation Measure under normal operating conditions and over a period of time sufficient to account for temporal variability.

40.1025: continued

(3) Operation of an Active Exposure Pathway Mitigation Measure Implemented as part of a Permanent Solution with Conditions.

(a) The necessity of operating and maintaining the Active Exposure Pathway Mitigation Measure according to the operating regimen documented in the Permanent Solution Statement shall be specified in an Activity and Use Limitation recorded on the deed of the property where the Active Exposure Pathway Mitigation Measure is located that includes the requirements of 310 CMR 40.1025 as terms and conditions for maintaining a Permanent Solution;

(b) The operating regimen for the Active Exposure Pathway Mitigation Measure documented in the Permanent Solution Statement shall be designed to ensure a level of No Significant Risk is maintained for the Receptor(s) of concern under normal operating conditions;

(c) The operating regimen shall document the parameters for operating the Active Exposure Pathway Mitigation Measure and the methods and frequency for monitoring such Measure to ensure that it is operating consistently within such parameters as specified at 40.1025(3)(d) and (e), as applicable;

(d) The operating regimen for an Active Exposure Pathway Mitigation Measure installed to prevent the migration of subsurface OHM vapors into a building shall:

1. establish the acceptable vacuum range to maintain an appropriate negative pressure field beneath a building for each point of soil gas extraction;
2. continuously monitor the vacuum level at each point of soil gas extraction;

3. employ remote monitoring technology that will alert the owner and operator of the building protected by the Active Exposure Pathway Mitigation Measure and the Department immediately when the vacuum level is outside the acceptable range and when the vacuum level returns within the acceptable range;

a. in such cases, the remote monitoring device must be registered with the Department as specified in 310 CMR 40.1025(3)(d)3.b. prior to the achievement of a Permanent Solution that relies upon the operation of an Active Exposure Pathway Mitigation Measure to eliminate or mitigate the migration of subsurface OHM vapors into a building;

b. a complete registration requires:

- i. submission of an initial registration to the Department on a form provided by the Department for such purpose;
- ii. demonstration that the remote monitoring device is capable of transmitting alerts when the vacuum level is outside of the acceptable range and when the vacuum level returns to the acceptable range via email to the Department in the format specified by the Department that contains, at a minimum, the RTN, device number, event description, date of the event and time of the event; and
- iii. receipt of confirmation from the Department that the registration is complete.

(e) The operating regimen of an Active Exposure Pathway Mitigation Measure implemented as part of a Permanent Solution with Conditions that is installed to remove OHM from drinking water supplied by a private water supply well shall:

1. provide a schedule for the Active Exposure Pathway Mitigation Measure that specifies the frequency and activities for inspecting and maintaining and replacing or recharging media employed for OHM removal. Such frequency shall be based on a conservative estimate of the system's performance (i.e., estimated breakthrough time) and demonstrated to be adequate by confirmatory testing;
2. establish proper disposal procedures for any spent media generated as a result of operation of the Active Exposure Pathway Mitigation Measure; and
3. require the maintenance of records documenting all activities to maintain the system, including replacing, recharging, removing or disposing of spent media, and the results of confirmatory testing of drinking water samples.

(f) The operating regimen shall document the longest duration of a shutdown that would be consistent with:

1. a level of exposure that does not pose an Imminent Hazard; and
2. a level of exposure that poses No Significant Risk; and

(g) Following submittal of a Permanent Solution Statement, the Active Exposure Pathway Mitigation Measure shall be consistently operated and maintained at a level of effectiveness that ensures a level of No Significant Risk is maintained for the Receptor(s) of concern and in accordance with the provisions of 310 CMR 40.1025.

(h) The submittal of Remedial Monitoring Reports and Status Reports are not required for the operation of an Active Exposure Pathway Mitigation Measure implemented as part of a

Permanent Solution after the Permanent Solution Statement has been submitted to the Department.

(4) Upon written approval by the Department, a remote monitoring system which continuously transmits key operational data of the Active Exposure Pathway Mitigation Measure installed to eliminate or mitigate the migration of OHM vapors into a building to a website hosted by the Department would satisfy the requirement of 310 CMR 40.1025(3)(d) and (9).

(5) An Active Exposure Pathway Mitigation Measure shall not be used to support a Permanent Solution with Conditions if suspension or failure of such measure lasting 60 consecutive days would result in a Receptor exposure to OHM that would pose an Imminent Hazard.

(6) An Active Exposure Pathway Mitigation Measure shall not be used to support a Permanent Solution with Conditions unless the owner of the property where the Active Exposure Pathway Mitigation Measure is located certifies at the time that the Permanent Solution with Conditions is implemented that financial resources have been made available for the immediate repair and/or replacement of components of the Active Exposure Pathway Mitigation Measure in the event that the Measure experiences failure.

(7) In the event of any suspension or failure of an Active Exposure Pathway Mitigation Measure implemented as part of a Permanent Solution with Conditions, the owner of the property where the Active Exposure Pathway Mitigation Measure is located shall undertake immediate steps to return the Active Exposure Pathway Mitigation Measure to full operating condition. If such suspension or failure of the system lasts 30 or more consecutive days, the owner of the property where such Measure is located shall notify both the Department and any non-transient occupants of the building protected by such Measure who may have experienced exposure to oil and/or hazardous material as the result of the system suspension or failure on the 30th day from the start of the suspension or failure period. This notice shall document the reason for the suspension or failure of the Active Exposure Pathway Mitigation Measure, any efforts made or steps to be taken to resume operation of such Measure, and the expected timeframe for resuming operation of such Measure.

(8) The owner of the property where an Active Exposure Pathway Mitigation Measure is implemented as part of a Permanent Solution with Conditions shall annually certify in response to receipt of a form provided by the Department that:

- (a) the property owner is aware of his or her obligation to operate and maintain the Active Exposure Pathway Mitigation Measure, including repairing or replacing components of the Measure to resume operation in the event the Measure experiences suspension or failure;
- (b) the property owner is aware of his or her obligation to notify both the Department and any non-transient occupants of the building protected by the Active Exposure Pathway Mitigation Measure if suspension or failure of the system lasts 30 or more consecutive days;

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- (c) the property owner is aware that the Department may upon reasonable notice inspect the Active Exposure Pathway Mitigation Measure to ensure that it is operating pursuant to the regimen established at 310 CMR 40.1025;
- (d) financial resources are available to the property owner for the immediate repair and/or replacement of components of the Active Exposure Pathway Mitigation Measure in the event that the Measure experiences failure; and
- (e) the Active Exposure Pathway Mitigation Measure is operating pursuant to the regimen established at 310 CMR 40.1025.

(9) The owner of the property where an Active Exposure Pathway Mitigation Measure is implemented as part of a Permanent Solution with Conditions installed to prevent the migration of subsurface vapors into a building shall conduct a shutdown and restart test to demonstrate remote monitoring technology is operational in response to a written request by the Department unless written approval by the Department has been provided pursuant to 310 CMR 40.1025(4).

(10) Where a Permanent Solution with Conditions is based upon the operation of an Active Exposure Pathway Mitigation Measure, the operation of such a measure may be terminated following documentation provided in a revised Permanent Solution Statement pursuant to 310 CMR 40.1000 that the measure is no longer necessary to maintain a Permanent Solution. Such documentation shall include a Risk Characterization conducted pursuant to 310 CMR 40.0900 that evaluates and documents exposure to OHM for Receptor(s) of concern in the absence of the Active Exposure Pathway Mitigation Measure over a period of time sufficient to account for temporal variability and supports a conclusion that a condition of No Significant Risk exists in the absence of such Measure.

40.1026: Requirements for Active Exposure Pathway Mitigation Measures Implemented as Part of a Temporary Solution or Remedy Operation Status

- (1) Purpose and Scope. 310 CMR 40.1026 specifies requirements for an Active Exposure Pathway Mitigation Measure implemented as part of a Temporary Solution or Remedy Operation Status.
- (2) Demonstration of Effectiveness. An Active Exposure Pathway Mitigation Measure implemented as part of a Temporary Solution or Remedy Operation Status shall be designed and demonstrated to eliminate exposure to OHM to the extent feasible and ensure, at a minimum, that a condition of No Significant Risk is achieved and maintained for the Receptor(s) of concern. Demonstration of the effectiveness of Active Exposure Pathway Mitigation Measure shall be based on the measurement of Exposure Point Concentrations representative of exposures for the Receptor(s) of concern during operation of the Active Exposure Pathway Mitigation Measure under normal operating conditions and over a period of time sufficient to account for temporal variability.
- (3) Operation of an Active Exposure Pathway Mitigation Measure implemented as part of a Temporary Solution or Remedy Operation Status.
 - (a) The operating regimen for the Active Exposure Pathway Mitigation Measure implemented as part of a Temporary Solution or Remedy Operation Status shall be specified in Temporary Solution Statement or Phase IV Operation, Maintenance and Monitoring Plan developed as part of the Remedy Implementation Plan, respectively;
 - (b) The operating regimen for the Active Exposure Pathway Mitigation Measure shall be designed to ensure a level of No Significant Risk is maintained for the Receptor(s) of concern under normal operating conditions;
 - (c) The operating regimen shall document the parameters for operating the Active Exposure Pathway Mitigation Measure and the methods and frequency for monitoring such Measure to ensure that it is operating consistently within such parameters;
 - (d) The operating regimen for an Active Exposure Pathway Mitigation Measure installed to eliminate or mitigate the migration of subsurface OHM vapors into a building shall:
 - 1. establish the acceptable vacuum range to maintain an appropriate negative pressure field beneath a building for each point of soil gas extraction;
 - 2. continuously monitor the vacuum level at each point of soil gas extraction;
 - 3. employ remote monitoring technology that will alert the owner and operator of the building protected by the Active Exposure Pathway Mitigation Measure and the Department immediately when the vacuum level is outside the acceptable range and when the vacuum

level returns within the acceptable range;

- a. in such cases, the remote monitoring device must be completely registered with the Department as specified in 310 CMR 40.1026(3)(d)3.b. prior to the achievement of a Temporary Solution or Remedy Operation Status that relies upon the operation of an Active Exposure Pathway Mitigation Measure to prevent the migration of subsurface OHM vapors into a building;
- b. A complete registration requires:
 - i. submission of an initial registration to the Department on a form provided by the Department for such purpose;
 - ii. demonstration that the remote monitoring device is capable of transmitting alerts when the vacuum level is outside of the acceptable range and when the vacuum level returns to normal via email to the Department in the format specified by the Department and contains, at a minimum, the RTN, device number, event description, date of the event and time of the event; and
 - iii. receipt of confirmation from the Department that the registration is complete.

(e) The operating regimen of an Active Exposure Pathway Mitigation Measure implemented as part of a Temporary Solution or Remedy Operation Status that is installed to remove OHM from drinking water supplied by a private water supply well shall:

1. provide a schedule for the Active Exposure Pathway Mitigation Measure that specifies the frequency and activities for inspecting and maintaining and replacing or recharging media employed for OHM removal. Such frequency shall be based on a conservative estimate of the system's performance (i.e., estimated breakthrough time) and demonstrated to be adequate by confirmatory testing;
2. establish proper disposal procedures for any spent media generated as a result of operation of the Active Exposure Pathway Mitigation Measure; and
3. require the maintenance of records documenting all activities to maintain the system, including replacing, recharging, removing or disposing of spent media, and the results of confirmatory testing of drinking water samples.

(f) The operating regimen shall document the longest duration of a shutdown that would be consistent with:

1. a level of exposure that does not pose an Imminent Hazard; and
2. a level of exposure that poses No Significant Risk; and

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(g) Following submittal of a Temporary Solution Statement or Remedy Operation Status, the Active Exposure Pathway Mitigation Measure shall be consistently operated and maintained at a level of effectiveness that ensures a level of No Significant Risk is maintained for the Receptors of concern and in accordance with the provisions of 310 CMR 40.1026.

(4) Upon written approval by the Department, a remote monitoring system which continuously transmits key operational data of the Active Exposure Pathway Mitigation Measure installed to eliminate or mitigate the migration of OHM vapors into a building to a website hosted by the Department would satisfy the requirement of 310 CMR 40.1025(3)(d).

(5) In the event of any suspension or failure of an Active Exposure Pathway Mitigation Measure implemented as part of a Temporary Solution or Remedy Operation Status, the owner of the property where the Active Exposure Pathway Mitigation Measure is located shall undertake immediate steps to return the Active Exposure Pathway Mitigation Measure to full operating condition. If such suspension or failure of the system lasts 30 or more consecutive days, the owner of the property where such Measure is located shall notify both the Department and any non-transient occupants of the building protected by such Measure who may have experienced exposure to oil and/or hazardous material as the result of the system suspension or failure on the 30th day from the start of the suspension or failure period. This notice shall document the reason for the suspension or failure of the Active Exposure Pathway Mitigation Measure, any efforts made or steps to be taken to resume operation of such Measure, and the expected timeframe for resuming operation of such Measure.

(6) Notwithstanding 310 CMR 40.0893(6)(c), any person who intends to discontinue an Active Exposure Pathway Mitigation Measure implemented as part of a Temporary Solution or Remedy Operation Status in order to assess whether the remedial goals have been achieved and conditions remain stable over time may maintain such Temporary Solution or Remedy Operation Status provided that he or she:

1. notifies the Department of the system shutdown for the purpose of such evaluation and the plans for monitoring site conditions in the next required Status Report following system shut down;
2. continues to submit Status Reports at the frequency required in 310 CMR 40.0898 or 310 CMR 40.0892, respectively;
3. notifies the Department if operation of the Active Exposure Pathway Mitigation Measure is resumed in the next required Status Report following resumed operation; and
4. notifies the appropriate persons in accordance with 310 CMR 40.1026(4), if the shutdown lasts 30 or more consecutive days.

(7) An Active Exposure Pathway Mitigation Measure implemented as part of a Temporary Solution or Remedy Operation Status shall require Remedial Monitoring Report to be submitted in accordance with 310 CMR 40.0027.

40.1030: Categories of Permanent and Temporary Solutions

(1) Permanent or Temporary Solutions are categorized under 310 CMR 40.1030 through 40.1050 as Permanent Solutions with No Conditions, Permanent Solutions with Conditions and Temporary Solutions.

(2) The specific category of Permanent or Temporary Solution applicable to a site, disposal site or portion of a disposal site shall be established based upon the following factors:

- (a) whether the site or disposal site poses No Significant Risk;
- (b) whether all Substantial Hazards posed by the disposal site have been eliminated;
- (c) whether the risk characterization depends upon assumed limitations on current or future conditions, activities or uses, including the implementation of Active or Passive Exposure Pathway Mitigation Measures;
- (d) whether one or more Activity and Use Limitations are required under the provisions of 310 CMR 40.1012 to maintain a level of No Significant Risk;
- (e) whether concentrations of oil and/or hazardous material at a site exceed Upper Concentration Limits in Soil and Groundwater listed at 310 CMR 40.0996(8); and
- (f) whether site conditions are consistent with Natural Background or Anthropogenic Background.

40.1040: Permanent Solutions

- (1) Permanent Solutions shall apply where:
 - (a) a level of No Significant Risk, as specified in 310 CMR 40.0900, exists or has been achieved;
 - (b) all Sources of OHM Contamination have been eliminated or controlled, as specified in 310 CMR 40.1003(5)(a) and (b);
 - (c) control of plumes of dissolved OHM in groundwater and vapor-phase OHM in the Vadose Zone has been achieved as specified in 310 CMR 40.1003(6)(a);
 - (d) NAPL, if present, has been addressed as specified in 310 CMR 40.1003(7)(a);
 - (e) all threats of release have been eliminated; and
 - (f) the level of oil and/or hazardous material concentrations in the environment have been reduced to as close to Background levels as feasible as specified at 310 CMR 40.1020.
- (2) Permanent Solutions shall not apply to:
 - (a) except as provided at 310 CMR 40.1025 where an Active Exposure Pathway Mitigation Measure is implemented as part of a Permanent Solution with Conditions, any disposal site or portion of a disposal site where Active Operation and Maintenance of a remedial action is required; or

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- (b) any disposal site or portion of a disposal site where groundwater or soil concentrations of oil and/or hazardous material exceed Upper Concentration Limits specified in 310 CMR 40.0996, except in those cases where the concentrations are shown to be consistent with Background, or the soil is located at a depth greater than 15 feet from the ground surface or beneath an engineered barrier, and it is not feasible pursuant to the criteria listed at 310 CMR 40.0860 to reduce such soil concentrations to less than or equal to the applicable Upper Concentration Limits in Soil listed in 310 CMR 40.0996(8);
- (c) any disposal site or portion of a disposal site where groundwater concentrations exceed an applicable or suitably analogous standard listed in 310 CMR 40.0993(3) where the groundwater is categorized as GW-1 pursuant to 310 CMR 40.0932; or
- (d) any disposal site or portion of a disposal site where Hazardous Waste or Remediation Waste requires management or disposal pursuant to 310 CMR 40.0030.

(3) Permanent Solutions may be achieved at any point in the response action process where the requirements of a Permanent Solution have been achieved and documented.

40.1041: Categories of Permanent Solutions

There are two categories of Permanent Solution: Permanent Solution with No Conditions and Permanent Solution with Conditions.

(1) Permanent Solution with No Conditions shall apply to:

- (a) disposal sites or portions of a disposal site where the requirements of 310 CMR 40.1040(1) have been achieved;
- (b) disposal sites or portions of a disposal site where oil and/or hazardous material concentrations do not exceed an applicable Upper Concentration Limit in Soil or Groundwater listed at 310 CMR 40.0996(8), unless such levels are consistent with Natural Background;
- (c) disposal sites or portions of a disposal site where a level of No Significant Risk exists and will be maintained for all current and foreseeable future use of the site without relying upon:
 - 1. assumed limitations on current or future site activities, uses or conditions, that require an Activity and Use Limitation, as specified in 310 CMR 40.1012(2); or
 - 2. assumed limitations on current or future site activities, uses or conditions, that do not require an Activity and Use Limitations pursuant to 310 CMR 40.1013; and
- (d) sites where response actions have eliminated all threats of release and no release of oil and/or hazardous material to the environment has occurred.

(2) Permanent Solution with Conditions shall apply to disposal sites or portions of a disposal site where:

- (a) the requirements of 310 CMR 40.1040(1) have been achieved;
- (b) oil or hazardous material concentrations do not exceed an applicable Upper Concentration Limit in soil or groundwater listed at 310 CMR 40.0996(8), unless such levels are consistent with Anthropogenic Background or oil and/or hazardous material in soil is located at a depth greater than 15 feet from the ground surface or beneath an Engineered Barrier and an evaluation conducted pursuant to 310 CMR 40.0860 indicates that it is not feasible to reduce the concentrations of oil and/or hazardous material in soil located at a depth greater than 15 feet from the ground surface or in the area beneath the Engineered Barrier to less than or equal to the applicable Upper Concentration Limits in soil; and
- (c) a level of No Significant Risk exists and will be maintained for all current and foreseeable future use of the site, relying on one or more of the following:
 - 1. assumed limitations on future site activities or uses that require Activity and Use Limitations, as specified in 310 CMR 40.1012; or
 - 2. assumed limitations on current or future site activities, uses or conditions that do not require an Activity and Use Limitations pursuant to 310 CMR 40.1013.

40.1050: Temporary Solutions

(1) Temporary Solutions shall apply to disposal sites or portions of a disposal site where:

- (a) a condition of No Substantial Hazard exists and has been documented pursuant to 310 CMR 40.0956;

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- (b) all Sources of OHM Contamination have been identified, characterized, and to the extent feasible, eliminated or controlled as specified in 310 CMR 40.1003(5)(a) and (c);
 - (c) control of plumes of dissolved OHM in groundwater and vapor-phase OHM in the Vadose Zone has been achieved to the extent feasible as specified in 310 CMR 40.1003(6)(b);
 - (d) NAPL, if present, has been addressed as specified in 310 CMR 40.1003(7)(b); and
 - (e) it is concluded, after completion of a Phase III evaluation pursuant to 310 CMR 40.0850, that:
 - 1. response actions to achieve a Permanent Solution are not currently feasible; or
 - 2. response actions to achieve a Permanent Solution are feasible and shall be continued toward a Permanent Solution.
- (2) Temporary Solutions may be achieved regardless of whether one or more remedial actions have been taken at a disposal site, but only after:
- (a) a Phase II Comprehensive Site Assessment and a Phase III Identification, Evaluation and Selection of Comprehensive Remedial Alternatives, as specified in 310 CMR 40.0830 and 310 CMR 40.0850, respectively, have been completed; or
 - (b) a Downgradient Property Status Submittal has been provided to the Department in accordance with 310 CMR 40.0180.
- (3) A Temporary Solution may be reached:
- (a) after completion of a Phase III evaluation pursuant to 310 CMR 40.0850;
 - (b) after implementation of a Phase IV Comprehensive Remedial Alternative pursuant to 310 CMR 40.0870; or
 - (c) after implementation of Phase V operation, maintenance and/or monitoring pursuant to 310 CMR 40.0890.
- (4) For all Temporary Solutions where achievement of a Permanent Solution is not currently feasible as described at 310 CMR 40.1050(1)(e)1., except those achieved after a Downgradient Property Status Submittal has been provided to the Department in accordance with 310 CMR 40.0180:
- (a) a copy of the plan as specified in 310 CMR 40.0861(2)(h) that presents definitive and enterprising steps to be taken toward achieving a Permanent Solution at the disposal site or portion of a disposal site shall be submitted with the Temporary Solution Statement and as part of any Periodic Review of the Temporary Solution as specified at 310 CMR 40.1050(4)(b); and
 - (b) a Periodic Review of the Temporary Solution shall be conducted every fifth year after the date of filing the Temporary Solution Statement, until such time that a Permanent Solution Statement is submitted. Such Periodic Review Opinion shall address the following:
 - 1. the effectiveness of the Temporary Solution(s), including confirmation that a condition of No Substantial Hazard has been maintained;
 - 2. the scope and effectiveness of any remedial actions taken since the submittal of the Temporary Solution Statement or the most recent Periodic Review of a Temporary Solution, if applicable,
 - 3. the definitive and/or enterprising steps pursuant to 310 CMR 40.0861(2)(h) taken since the submittal of the Temporary Solution Statement or the most recent Periodic Review of a Temporary Solution, if applicable, and planned for future to identify, develop and implement a feasible Permanent Solution at the site;
 - 4. the feasibility of implementing one or more Permanent Solutions for the disposal site or portion(s) of the pursuant to 310 CMR 40.0860 at the time of the Periodic Review, and if a Permanent Solution is feasible, the projected schedule;
 - 5. any changes in activities, uses and/or exposures that may cause an actual or potential increase in exposure for human or environmental receptors to oil and/or hazardous material;
 - 6. if applicable, an evaluation of any Activity and Use Limitation implemented as part of the Temporary Solution, including compliance with the terms of the Activity and Use Limitation, its effectiveness in maintaining a condition of No Substantial Hazard, and identification of any response actions necessary to maintain a condition of No Substantial Hazard;
 - 7. any necessary and required response actions to maintain the Temporary Solution, including a description of the type and frequency of monitoring to be conducted and any contingencies for ensuring the effectiveness of the Temporary Solution during the period prior to the next Periodic Review; and
 - 8. the certification required in 310 CMR 40.0009.

(c) a valid Tier Classification or Extension thereof shall be in effect at the time the Temporary Solution Statement is submitted to the Department and until the time a Permanent Solution Statement is submitted to the Department. Further response actions shall be conducted in accordance with 310 CMR 40.0800.

(5) For all Temporary Solutions where achievement of a Permanent Solution is feasible and response actions toward a Permanent Solution are continuing as described in 310 CMR 40.1050(1)(e)2.:

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- (a) a copy of the plan as specified in 310 CMR 40.0861(2)(h) that presents definitive and enterprising steps to be taken toward achieving a Permanent Solution at the disposal site or portion of a disposal site shall be submitted with the Temporary Solution Statement; and
- (b) a valid Tier Classification or Extension thereof shall be in effect at the time the Temporary Solution Statement is submitted to the Department and until the time a Permanent Solution Statement is submitted to the Department. Further response actions shall be conducted in accordance with 310 CMR 40.0800.

40.1055: Transition Provisions

- (1) As of June 20, 2014, all Class A-1, A-2 and B-1 Response Action Outcomes submitted to the Department prior to June 20, 2014 shall be Permanent Solutions with No Conditions.
- (2) As of June 20, 2014, all Class A-3, A-4, B-2 and B-3 Response Action Outcomes submitted to the Department prior to June 20, 2014 shall be Permanent Solutions with Conditions.
- (3) As of June 20, 2014, all Class C-1 Response Action Outcomes submitted to the Department prior to June 20, 2014 shall be Temporary Solutions as described in 310 CMR 40.1050(1)(e)1.
- (4) As of June 20, 2014, all Class C-2 Response Action Outcomes submitted to the Department prior to June 20, 2014 shall be Temporary Solution as described in 310 CMR 40.1050(1)(e)2.

40.1056: Content of Permanent Solution Statements

- (1) A Permanent Solution Statement shall be submitted by a RP, PRP or Other Person, on a form established by the Department for such purposes, and shall include, at a minimum, the following:
 - (a) the site or disposal site name, address and DEP Release Tracking Number(s);
 - (b) whether it is a Permanent Solution with No Conditions or a Permanent Solution with Conditions;
 - (c) except where the concentrations of oil and/or hazardous material are consistent with or have been reduced to Background or where a threat of release has been abated, the Method(s) (Methods 1, 2 or 3) used to characterize the risk of harm posed by the disposal site to health, safety, public welfare and the environment, pursuant to 310 CMR 40.0900;
 - (d) the relationship of the Permanent Solution Statement to any other Permanent or Temporary Solution Statements that have been filed for the disposal site, if applicable, together with a statement as to whether any additional response actions are needed for any other portions of the disposal site;
 - (e) indication as to whether the Permanent Solution includes the implementation of an Activity and Use Limitation, and if so, the type of Activity and Use Limitation implemented at the disposal site;
 - (f) indication as to whether the Permanent Solution is based upon assumptions about the current or future site activities, uses or conditions that do not require an Activity and Use Limitation pursuant to 310 CMR 40.1013 and a description of those assumptions;
 - (g) indication as to whether the Permanent Solution is based upon the effective operation of one or more Active Exposure Pathway Mitigation Measures pursuant to 310 CMR 40.1025;
 - (h) except where specifically exempted by the Department based upon the Department's level of involvement in the oversight of response actions at the site or disposal site, an Opinion from a Licensed Site Professional as to whether the requirements of the applicable category of Permanent Solution specified in 310 CMR 40.1000 have been met;
 - (i) a certification of the Permanent Solution Statement and all documents submitted with the Permanent Solution Statement as required by 310 CMR 40.0009;
 - (j) indication as to whether oil and/or hazardous material exceed one or more applicable Upper Concentration Limits in Soil or Groundwater, as described at 310 CMR 40.0996;
 - (k) indication as to whether the analytical data used to support the Permanent Solution was generated pursuant to the Department's Compendium of Analytical Methods; and
 - (l) confirmation that no Hazardous Waste or Remediation Waste requiring management or disposal remains at the site, disposal site or portion of a disposal site for which the Permanent Solution Statement applies.
- (2) Except as provided in 310 CMR 40.1056(4), all documentation, plans and/or reports necessary to support the Permanent Solution shall be submitted to the Department with the Permanent Solution Statement, including, without limitation, the following:

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- (a) as specified in 310 CMR 40.1003(4), a clear and accurate description of the location of the site, in the case of a threat of release, or the location and boundaries of the disposal site or portion of disposal site to which the Permanent Solution applies that includes the location of areas characterized as Background relative to the disposal site boundaries. Such description shall reference, to the extent practicable, the location of the site, or location and boundaries of the disposal site or portion thereof relative to permanent or semi-permanent landmarks, location coordinates, and/or surveyed boundaries;
- (b) a succinct summary of the Conceptual Site Model;
- (c) a demonstration that all Sources of OHM Contamination have been eliminated or controlled as specified in 310 CMR 40.1003(5)(a) and (b);
- (d) a demonstration that response actions have been taken to adequately assess and, if necessary, control the subsurface migration of OHM remaining at the disposal site as specified in 310 CMR 40.1003(6)(a);
- (e) where NAPL is or has been present, a demonstration that response actions have been taken to adequately assess and if necessary control NAPL mobility and meet the requirements of 310 CMR 40.1003(7)(a);
- (f) information supporting the conclusion that a level of No Significant Risk has been achieved or exists;
- (g) information documenting the extent to which levels of oil and/or hazardous material in the environment have been reduced to Background, and/or the results of the feasibility evaluation conducted pursuant to 310 CMR 40.0860 demonstrating that the achievement of Background is not feasible;
- (h) a copy of any and all Activity and Use Limitations which have been implemented under 310 CMR 40.1070;
- (i) for Permanent Solutions with Conditions where concentrations in Soil exceed Upper Concentration Limits in Soil at a depth greater than 15 feet from the ground surface or in an area beneath an Engineered Barrier, the results of the evaluation conducted pursuant to 310 CMR 40.0860 demonstrating that the achievement of Upper Concentration Limits in Soil located at a depth greater than 15 feet from the ground surface or in the area beneath an Engineered Barrier is not feasible;
- (j) for a Permanent Solution with Conditions based upon assumptions about the current or future site activities, uses or conditions that do not require an Activity and Use Limitation pursuant to 310 CMR 40.1013, documentation related to such assumptions and conditions, including, as applicable:
 - 1. the recommendation and description of Best Management Practices for Non-commercial Gardening in a residential setting to minimize and control potential risk pursuant to 310 CMR 40.0923(3)(c)) and 310 CMR 40.0942(1)(e);
 - 2. the location of OHM that are consistent with Anthropogenic Background levels;
 - 3. the location of residual contamination within a public way or within a Rail Right-of-way; or
 - 4. where the residual concentrations of OHM in the groundwater exceed the GW-2 standards published in 310 CMR 40.0974(2) at a disposal site or portion thereof where no occupied building or structure is present, information related to the presence of groundwater contamination and the obligation to ensure any future construction at the disposal site does not result in OHM impacts to indoor air in newly constructed buildings or structures;
- (k) a Data Usability Assessment documenting that the data relied upon is scientifically valid and defensible, and of a sufficient level of precision, accuracy, and completeness to support the Permanent Solution, and a Data Representativeness Evaluation, documenting the adequacy of the spatial and temporal data sets to support the Permanent Solution; and
- (l) a description of any operation, maintenance, and/or monitoring that will be required to confirm and/or maintain those conditions at the disposal site upon which the Permanent Solution is based, including where the Permanent Solution is based upon the effective operation of one or more Active Exposure Pathway Mitigation Measure, the operating regimen for such Measure pursuant to 310 CMR 40.1025(3).

(3) The Permanent Solution shall not be considered complete until all applicable fees are paid in accordance with 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.

(4) Documentation, plans and/or reports that support the Permanent Solution, and which have been previously submitted, need not be resubmitted with the Permanent Solution Statement provided that:

1. a summary of the original documentation, plans and/or report sufficient to support the Permanent Solution is included in the Permanent Solution Statement;
2. the RP, PRP or Other Person submitting the Permanent Solution Statement confirms the availability of the original documentation, plans and/or reports in the Department's public records; and
3. The Permanent Solution Statement adequately cites the documentation, plans and/or reports, including Uniform Resource Locator (URL) when available.

40.1057: Content of Temporary Solution Statements

- (1) A Temporary Solution Statement shall be submitted by a RP, PRP or Other Person on a form established by the Department for such purposes, and shall include, at a minimum, the following:
- (a) the site or disposal site name, address and DEP Release Tracking Number(s);
 - (b) the Method(s) (Methods 1, 2 or 3) used to characterize the risk of harm posed by the disposal site to health, public welfare and the environment, pursuant to 310 CMR 40.0900;
 - (c) the relationship of the Temporary Solution Statement to any other Permanent or Temporary Solution Statements that have been filed for the disposal site, if applicable, together with a statement as to whether any additional response actions are needed for any other portions of the disposal site;
 - (d) indication as to whether achievement of a Permanent Solution is feasible at the disposal site or portion of the disposal site and whether response actions toward a Permanent Solution are continuing;
 - (e) indication as to whether the Temporary Solution includes the implementation of an Activity and Use Limitation, and if so, the type of Activity and Use Limitation implemented at the disposal site;
 - (f) indication as to whether the Temporary Solution includes the operation of one or more Active Exposure Pathway Mitigation Measures pursuant to 310 CMR 40.1026;
 - (g) except where specifically exempted by the Department based upon the Department's level of involvement in the oversight of response actions at the site or disposal site, an Opinion from a Licensed Site Professional as to whether the requirements of the Temporary Solution specified in 310 CMR 40.1000 have been met;
 - (h) a certification of the Temporary Solution Statement and all documents submitted with the Temporary Solution Statement as required by 310 CMR 40.0009;
 - (i) indication as to whether oil and/or hazardous material exceed one or more applicable Upper Concentration Limits in Soil or Groundwater, as described at 310 CMR 40.0996; and
 - (j) indication as to whether the analytical data used to support the Temporary Solution was generated pursuant to the Department's Compendium of Analytical Methods.
- (2) Except as provided at 310 CMR 40.1057(3), all documentation, plans and/or reports necessary to support the Temporary Solution shall be submitted to the Department with the Temporary Solution Statement, including, without limitation, the following:
- (a) as specified in 310 CMR 40.1003(4), a clear and accurate description of the location of the site or the location and boundaries of the disposal site or portion of disposal site to which the Temporary Solution applies that includes the location of areas characterized as Background relative to the disposal site boundaries. Such description shall reference, to the extent practicable, the location of the site, and location and boundaries of the disposal site or portion thereof relative to permanent or semi-permanent landmarks, location coordinates, and/or surveyed boundaries;
 - (b) a succinct summary of the Conceptual Site Model;
 - (c) a demonstration that all Sources of OHM Contamination have been eliminated or controlled, to the extent feasible as specified in 310 CMR 40.1003(5)(a) and (c);
 - (d) a demonstration that response actions have been taken to adequately assess and control the subsurface migration of OHM remaining at the disposal site as specified in 310 CMR 40.1003(6)(b);
 - (e) where NAPL is or has been present, a demonstration that response actions have been taken to adequately assess NAPL mobility and meet the requirements of 310 CMR 40.1003(7)(b);
 - (f) a copy of the plan as specified in 310 CMR 40.0861(2)(h);
 - (g) information supporting the conclusion that no substantial hazards remain at the disposal site;
 - (h) a copy of any and all Activity and Use Limitations which have been implemented under 310 CMR 40.1070;
 - (i) a description of any operation, maintenance, and/or monitoring that will be required to confirm and/or maintain those conditions at the disposal site upon which the Temporary Solution is based, including where the Temporary Solution is based upon the effective operation of one or more Active Exposure Pathway Mitigation Measure, the operating regimen for the such Measure pursuant to 310 CMR 40.1026(3);
 - (j) a copy of the plan, as specified in 310 CMR 40.0861(2)(h), which presents definitive and enterprising steps to be taken toward achieving a Permanent Solution at the disposal site; and

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(k) a Data Usability Assessment documenting that the data relied upon is scientifically valid and defensible, and of a sufficient level of precision, accuracy, and completeness to support the Temporary Solution, and a Data Representativeness Evaluation, documenting the adequacy of the spatial and temporal data sets to support the Temporary Solution.

(3) The Temporary Solution Statement may be supported by reference to documents previously submitted to the Department provided that

1. a summary of the original documentation, plans and/or report sufficient to support the Temporary Solution is included in the Temporary Solution Statement;
2. the RP, PRP or Other Person submitting the Temporary Solution Statement confirms the availability of the original documentation, plans and/or reports in the Department's public records; and
3. The Temporary Solution Statement adequately cites the documentation, plans and/or reports, including Uniform Resource Locator (URL) when available.

40.1066: Effect of Permanent or Temporary Solutions on Fees

- (1) Upon receipt of a Permanent Solution Statement, the Department shall suspend the further assessment of Annual Compliance Assurance Fees; provided, however, that payment of such fees shall be required for the billable year in which the Permanent Solution is provided to the Department.
- (2) Upon receipt of a Temporary Solution Statement filed in accordance with 310 CMR 40.1000, the Department shall suspend the further assessment of Tier I or Tier II Annual Compliance Assurance Fees, whichever are applicable, and shall assess a Temporary Solution Annual Compliance Assurance Fee pursuant to 310 CMR 4.03: *Annual Compliance Assurance Fee*.

40.1067: Remedial Actions After a Permanent Solution Statement has been Submitted to the Department

- (1) 310 CMR 40.1067 applies to remedial actions conducted at a disposal site after a Permanent Solution Statement has been submitted to the Department.
- (2) Nothing in 310 CMR 40.1067 shall affect any person's duty to notify the Department of a release(s) or threat of release(s) in accordance with M.G.L. c. 21E and 310 CMR 40.0000 or limit the Department's authority to establish site-specific requirements for response actions, including response actions to address a violation(s) or deficiency(ies).
- (3) For remedial actions conducted after the submittal of a Permanent Solution with No Conditions the following requirements shall apply:
 - (a) a Tier Classification or Extension thereof is not required;
 - (b) unless otherwise specified by the Department, no documentation, including a revised Permanent Solution Statement, is required to be maintained by the person conducting response actions or submitted to the Department, but may be maintained or submitted voluntarily;
 - (c) all excavated Remediation Waste is managed in accordance with the provisions of 310 CMR 40.0030;
 - (d) Remedial Wastewater is managed in accordance with the provisions of 310 CMR 40.0040; and
 - (e) unless otherwise specified by the Department, public involvement activities pursuant to 310 CMR 40.1400 are not required.
- (4) For remedial actions conducted within an area subject to an Activity and Use Limitation after the submittal of a Permanent Solution with Conditions to the Department, the following requirements shall apply:
 - (a) Limited soil excavation may be undertaken without the need to notify the Department and public involvement activities pursuant to 310 CMR 40.1400 are not required, provided:
 1. such soil excavation is not prohibited by the Activity and Use Limitation;
 2. except as provided in 310 CMR 40.1067(4)(b), such soil excavation does not result in the excavation of more than 100 cubic yards of Remediation Waste contaminated solely by oil or waste oil, or 20 cubic yards of Remediation Waste contaminated by hazardous material or mixture of oil or waste oil and hazardous material; and
 3. all excavated Remediation Waste is managed in accordance with the provisions of 310 CMR 40.0030;
 - (b) Remedial actions that either exceed the scope of the limited soil excavation activities outlined in 310 CMR 40.1067(4)(a), including the management of Contaminated Groundwater, or are being conducted to allow a change in Site Activities and Uses pursuant to 310 CMR 40.1080, shall be conducted as Release Abatement Measures, provided such remedial actions do not exceed the scope of a Release Abatement Measure as described in 310 CMR 40.0442. Such remedial actions shall not require a Tier Classification or Extension thereof, provided:

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1. such remedial actions are conducted in accordance with the requirements set forth in 310 CMR 40.0440, including requirements at 40.0442 that limit the scope of Release Abatement Measures, all requirements for submittal of Plans, Status Reports, and Completion Statements;
 2. notice to local officials is provided as specified in 310 CMR 40.1403(3); and
 3. if such remedial actions are being conducted to allow a change in Site Use and/or Activities, the requirements in 310 CMR 40.1080 are met;
- (c) Remedial actions that exceed the scope of a Release Abatement Measure as described in 310 CMR 40.0442 shall be conducted as a Phase IV Comprehensive Remedial Action, as specified at 310 CMR 40.0870, provided:
1. such remedial actions are conducted under a valid Tier Classification or Extension thereof;
 2. public involvement applicable to Phase IV Comprehensive Remedial Action is conducted; and
 3. if such remedial actions are being conducted to allow a change in Site Use and Activities, the requirements in 310 CMR 40.1080 are met;
- (d) A revised Permanent Solution Statement shall be submitted upon completion of remedial actions when the terms and conditions of an Activity and Use Limitation are changed through an amendment, termination, or partial termination in accordance with 310 CMR 40.1080 and 40.1081. A revised Permanent Solution Statement, whenever submitted, may be limited to the area in which the response actions were conducted;
- (5) For remedial actions conducted after a Permanent Solution with Conditions Statement has been submitted to the Department where an Activity and Use Limitation is not required pursuant to 310 CMR 40.1013, the following requirements shall apply:
- (a) Limited soil excavation may be undertaken without the need to notify the Department or conduct public involvement activities pursuant to 310 CMR 40.1400, provided:
1. except as provided in 310 CMR 40.1067(5)(b), such soil excavation does not result in the excavation of more than 100 cubic yards of Remediation Waste contaminated solely by oil or waste oil, or 20 cubic yards of Remediation Waste contaminated by hazardous material or mixture of oil or waste oil and hazardous material; and
 2. all excavated Remediation Waste is managed in accordance with the provisions of 310 CMR 40.0030;
- (b) Remedial actions that exceed the scope of the limited soil excavation activities outlined in 310 CMR 40.1067(5)(a), including the management of Contaminated Groundwater, shall be conducted as Release Abatement Measures and shall not require a Tier Classification or Extension thereof, provided:
1. such remedial actions are conducted in accordance with the requirements set forth in 310 CMR 40.0440, including requirements at 40.0442 that limit the scope of Release Abatement Measures; and
 2. notice to local officials is provided as specified in 310 CMR 40.1403(3);
- (c) Remedial actions that exceed the scope of a Release Abatement Measure as described in 310 CMR 40.0442 shall be conducted as a Phase IV Comprehensive Remedial Action, as specified at 310 CMR 40.0870, provided:
1. such remedial actions are conducted under a valid Tier Classification or Extension thereof; and
 2. public involvement applicable to Phase IV Comprehensive Remedial Action is conducted;
- (d) A revised Permanent Solution Statement shall be submitted upon completion of remedial actions where such remedial actions result in the elimination of one or more of the conditions associated with the Permanent Solution with Conditions specified in 310 CMR 40.1013. A revised Permanent Solution Statement, whenever submitted, may be limited to the area in which the response actions were conducted;
- (e) Notwithstanding the provisions of 310 CMR 40.1067(5), where a Permanent Solution with Conditions Statement has been submitted based upon assumptions pursuant to 310 CMR 40.1013(1)(d), future construction of a building that results in exposure to OHM from the disposal site in indoor air in the new building shall be subject to notification requirements of 310 CMR 40.0300 and, if necessary, the performance of response actions to ensure that the requirements of a Permanent Solution are met for the change in conditions and exposure that resulted from the building construction.

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(6) At disposal sites where an Engineered Barrier has been implemented as part of a Permanent Solution with Conditions, remedial actions conducted after a Permanent Solution with Conditions Statement has been submitted to the Department

(a) that are in or affect the area where an Engineered Barrier is located:

1. shall be conducted under a valid Tier Classification, or Extension thereof;
2. shall be conducted as a Phase IV Comprehensive Remedial Action, as specified at 310 CMR 40.0870; and
3. shall include public involvement applicable to Phase IV Comprehensive Remedial Actions;

(b) where such remedial actions are outside of and do not affect the integrity of the Engineered Barrier or the area where an Engineered Barrier is located, shall be conducted pursuant to 310 CMR 40.1067(4).

(7) The Department may specify in a Notice of Audit Findings that remedial actions are necessary at a disposal site after a Permanent Solution Statement has been submitted to the Department pursuant to 310 CMR 40.1067. Notwithstanding the provisions of 310 CMR 40.1067 to the contrary, all remedial actions conducted in response to a Notice of Audit Findings pursuant to 310 CMR 40.1067 shall be documented in the Post-Audit Completion Statement as described at 310 CMR 40.1170.

(8) Notwithstanding 310 CMR 40.1067, remedial actions initiated as a URAM that include an area for which a Permanent Solution with Conditions has been submitted to the Department and are consistent with the scope of activities under 310 CMR 40.1067(4)(b) or 310 CMR 40.1067(5)(b), may proceed as a URAM, provided such remedial actions are conducted in compliance with the requirements of 310 CMR 40.1067(4) or (5), as applicable. No rights to undertake actions beyond those rights otherwise possessed by persons undertaking such actions are created by this provision.

40.1070: Implementation of Activity and Use Limitations

(1) One or more of the following Activity and Use Limitations shall be implemented at each disposal site or portion of a disposal site where the Activity and Use Limitation is necessary and appropriate to meet the requirements of 310 CMR 40.1012 or 310 CMR 40.0111(8):

- (a) a Grant of Environmental Restriction, implemented in accordance with 310 CMR 40.1071;
- (b) an Environmental Restriction implemented by the Department, in accordance with 310 CMR 40.1073; or
- (c) a Notice of Activity and Use Limitation, implemented in accordance with 310 CMR 40.1074.

(2) Activity and Use Limitations imposed pursuant to 310 CMR 40.1012 shall be implemented and adhered to by the owner and holders of interest(s) in the property and/or a license to use the property subject to the Activity and Use Limitation, and/or the RP, PRP or Other Person conducting response actions at the disposal site or portion of a disposal site in accordance with the procedures established in 310 CMR 40.1070 through 310 CMR 40.1099.

(3) An Activity and Use Limitation shall be deemed implemented and shall be in effect upon its being duly recorded and/or registered with the appropriate registry of deeds and/or land registration office.

(4) Notice of Activity and Use Limitations implemented at adequately regulated disposal sites subject to CERCLA shall be subject to those provisions of 310 CMR 40.0000 identified in 310 CMR 40.0111(8) as being applicable to such Notice of Activity and Use Limitations, including all such identified provisions contained in 310 CMR 40.1074.

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40.1071: Grants of Environmental Restrictions for Disposal Sites Where a RP, PRP or Other Person Conducts Response Actions

(1) General Requirements At any disposal site or portion of a disposal site where a RP, PRP or Other Person is conducting a response action(s) for which a Grant of Environmental Restriction has been selected as a form of Activity and Use Limitation pursuant to 310 CMR 40.1070, the following requirements shall be met:

- (a) the Grant of Environmental Restriction shall be prepared using Form 1072A set forth in 310 CMR 40.1099;
- (b) an Activity and Use Limitation Opinion from a Licensed Site Professional shall be submitted on a form prescribed by the Department with each Grant of Environmental Restriction as an exhibit of the Restriction and shall specify:
 - 1. why the Grant of Environmental Restriction is appropriate to:
 - a. achieve and/or maintain a level of No Significant Risk for a Permanent Solution; or
 - b. achieve a condition of No Substantial Hazard for a Temporary Solution;
 - 2. Site Activities and Uses to be prohibited and/or restricted;
 - 3. Site Activities and Uses to be permitted; and
 - 4. obligations and conditions necessary to meet the objectives of the Grant of Environmental Restriction;
- (c) the Grant of Environmental Restriction shall be submitted to the Department for the Commissioner's signature with the applicable fee pursuant to 310 CMR 4.00; and
- (d) the Grant of Environmental Restriction, signed by the Commissioner, shall be recorded and/or registered as specified in 310 CMR 40.1071(3). Acceptance of any such Restriction shall not be construed or deemed to imply Department approval of the adequacy of any response actions performed at the disposal site.

(2) Contents of a Grant of Environmental Restriction A Grant of Environmental Restriction shall contain the following information:

- (a) a description of the property and disposal site, including:
 - 1. the location of the property and its street address;
 - 2. a metes and bounds description of the parcel(s) of land which contain(s) the area that is subject to the Grant of Environmental Restriction;
 - 3. a reference to a survey plan of such parcel(s) of land, prepared by a Massachusetts Registered Land Surveyor, that has been recorded as a plan with the appropriate registry of deeds and/or to a Land Court Plan;
 - 4. if the area subject to the Grant of Environmental Restriction (*i.e.* "the Restricted Area") comprises only a portion of the property described in 310 CMR 40.1071(2)(a)2, a metes and bounds description of the Restricted Area; and:
 - a. (for registered land only) an 8½" x 11" survey plan, prepared by a Massachusetts Registered Land Surveyor, which shows the metes and bounds of the Restricted Area, attached as an exhibit to the Grant of Environmental Restriction; or
 - b. (for unregistered land only) a reference to a survey plan of the Restricted Area, prepared by a Massachusetts Registered Land Surveyor, that has been recorded as a plan with the appropriate registry of deeds;
 - 5. an 8½" x 11" sketch plan showing the location of the Restricted Area in relation to the boundaries of the disposal site to the extent that the boundaries of the disposal site have been established.
- (b) name(s) of the property owner(s);

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- (c) if a person(s) signing the Grant of Environmental Restriction is not an individual signing on his or her own behalf, but rather on behalf of an entity (LLC, LLP, limited partnership, *etc.*), or as trustee, executor, or attorney in fact, documentation consistent with conveyancing standards and practices verifying that the person(s) signing the Grant of Environmental Restriction has the authority to sign such document shall be submitted as an exhibit to the Grant of Environmental Restriction verifying that the person(s) signing the grant is authorized to do so. If the property owner is a corporation, such documentation shall consist of:
1. a Clerk's Certificate of Incumbency from the clerk of the corporation certifying that the person(s) signing the Grant of Environmental Restriction on behalf of the corporation held his or her position as of the date of the Grant of Environmental Restriction; and
 2. unless the corporate person(s) signing the Grant of Environmental Restriction holds the position of both president or vice president and treasurer or assistant treasurer, a Clerk's Certificate from the clerk or secretary of the corporation certifying a corporate vote, resolution, or by-law authorizing the person(s) to do so;
- (d) the disposal site name and DEP Release Tracking Number(s);
- (e) a statement that the Grant of Environmental Restriction is a gift to the Department pursuant to M.G.L. c. 21E, § 6;
- (f) a statement that the Grant of Environmental Restriction shall be binding upon the property owner and any parties claiming by, through, or under said owner, and shall inure to the benefit of all parties claiming by, through or under the Department;
- (g) an Activity and Use Limitation Opinion that meets the requirements of 310 CMR 40.1071(1)(b);
- (h) a statement that the Grant of Environmental Restriction shall run in perpetuity or for a specified number of years, and that the Environmental Restriction conforms to M.G.L. c. 184, § 26;
- (i) a precise description of the Site Activities and Uses which in accordance with the Activity and Use Limitation Opinion are restricted on the property such as:
1. construction or placement of buildings, utilities, roadways, parking lots or other structures;
 2. excavating, dredging or otherwise removing sediments, soils, loam, peat, sand, gravel, rock or other mineral substance;
 3. planting, removal or destruction of trees, shrubs, or other vegetation;
 4. using a private well to supply groundwater for human consumption; or
 5. other Site Activities and Uses which would likely result in significant risk or a substantial hazard from exposures to oil and/or hazardous material if the Site Activity and Use were to take place on the property;
- (j) a precise description of the obligations and conditions which, in accordance with the Activity and Use Limitation Opinion, are necessary to meet the objectives of the Grant of Environmental Restriction. Such obligations may include the continued proper operation of remedial actions, specific procedures governing excavation activities to protect workers and disposal site neighbors, and the erection and maintenance of fences to prohibit access of unauthorized persons to the disposal site;
- (k) a precise description of Site Activities and Uses, which, in accordance with the Activity and Use Limitation Opinion, may be permitted on the subject property, including without limitation specific provisions for purposes of maintenance, alteration, or repair of utilities, or specific types of land uses;
- (l) except where the property to be restricted is not part of a disposal site, procedures to be followed when an emergency requires immediate excavation of contaminated soil to repair utility lines or other infrastructure on the disposal site, or to respond to other types of emergencies (*e.g.*, fire or floods) that may result in a significant risk of harm from exposure to oil and/or hazardous material at the disposal site, including:
1. notifying the Department within two hours of obtaining knowledge of such emergency condition;
 2. limiting disturbance of contaminated media to the minimum reasonably necessary to adequately respond to the emergency; and

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3. undertaking specified precautions to minimize exposure of workers and neighbors of the disposal site to contaminated media (*e.g.*, the need for specific types of protective clothing for workers conducting the excavation, and procedures for minimizing the liberation of contaminated dust); and
 4. engaging the services of an LSP to prepare or supervise preparation and implementation of a written plan for restoring the site to a condition consistent with the Grant of Environmental Restriction, and to review and evaluate response actions to ensure minimal disturbance of contaminated media. A copy of such plan shall be submitted to the Department within ten days of its execution, with an Opinion that establishes whether the property subject to the Grant of Environmental Restriction has been restored to a condition consistent with the Grant of Environmental Restriction.
- (m) easements for the term of the Grant of Environmental Restriction to the Department, its agents, contractors, subcontractors, and employees for purposes of providing access to the subject property to inspect the area subject to the Grant of Environmental Restriction to ensure compliance with its terms, and to conduct response actions consistent with M.G.L. c. 21E and 310 CMR 40.0000;
 - (n) a provision that the Grant of Environmental Restriction shall run with the land;
 - (o) an agreement to incorporate either in full or by reference the Grant of Environmental Restriction into all future deeds, easements, mortgages, leases, licenses, occupancy agreements, or any other instruments conveying an interest in and/or a right to use the property;
 - (p) the procedures for amending and releasing the Grant of Environmental Restriction as described in 310 CMR 40.1080 and 40.1083;
 - (q) title reference by which the property owner(s) acquired title to the property; and
 - (r) the notarized signature(s) of the property owner(s), the notarized signature and seal of the LSP who signed the Activity and Use Limitation Opinion, and the signature of the Commissioner.
- (3) Recording/Registering Grants of Environmental Restriction. The Grant of Environmental Restriction shall be recorded and/or registered in accordance with the following:
- (a) the Grant of Environmental Restriction shall be duly recorded and/or registered by the property owner in the appropriate Registry of Deeds and/or Land Registration Office within 30 days of the property owner's receipt from the Department of the Grant of Environmental Restriction as approved; and
 - (b) within 30 days of recording and/or registering any Grant of Environmental Restriction, the property owner shall submit to the Department:
 1. a certified Registry copy of the Grant of Environmental Restriction bearing the book and page/instrument number and/or document number; and
 2. a Registry copy of the required survey plan(s) referenced in the Grant of Environmental Restriction, bearing the plan book/plan number(s);
- (4) Subordination Agreement The property owner shall obtain and record one or more Subordination Agreements, using Form 1072B set forth in 310 CMR 40.1099, to ensure that the respective interests in the property are subordinated to the Grant of Environmental Restriction. Any Subordination Agreement(s) shall be recorded and/or registered in the appropriate Registry of Deeds and/or Land Registration Office immediately after the recording and/or registration of the Grant of Environmental Restriction. Subordination Agreements shall be obtained from:
- (a) any and all holders of a prior interest in the Restricted Area, and
 - (b) from any and all holders of a prior interest in the Property insofar as such interest affects those interests created under the Grant of Environmental Restriction.

40.1072: Process for Applying for a Grant of Environmental Restriction

- (1) The Department shall review each application for a Grant of Environmental Restriction to ensure that it conforms to all requirements established herein for such instrument.
- (2) An application for a Grant of Environmental Restriction shall consist of:
 - (a) a completed Form 1072A and, if applicable, Form 1072B, set forth in 310 CMR 40.1099;

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- (b) all other applicable documents set forth in 310 CMR 40.1071; and
- (c) a certification of title issued to the Department by an insured title examiner certifying title in the Grantor, and including all encumbrances of record.

(3) An application for a Grant of Environmental Restriction shall not be deemed complete if the Department determines that a Grant of Environmental Restriction application:

- (a) fails to contain all required information listed in 310 CMR 40.1071;
- (b) fails to include the applicable fee established by 310 CMR 4.10(10)(g)4.; or
- (c) is incorrectly filled out.

(4) The Department has no obligation to accept or review an incomplete Grant of Environmental Restriction application.

(5) Processing a Grant of Environmental Restriction Application. For purposes of 310 CMR 4.10(10)(g), the computation of time periods shall commence on the day following the day a Grant of Environmental Restriction application is received at the appropriate Department office or on the day following the day the Grant of Environmental Restriction application fee is received, whichever occurs later.

(a) The applicant and the Department may, by written agreement, extend any schedule for timely action or individual portion thereof for a Grant of Environmental Restriction application pursuant to 310 CMR 4.00: *Timely Action Schedule and Fee Provisions* and 40.1072.

(b) Administrative Completeness Review. The Department shall conduct an Administrative Completeness Review of a Grant of Environmental Restriction Application in accordance with 310 CMR 4.00: *Timely Action Schedule and Fee Provisions* and 310 CMR 40.1072. The Administrative Completeness Review shall determine whether all required elements of the application have been submitted by the applicant.

1. Initial Administrative Completeness Review (AC-1). The initial AC-1 review shall comply with the following requirements:

- a. The AC-1 Review shall result in a written determination of administrative completeness or a statement of administrative deficiencies.
- b. A determination of administrative completeness shall mean that the permit application may proceed to Technical Review.
- c. A statement of administrative deficiencies shall end the AC-1 review period.
- d. The Department shall send a determination of administrative completeness or a statement of administrative deficiencies to the applicant in writing within 24 days of the date a Grant of Environmental Restriction application is received at the appropriate Department office or on the day following the day the Grant of Environmental Restriction application fee is received, whichever occurs later. If the application is not complete, the Department shall identify the information necessary to complete the application in the statement of administrative deficiencies.

2. Second Administrative Completeness Review (AC-2). If the Department issues a statement of administrative deficiencies, a second Administrative Completeness Review, AC-2, shall be conducted upon submittal of additional information by the applicant. Such AC-2 review shall be conducted in accordance with the following requirements:

- a. If the Department issues a statement of administrative deficiencies, the Department shall have an additional 24 days for a second Administrative Completeness Review, AC-2, beginning the day after receipt of material submitted by the applicant in response to the statement of administrative deficiencies issued in AC-1
- b. The Department may request additional information during the course of AC-2 review.
- c. The AC-2 review shall result in a determination of administrative completeness or a denial of the permit application.
- d. A denial of the permit application shall be subject to appeal in accordance with 310 CMR 40.0050, provided that in any adjudicatory hearing the issues shall be limited to the question of whether or not the application submitted was administratively complete. If the applicant prevails in such proceeding, the Department shall begin the next step of its review pursuant to the schedule for timely action.

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3. Effect of Determination. A determination of administrative completeness shall not constitute any finding with respect to the technical suitability, adequacy or accuracy of the materials submitted, and shall be no bar to a request to amend, revise, replace, or supplement such materials based on technical suitability, adequacy or accuracy.
- (c) Technical Review of Grant of Environmental Restriction Applications. The Department shall conduct a Technical Review of each Grant of Environmental Restriction application to ensure that it conforms to the requirements established herein for such instruments. This review shall ensure that:
 1. the instrument provides adequate and appropriate identification of property subject to the Grant of Environmental Restriction;
 2. the person granting the Grant of Environmental Restriction is the owner of record;
 3. all prior interests in the Restricted Area have been subordinated; and
 4. the activities to be restricted, permitted, performed, and conditioned are clearly specified.
- (d) Procedures for Initial Technical Review (T-1).
 1. An Initial Technical Review shall result in a decision to approve the Grant of Environmental Restriction, or in a statement of technical deficiencies in the application and supporting materials. The Department's decision to issue a statement of deficiencies shall not be deemed to give rise to any right to an adjudicatory hearing.
 2. An initial T-1 review shall be conducted in accordance with the following requirements:
 - a. The Department may request additional information during the course of T-1 review.
 - b. A statement of technical deficiencies shall end the T-1 review period.
 - c. An applicant shall respond within 30 days of the date of issuance of a statement of technical deficiencies by submitting any additional material to support the application and address deficiencies.
 3. If the applicant fails to respond to a statement of technical deficiencies, the application shall be reviewed on the record.
 4. As established in 310 CMR 4.10(10)(g), and except as agreed pursuant to 310 CMR 40.1072(5)(a), the Department shall have 48 days to complete its T-1 review from the date of the Department's determination of administrative completeness.
- (e) Supplemental Technical Review (T-2).
 1. The purpose of a supplemental technical review (T-2) is to allow the Department to review technical information submitted by the applicant in response to a statement of technical deficiencies issued in T-1.
 2. A T-2 review shall result in a decision to approve or disapprove a Grant of Environmental Restriction.
 3. Except as agreed pursuant to 310 CMR 40.1072(5)(a), the Department shall have an additional 36 days for a T-2 review from the day after the receipt of material submitted by the applicant in response to a statement of technical deficiency.
 4. The Department may request more information at any time during the T-2 review.
- (6) Approvals of Grants of Environmental Restrictions.
 - (a) For each application for a Grant of Environmental Restriction, the Department shall prepare a statement specifying that the application is approvable, or, as appropriate, a statement describing the basis for disapproving the application.
 - (b) The Department's review shall be limited to determining whether the proposed Grant of Environmental Restriction meets the requirements of 310 CMR 40.1071.
 - (c) The Department's review shall not encompass issues concerning the adequacy of response actions at the subject disposal site (including whether the release and any associated risks have been adequately characterized, and whether the Activity and Use Limitation Opinion provides an adequate basis for a finding that a level of No Significant Risk exists or has been achieved) or that substantial hazards have been eliminated.
 - (d) The Department may disapprove an application for a Grant of Environmental Restriction if it determines that:
 1. the application does not provide adequate and appropriate identification of the property to be subject to the Grant of Environmental Restriction;

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2. the person granting the Grant of Environmental Restriction is not the owner of record;
3. all prior interests in the Restricted Area have not been subordinated;
4. the activities to be restricted, permitted, performed, and conditioned are not clearly specified; or
5. the application is not completed by an applicable deadline, or contains information which the applicant reasonably knew or should have known was false or misleading.

40.1073: Environmental Restrictions for Disposal Sites Where the Department Conducts Response Actions

- (1) The Department may impose Environmental Restrictions upon any disposal site for which the Department conducts a response action. Any Environmental Restriction imposed by the Department shall be recorded and/or registered in the appropriate Registry of Deeds and/or Land Registration Office.
- (2) The Department may impose and record and/or register an Environmental Restriction if the property owner fails to record or register an Environmental Restriction in accordance with 310 CMR 40.1071, and may seek to recover the Costs thereof.
- (3) In the event that the Department establishes an administrative record pursuant to 310 CMR 40.1300 for a response action that consists, in whole or in part, of the imposition of an Environmental Restriction by the Department, the Department shall include the Environmental Restriction in the administrative record.
- (4) In the event that the Department does not establish an administrative record pursuant to 310 CMR 40.1300 for a response action that consists, in whole or in part, of the imposition of an Environmental Restriction by the Department, the Department shall provide to the following persons notice of such intent to impose an Environmental Restriction:
 - (a) any owner of the property whose name and address is known to the Department;
 - (b) any other person having a recorded or registered ownership interest in the property whose name and/or address is known to the Department;
 - (c) any person having an unrecorded or unregistered ownership interest in the property whose interest, name and address is known to the Department; and
 - (d) any person having an unrecorded or unregistered ownership interest in the property whose interest, name, and address is unknown to the Department.
- (5) The notice required by 310 CMR 40.1073(4) shall include all of the following:
 - (a) a statement of the Department's statutory and regulatory authority to record, register or file the Environmental Restriction;
 - (b) a concise statement of the alleged factual and legal basis for the Environmental Restriction;
 - (c) a statement that a person having an ownership interest in the property has a right to an adjudicatory hearing on such Environmental Restriction; and
 - (d) a statement of the requirements that must be complied with by a person having an ownership interest in the property in order to avoid being deemed to have waived his or her right to an adjudicatory hearing.
- (6) Each notice required by 310 CMR 40.1073(4)(a) shall be served by one or more of the following methods:
 - (a) service in hand at the person's last known address or at the last known address of any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service;
 - (b) service in hand personally to the person, or to any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service;
 - (c) by certified mail, return receipt requested, addressed to the person's last known address, or to the last known address of any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service; or
 - (d) with respect to any person having an unrecorded or unregistered ownership interest in the property whose interest, name, or address is unknown to the Department, by publication in a newspaper of general circulation serving the community where the property is located.

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(7) Subject to the provisions of 310 CMR 40.1073(8), in the event that the Department does not establish an administrative record pursuant to 310 CMR 40.1300, the following person's shall have the right to an adjudicatory hearing whenever the Department seeks to record and/or register an Environmental Restriction:

- (a) any owner of the property;
- (b) any other person having a recorded or registered ownership interest in the property; and
- (c) any person having an unrecorded or unregistered ownership interest in the property.

(8) Any person who has a right to an adjudicatory hearing pursuant to 310 CMR 40.1073(7) shall be deemed to have waived the right to an adjudicatory hearing unless the Department receives from such person a written statement that denies that the Department has a basis to record and/or register the Environmental Restriction, and does so subject to and in compliance with applicable provisions of 310 CMR 1.00: *Adjudicatory Proceedings*, within 21 days of the following:

- (a) with respect to the notice required by 310 CMR 40.1073(4)(a), (b) or (c), the date of issuance of the notice in accordance with 310 CMR 40.1073(6)(a), (b) or (c); or
- (b) with respect to the notice required by 310 CMR 40.1073(4)(d), the date of publication of the notice in accordance with 310 CMR 40.1073(6)(d).

(9) The Department shall not be required to prove any facts alleged by the Department in the notice required by 310 CMR 40.1073(4) unless such facts are expressly denied in the statement filed pursuant to 310 CMR 40.1073(8).

40.1074: Notice of Activity and Use Limitation

(1) General Requirements. At any disposal site or portion of a disposal site where a RP, PRP or Other Person is conducting a response action(s) for which a Notice of Activity and Use Limitation has been selected as a form of Activity and Use Limitation pursuant to 310 CMR 40.1070, the following requirements shall be met:

- (a) a Notice of Activity and Use Limitation shall include all of the information specified in 310 CMR 40.1074(2) and be fully documented using Form 1075 set forth in 310 CMR 40.1099;
- (b) the Activities and Uses, and obligations and conditions specified in a Notice of Activity and Use Limitation to maintain a level of No Significant Risk or No Substantial Hazard, shall be established in accordance with 310 CMR 40.0900 and 40.1012;
- (c) a Notice of Activity and Use Limitation shall be recorded and/or registered as specified in 310 CMR 40.1074(3);
- (d) Prior to the recording and/or registration of a Notice of Activity and Use Limitation pursuant to 310 CMR 40.1074(3), current holders of any record interest(s) in the area subject to the proposed Notice (including without limitation, owners, lessees, tenants, mortgagees, and holders of easements or licenses) shall be notified by certified mail, return receipt requested, of the existence and location of oil and/or hazardous material within such area and the terms of such proposed Notice. Such proposed Notice of Activity and Use Limitation shall not be recorded and/or registered until at least 30 days after such notification of current record interest holders has occurred, unless all parties receiving such notification provide a written waiver of the 30-day waiting period to the property owner;
- (e) the person(s) signing the Notice of Activity and Use Limitation shall submit a statement, on a form prescribed by the Department, certifying that:
 - 1. the person(s) or entity identified as the property owner(s) on the Notice owned the property at the time the Notice was recorded and/or registered pursuant to 310 CMR 40.1074(3); and
 - 2. record interest-holders were notified of the proposed Notice pursuant to 310 CMR 40.1074(1)(d);

(2) Contents of a Notice of Activity and Use Limitation. A Notice of Activity and Use Limitation shall be documented on Form 1075 or, in the case of CERCLA sites, on a form developed and approved by the Department, and shall contain the following information:

- (a) the location of the property, including:
 - 1. the property's street address;

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2. a metes and bounds description of the parcel(s) of land which contain(s) the area that is subject to the Notice of Activity and Use Limitation;
 3. a reference to a survey plan of the parcel(s) of land which contain(s) the area that is subject to the Notice of Activity and Use Limitation, prepared by a Massachusetts Registered Land Surveyor, that has been recorded as a plan with the appropriate registry of deeds and/or a Land Court Plan;
 4. if the area subject to the Notice of Activity and Use Limitation comprises only a portion of the property described in 310 CMR 40.1074(2)(a)2., a metes and bounds description of the portion subject to the Notice of Activity and Use Limitation; and
 - a. (for registered land only) an 8½" x 11" survey plan, prepared by a Massachusetts Registered Land Surveyor, which shows the metes and bounds of the portion subject to the Notice of Activity and Use Limitation, attached as an exhibit to the Notice of Activity and Use Limitation; or
 - b. (for unregistered land only) a reference to a survey plan of the portion subject to the Notice of Activity and Use Limitation, prepared by a Massachusetts Registered Land Surveyor, that has been recorded as a plan with the appropriate registry of deeds; and
 5. an 8½" x 11" sketch plan, attached as an exhibit to the Notice of Activity and Use Limitation, showing the location of the portion subject to the Notice of Activity and Use Limitation in relation to the boundaries of the disposal site to the extent that the boundaries of the disposal site have been established and the location and depiction of relevant features any Engineered Barriers, permanent caps, Active Exposure Pathway Mitigation Measures or other systems that are subject to the Obligations and Conditions of the Notice of Activity and Use Limitation;
- (b) name(s) of the property owner(s);
- (c) if a person(s) signing the Notice of Activity and Use Limitation is not an individual signing on his/her own behalf, but rather on behalf of an entity (LLC, LLP, limited partnership, *etc.*), or as trustee, executor, or attorney in fact, documentation consistent with conveyancing standards and practices verifying that the person(s) signing the Notice of Activity and Use Limitation has the authority to sign such document shall be attached as an exhibit to the Notice of Activity and Use Limitation. If the property owner is a corporation, such documentation shall consist of:
1. a Clerk's Certificate of Incumbency from the clerk of the corporation certifying that the person(s) signing the Notice of Activity and Use Limitation on behalf of the corporation held his or her position as of the date of the Notice of Activity and Use Limitation; or
 2. unless the person(s) signing the Notice of Activity and Use Limitation holds the position of both president or vice president and treasurer or assistant treasurer, a Clerk's Certificate from the clerk or secretary of the corporation certifying a corporate vote, resolution, or by-law authorizing the person(s) to do so;
- (d) the disposal site name and DEP Release Tracking Number(s);
- (e) a statement that specifies why the Notice of Activity and Use Limitation is appropriate to maintain a Permanent Solution and condition of No Significant Risk or maintain a Temporary Solution and condition of No Substantial Hazard;
- (f) a concise summary of the oil and/or hazardous material release event(s) or site history (*i.e.*, date of the release(s), to the extent known, release volumes(s), and response actions taken to address the release(s)) that resulted in the contaminated media subject to the Notice of Activity and Use Limitation;
- (g) a description of the contaminated media (*i.e.*, media type(s), contaminant type(s), approximate vertical and horizontal extent) subject to the Notice of Activity and Use Limitation;
- (h) a description of the Site Activities and Uses that are consistent with maintaining a Permanent Solution and condition of No Significant Risk or maintaining a Temporary Solution and condition of No Substantial Hazard with respect to exposures to oil and/or hazardous material, including but not limited to emergency excavation and repair of existing subsurface utilities, specific provisions for non-emergency excavation, and specific types of land uses and activities;
- (i) a description of the Site Activities and Uses that are inconsistent with maintaining a Permanent Solution and condition of No Significant Risk or maintaining a Temporary Solution and condition of No Substantial Hazard with respect to exposures to oil and/or hazardous material;

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- (j) a description of the obligations and/or conditions that are necessary to meet the objectives of the Notice of Activity and Use Limitation, including, but not limited to the type and frequency of activities for the inspection and maintenance of, as applicable, barriers, Engineered Barriers, and Exposure Pathway Mitigation Measures, and, pursuant to 310 CMR 40.1025, the type and frequency of activities for the inspection, operation, maintenance of an Active Exposure Pathway Mitigation Measure and the requirements for remote monitoring and notification;
- (k) an agreement to reference this Notice in all future deeds, easements, mortgages, leases, licenses, occupancy agreements, or any other instruments which convey an interest in and/or a right to use the property subject to the Notice of Activity and Use Limitation;
- (l) reference to procedures to be followed to ensure that changes in the inconsistent and/or consistent activities and/or uses meet the objectives of the Notice of Activity and Use Limitation; and
- (m) the notarized signature(s) of the property owner(s), and the notarized signature and seal of the LSP of Record who certifies that in [his][her] Opinion the Notice of Activity and Use Limitation is consistent with a Permanent Solution or a Temporary Solution.

(3) Recording/Registering Notices. The property owner shall record and/or register any Notice of Activity and Use Limitation in the appropriate Registry of Deeds and/or Land Registration Office.

(4) Filing with the Department. Within 30 days of recording and/or registering any Notice of Activity and Use Limitation, the property owner shall submit the following to the Department:

- (a) a Registry copy of the Notice bearing the book and page/instrument number and/or document number; and
- (b) a Registry copy of the required survey plan(s) referenced in the Notice, bearing the plan book/plan number(s).

(5) Incorporation into Instruments of Transfer. Upon transfer of any interest in and/or a right to use the property or a portion thereof that is subject to a Notice of Activity and Use Limitation, the Notice of Activity and Use Limitation shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer. Within 30 days of recording or registering a deed conveying record title for a property which is subject in whole or in part to a Notice of Activity and Use Limitation, a copy of such deed containing said reference shall be submitted to the Department. This obligation shall attach both to the grantor and the grantee on such deed, provided that submission of such copy to the Department by either the grantor or the grantee shall satisfy this obligation for both of them.

40.1075: Form of Notice of Activity and Use Limitation

Any person who intends to limit the Site Activities and Uses of property through a Notice of Activity and Use Limitation shall complete Form 1075 set forth in 310 CMR 40.1099 in accordance with 310 CMR 40.1074, or, in the case of CERCLA sites, a form developed and approved by the Department.

40.1080: Changes in Site Activities and/or Uses or Other Site Conditions After an Activity and Use Limitation Has Been Filed

(1) Evaluation of Contemplated Site Activity and/or Use Changes. Where a Permanent or Temporary Solution is based upon certain restrictions, limitations and/or conditions on Site Activities and/or Uses, any contemplated Site Activity and/or Use that is not specifically permitted by an Activity and Use Limitation and that may invalidate the condition of No Significant Risk or No Substantial Hazard, whichever is applicable were it to occur, shall be evaluated by an LSP before such Site Activity and/or Use is implemented. Such evaluation shall be submitted to the Department using a transmittal form provided for such purpose and shall include:

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- (a) an LSP Opinion on a form prescribed by the Department as to whether, based on an evaluation of the contemplated Site Activity and/or Use pursuant to the risk characterization process in 310 CMR 40.0900, a condition of No Significant Risk or No Substantial Hazard, whichever is applicable, will continue to exist if the contemplated changes in Site Activity and/or Use were to occur;
- (b) the risk characterization conducted pursuant to 310 CMR 40.0900 evaluating the contemplated Site Activity and/or Use on which the LSP Opinion in 310 CMR 40.1080(1)(a) is based; and
- (c) a response action plan in accordance with 310 CMR 40.1067 and 310 CMR 40.0000 that specifies any additional response actions necessary to maintain or achieve a condition of No Significant Risk or No Substantial Hazard for the contemplated Site Activity and/or Use and the objectives of the Activity and Use Limitation, if any such LSP Opinion indicates that a condition of No Significant Risk or No Substantial Hazard, whichever is applicable, would no longer be met as a result of the contemplated changes in Site Activity and/or Use.

(2) Procedures for Additional Response Actions. Additional response actions required to maintain a level of No Significant Risk or No Substantial Hazard, for the contemplated changes in Site Activities or Uses, shall be completed before the new or altered activities or uses commence in accordance with the following:

- (a) any additional response actions shall be conducted pursuant to 310 CMR 40.0000 and specifically 310 CMR 40.1067;
- (b) such response actions shall achieve a level of No Significant Risk or No Substantial Hazard, for the new/altered Site Activities or Uses contemplated for the disposal site;
- (c) the Activity and Use Limitation shall be amended or released as appropriate pursuant to 310 CMR 40.1081 to include the new or altered Site Activities or Uses identified in the LSP Opinion under 310 CMR 40.1080(1) before the new or altered Site Activities or Uses commence; and
- (d) a revised Permanent or Temporary Solution Statement, where applicable, shall be submitted to the Department to reflect any changes in conditions from the previous Permanent or Temporary Solution Statement within 60 days from completion of response actions.

(3) At any disposal site which relies, in whole or in part, upon a Grant of Environmental Restriction to maintain a level of No Significant Risk or No Substantial Hazard and where such Environmental Restriction is not granted in perpetuity, the RPs, PRPs and Other Persons liable and/or responsible for such site shall upon expiration of the Grant of Environmental Restriction either comply with the procedures set forth in 310 CMR 40.1080(1) and (2), or take any response actions required by 310 CMR 40.0000 to meet the objectives of the Grant of Environmental Restriction.

(4) Changes in Site Activities or Uses at an Adequately Regulated Disposal Site Subject to CERCLA where a Notice of Activity and Use Limitation Has Been Implemented. Where the selected remedy at an adequately regulated disposal site subject to CERCLA relies in whole or in part on land use controls implemented through a Notice of Activity and Use Limitation pursuant to 310 CMR 40.0111(8), any contemplated Site Activity and/or Use at such disposal site that is not identified by the Notice of Activity and Use Limitation as being consistent with the remedy selected under CERCLA for such disposal site shall be evaluated by a qualified hazardous waste site professional before such Site Activity and/or Use may occur. Such evaluation shall be submitted to EPA and the Department for their approval. Such evaluation shall include a risk characterization evaluating whether the contemplated Site Activity and/or Use is consistent with the maintenance of the remedy selected under CERCLA at such disposal site and with any Permanent Solution or Remedy Operation Status achieved at such disposal site under 310 CMR 40.0111(10) or 310 CMR 40.0111(11). Such evaluation shall also include a response action plan that specifies any additional response actions necessary to maintain the remedy selected under CERCLA at such disposal site and any Permanent Solution or Remedy Operation Status achieved under 310 CMR 40.0111(10) or 310 CMR 40.0111(11) at such disposal site. The new or altered Site Activities and/or Uses may commence only after:

- (a) EPA and the Department approve the evaluation submitted by the qualified hazardous waste site professional, including any required response action plan;
- (b) the additional response actions identified in the response action plan have been completed to EPA's and MassDEP's satisfaction; and
- (c) the Notice of Activity and Use Limitation is amended or released as appropriate pursuant to 310 CMR 40.1081 to include the new or altered Site Activities or Uses identified by the qualified hazardous waste site professional.

40.1081: Amendment of Activity and Use Limitations

- (1) An Activity and Use Limitation shall be amended where pursuant to the LSP Opinion required by 310 CMR 40.1080 such amendment of an Activity and Use Limitation is deemed necessary to meet the objectives of the Activity and Use Limitation (*e.g.*, either to maintain a level of No Significant Risk, or No Substantial Hazard for the new or altered Site Activities and Uses).
- (2) An Activity and Use Limitation may also be amended to expand or reduce the list(s) of restricted and/or permitted Site Activities and Uses, and obligations and/or conditions listed therein based on changed circumstances or other grounds.
- (3) Amending a Grant of Environmental Restriction. Grant of Environmental Restriction shall be amended in accordance with the following:
 - (a) an Amendment to Grant of Environmental Restriction shall be prepared using Form 1082A set forth in 310 CMR 40.1099;
 - (b) if a person(s) signing the Amendment to Grant of Environmental Restriction is not an individual signing on his/her own behalf, but rather on behalf of an entity (LLC, LLP, limited partnership, etc.), or as trustee, executor, or attorney in fact, documentation of the person(s) signatory authority, as described in 310 CMR 40.1071(2)(c), shall be submitted as an exhibit to the Amendment to Grant of Environmental Restriction;

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- (c) the Amendment to Grant of Environmental Restriction shall be submitted to the Department for the Commissioner's signature, with a certification of title issued to the Department certifying title in the Grantor and including all encumbrances of record, any necessary subordination agreements, the Activity and Use Limitation Opinion required by 310 CMR 40.1081(1) and the applicable fee pursuant to 310 CMR 4.00;
- (d) the Amendment to Grant of Environmental Restriction shall be recorded and/or registered by the property owner at the appropriate Registry(ies) of Deeds and/or Land Registration Office(s) within 30 days of the property owner's receipt from the Department of the amendment as approved by the Commissioner;
- (e) local officials and the public shall be informed of the Amendment to Grant of Environmental Restriction pursuant to 310 CMR 40.1403(7); and
- (f) within 30 days of recording and/or registering any Amendment to Grant of Environmental Restriction, the property owner shall submit to the Department:
 - 1. a certified Registry copy of the Amendment to Grant of Environmental Restriction bearing the book and page/instrument number and/or document number; and
 - 2. If the property subject to the Grant of Environmental Restriction is unregistered land, a Registry copy of the Grant of Environmental Restriction being amended.

(4) Amending a Notice of Activity and Use Limitation. A Notice of Activity and Use Limitation shall be amended in accordance with the following:

- (a) an Amendment to Notice of Activity and Use Limitation shall be prepared using the Form 1082B set forth in 310 CMR 40.1099;
- (b) if a person(s) signing the Amendment to Notice of Activity and Use Limitation is not an individual signing on his or her own behalf, but rather on behalf of an entity (LLC, LLP, limited partnership, *etc.*), or as trustee, executor, or attorney in fact, documentation of the person(s) signatory authority, as described in 310 CMR 40.1074(2)(c), shall be submitted as an exhibit to the Amendment to Notice of Activity and Use Limitation;
- (c) prior to the recording and/or registration of an Amendment to Notice of Activity and Use Limitation pursuant to 310 CMR 40.1081(4)(d), current holders of any record interest(s) in the area subject to the proposed Amendment to Notice of Activity and Use Limitation (including without limitation, owners, lessees, tenants, mortgagees, and holders of easements or licenses) shall be notified by the property owner by certified mail, return receipt requested, of the existence and location of oil and/or hazardous material within such area and the terms of such proposed Amendment to Notice of Activity and Use Limitation. Such proposed Amendment to Notice of Activity and Use Limitation shall not be recorded and/or registered until at least 30 days after such notification of current record interest holders has occurred, unless all parties receiving such notification provide a written waiver of the 30-day waiting period to the property owner;
- (d) the property owner shall record and/or register any Amendment to Notice of Activity and Use Limitation in the appropriate Registry of Deeds and/or Land Registration Office;
- (e) a Registry copy of the Amendment to Notice of Activity and Use Limitation shall be submitted to the Department with the LSP Opinion described in 310 CMR 40.1081(1);
- (f) the person(s) signing the Amendment to Notice of Activity and Use Limitation shall submit a statement, on a form prescribed by the Department, certifying that:
 - 1. the person(s) or entity identified as the property owner(s) on the Amendment to Notice of Activity and Use Limitation owned the property at the time the Amendment to Notice of Activity and Use Limitation was recorded and/or registered pursuant to 310 CMR 40.1081(4)(d); and
 - 2. record interest-holders were notified of the proposed Amendment to Notice of Activity and Use Limitation pursuant to 310 CMR 40.1081(4)(c);
- (g) local officials and the public shall be informed of the Amendment to Notice of Activity and Use Limitation pursuant to 310 CMR 40.1403(7); and
- (h) no later than 30 days after the recording and/or registration of the Amendment to Notice of Activity and Use Limitation, the following shall be submitted to the Department:
 - 1. a Registry copy of the Amendment to Notice of Activity and Use Limitation bearing the book and page/instrument number and/or document number;
 - 2. a Registry copy of the required survey plan(s) referenced in the Amendment to Notice of Activity and Use Limitation, bearing the plan book/plan number(s); and

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3. if the property subject to the Activity and Use Limitation is unregistered land, a Registry copy of the Notice of Activity and Use Limitation being amended.

40.1082: Process for Amending Grant of Environmental Restriction

- (1) The Department shall review each application for an Amendment to a Grant of Environmental Restriction to ensure that it conforms to all requirements established herein for such instruments.
- (2) An application for an Amendment to Grant of Environmental Restriction shall consist of:
 - (a) a completed Form 1082A, set forth in 310 CMR 40.1099;
 - (b) all other applicable documents set forth in 310 CMR 40.1081; and
 - (c) a certification of title that meets the requirements of 310 CMR 40.1072(2).
- (3) An application for an Amendment to Grant of Environmental Restriction shall not be deemed complete if the Department determines that the application:
 - (a) fails to contain all required information listed in 310 CMR 40.1081;
 - (b) fails to include the applicable fee established by 310 CMR 4.10(10)(h)(4); or
 - (c) is incorrectly filled out.
- (4) The Department has no obligation to accept or review an incomplete Amendment to a Grant of Environmental Restriction application.
- (5) Processing an Application for an Amendment to Grant of Environmental Restriction. For purposes of 310 CMR 4.10(10)(h), the provisions of 310 CMR 40.1072 for computing time for reviews, conducting Administrative Completeness (AC-1 and AC-2) and Technical Reviews (T-1 and T-2), and for approving or disapproving an application shall apply to the Department's review of a proposed Amendment to Grant of Environmental Restriction.
- (6) An Amendment to Grant of Environmental Restriction shall become effective upon recording and/or registering with the appropriate Registry of Deeds and/or Land Registration Office.

40.1083: Release or Termination of Activity and Use Limitations

- (1) General. A recorded and/or registered Activity and Use Limitation shall be released, partially released, terminated, or partially terminated in accordance with 310 CMR 40.1083, specifically:
 - (a) In cases where an Activity and Use Limitation is no longer necessary to maintain a level of No Significant Risk or No Substantial Hazard as a result of additional response actions that have been conducted at a disposal site or a portion of a disposal site pursuant to 310 CMR 40.0000, change in conditions at a disposal site or a portion of a disposal site, or a change in MCP requirements:
 1. a Grant of Environmental Restriction shall be released in accordance with 310 CMR 40.1083(2) using Form 1084A or 310 CMR 40.1083(4) using Form 1083A (for a partial release);
 2. a Notice of Activity and Use Limitation shall be released in accordance with 310 CMR 40.1083(3) using Form 1084B or 310 CMR 40.1083(5) using Form 1083B (for a partial termination);
 - (b) In cases where the termination of a Notice of Activity and Use Limitation is required pursuant to 310 CMR 40.1085(2)(a) to correct and immediately replace the Notice of Activity and Use Limitation, the Notice of Activity and Use Limitation shall be terminated in accordance with 310 CMR 40.1083(3) using Form 1084C;
 - (c) In cases where the Activity and Use Limitation is being released or terminated because additional response actions must be conducted to support the conclusion that a condition of No Significant Risk or a condition of No Substantial Hazard has been achieved at a disposal site or a portion of a disposal site:
 1. a Grant of Environmental Restriction shall be released in accordance with 310 CMR 40.1083(2) using Form 1084E;
 2. a Notice of Activity and Use Limitation shall be released in accordance with 310 CMR 40.1083(3) using Form 1084D;
 - (d) In any case where the termination or release of an Activity and Use Limitation results in a change in the category of a Permanent Solution for the disposal site or portion of the disposal site where the Activity and Use Limitation was implemented, a revised Permanent Solution

Statement and supporting documentation pursuant to 310 CMR 40.1056, including justification as to why the Activity and Use Limitation is being terminated or released, shall be submitted to the Department.

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(2) Release of a Grant of Environmental Restriction. A Grant of Environmental Restriction shall be released in accordance with the following procedures:

- (a) a Release of Grant of Environmental Restriction shall be prepared using Form 1084A or Form 1084E set forth in 310 CMR 40.1099, whichever is applicable, which includes an LSP Opinion attached as Exhibit B that explains why the Grant of Environmental Restriction is no longer necessary to maintain a condition of No Significant Risk or No Substantial Hazard at the property, and submitted to the Department for the Commissioner's signature, accompanied by the appropriate fee as established in 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*;
- (b) within 30 days of the date of the property owner's receipt from the Department of the approved Release of Grant of Environmental Restriction, the Release of Grant of Environmental Restriction shall be recorded and/or registered at the appropriate Registry of Deeds and/or Land Registration Office;
- (c) local officials and the public shall be informed of the Release of Grant of Environmental Restriction pursuant to 310 CMR 40.1403(7); and
- (d) within 30 days of recording and/or registering any Release of Grant of Environmental Restriction, the property owner shall submit to the Department:
 - 1. a certified Registry copy of the Release of Grant of Environmental Restriction bearing the book and page/instrument number and/or document number; and
 - 2. if the property subject to the Grant of Environmental Restriction is unregistered land, a Registry copy of the Grant of Environmental Restriction being released.
- (e) where the Grant of Environmental Restriction applies to a disposal site for which a Permanent Solution was previously submitted to the Department and the release of the Grant of Environmental Restriction results in a change in the category of Permanent Solution, a revised Permanent Solution Statement and supporting documentation pursuant to 310 CMR 40.1083(1)(d) shall be submitted to the Department.

(3) Termination of a Notice of Activity and Use Limitation. A Notice of Activity and Use Limitation shall be terminated in accordance with the following procedures:

- (a) a Termination of Notice of Activity and Use Limitation shall be prepared using the appropriate form set forth in 310 CMR 40.1099;
- (b) if a person(s) signing the Termination of Notice of Activity and Use Limitation is not an individual signing on his or her own behalf, but rather on behalf of an entity (LLC, LLP, limited partnership, *etc.*), or as trustee, executor, or attorney in fact, documentation of the person(s) signatory authority, as described in 310 CMR 40.1074(2)(c), shall be submitted as an exhibit to the Termination of Notice of Activity and Use Limitation;
- (c) the Termination of Notice of Activity and Use Limitation shall be recorded and/or registered at the appropriate Registry of Deeds and/or Land Registration Office;
- (d) the person(s) signing the Termination of Notice of Activity and Use Limitation shall submit a statement, on a form prescribed by the Department, certifying that the person(s) or entity identified as the property owner(s) on the termination owned the property at the time the termination was recorded and/or registered pursuant to 310 CMR 40.1083(1)(e)3;
- (e) local officials and the public shall be informed of the Termination of Notice of Activity and Use Limitation pursuant to 310 CMR 40.1403(7);
- (f) within 30 days of recording and/or registering any Termination of Notice of Activity and Use Limitation, the property owner shall submit to the Department a certified Registry copy of the Termination of Notice of Activity and Use Limitation bearing the book and page/instrument number and/or document number; and
- (g) where the Notice of Activity and Use Limitation applies to a disposal site for which a Permanent Solution was previously submitted to the Department and the termination of the Notice of Activity and Use Limitation results in a change in the category of Permanent Solution, a revised Permanent Solution Statement and supporting documentation pursuant to 310 CMR 40.1083(1)(d) shall be submitted to the Department.

(4) Partial Release of a Grant of Environmental Restriction. In cases where, as a result of additional response actions pursuant to 310 CMR 40.0000 conducted at a disposal site or a portion of a disposal site, a recorded and/or registered Grant of Environmental Restriction is no longer necessary to maintain a level of No Significant Risk or to eliminate a substantial hazard at a portion of the property subject to the Grant of Environmental Restriction, such Grant of Environmental Restriction shall be partially released as to such portion of the property pursuant to the following procedures:

(a) a Partial Release of Grant of Environmental Restriction shall be prepared using Form 1083A set forth in 310 CMR 40.1099 which includes an LSP Opinion attached as Exhibit B that explains why the Grant of Environmental Restriction is no longer necessary to maintain a condition of No Significant Risk or No Substantial Hazard at the portion of the property subject to the partial release, and submitted to the Department for the Commissioner's signature, accompanied by the appropriate fee established in 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*;

(b) a Partial Release of Grant of Environmental Restriction shall include a metes and bounds description of the portion of the property being released from the Grant of Environmental Restriction, and:

40.1083: continued

1. (registered land only) an 8½" x 11" survey plan, attached as an exhibit to the Partial Release of Grant of Environmental Restriction, prepared by a Massachusetts Registered Land Surveyor, which shows the metes and bounds of the portion of the property being released; or
 2. (registered land only) a reference to the Land Court Plan which shows the boundaries of the portion of the property being released; or
 3. (unregistered land only) reference to a survey plan of the portion of the property being released, prepared by a Massachusetts Registered Land Surveyor, meeting registry plan recording requirements, and recorded as a plan with the appropriate registry of deeds.
- (c) within 30 days of the date of the property owner's receipt from the Department of the approved Partial Release of Grant of Environmental Restriction, the Partial Release of Grant of Environmental Restriction shall be recorded and/or registered at the appropriate Registry of Deeds and/or Land Registration Office.
- (d) local officials and the public shall be informed of the Partial Release of Grant of Environmental Restriction pursuant to 310 CMR 40.1403(7);
- (e) where the Grant of Environmental Restriction applies to a disposal site for which a Permanent Solution was previously submitted to the Department and the Partial Release of the Grant of Environmental Restriction results in a change in the category of Permanent Solution, a revised Permanent Solution Statement and supporting documentation pursuant to 310 CMR 40.1083(1)(d) shall be submitted to the Department; and
- (f) within 30 days of recording and/or registering any Partial Release of Grant of Environmental Restriction, the property owner shall submit to the Department:
1. a certified Registry copy of the Partial Release of Grant of Environmental Restriction bearing the book and page/instrument number and/or document number; and
 2. if the property subject to the Grant of Environmental Restriction is unregistered land, a Registry copy of the Grant of Environmental Restriction being partially released; and
 3. a Registry copy of the required survey plan(s) referenced in the Partial Release of Grant of Environmental Restriction bearing the plan book/plan number(s).

(5) Partial Termination of a Notice of Activity and Use Limitation. In cases where, as a result of additional response actions pursuant to 310 CMR 40.0000 conducted at a disposal site or a portion of a disposal site, a recorded and/or registered Notice of Activity and Use Limitation is no longer necessary to maintain a level of No Significant Risk or No Substantial Hazard at a portion of the property subject to the Notice of Activity and Use Limitation, such Notice of Activity and Use Limitation shall be partially terminated as to such portion of the property pursuant to the following procedures:

- (a) a Partial Termination of Notice of Activity and Use Limitation shall be prepared using Form 1083B set forth at 310 CMR 40.1099;
- (b) if a person(s) signing the Partial Termination of Notice of Activity and Use Limitation is not an individual signing on his or her own behalf, but rather on behalf of an entity (LLC, LLP, limited partnership, *etc.*), or as trustee, executor, or attorney in fact, documentation of the person(s) signatory authority, as described in 310 CMR 40.1074(2)(c), shall be submitted as an exhibit to the Partial Termination of Notice of Activity and Use Limitation;
- (c) the Partial Termination of Notice of Activity and Use Limitation shall include a metes and bounds description of the portion of the property for which the Notice of Activity and Use Limitation is no longer required, and:
 1. (registered land only) an 8½" x 11" survey plan, prepared by a Massachusetts Registered Land Surveyor, which shows the metes and bounds of the portion of the property; or
 2. (registered land only) a reference to the Land Court Plan which shows the boundaries of the portion of the property; or
 3. (unregistered land only) reference to a survey plan of the portion of the property, prepared by a Massachusetts Registered Land Surveyor, meeting registry plan recording requirements, and recorded as a plan with the appropriate registry of deeds.

40.1083: continued

- (d) the Partial Termination of Notice of Activity and Use Limitation shall be recorded and/or registered by the property owner at the appropriate Registry of Deeds and/or Land Registration Office;
- (e) the person(s) signing the Partial Termination of Notice of Activity and Use Limitation shall submit a statement, on a form prescribed by the Department, certifying that the person(s) or entity identified as the property owner(s) on the Partial Termination of Notice of Activity and Use Limitation owned the property at the time the Partial Termination of Notice of Activity and Use Limitation was recorded and/or registered pursuant to 310 CMR 40.1083(3)(e);
- (f) local officials and the public shall be informed of the Partial Termination of Notice of Activity and Use Limitation pursuant to 310 CMR 40.1403(7);
- (g) where the Notice of Activity and Use Limitation applies to a disposal site for which a Permanent Solution was previously submitted to the Department, and the Partial Termination of the Notice of Activity and Use Limitation results in a change in the category of Permanent Solution, a revised Permanent Solution Statement and supporting documentation pursuant to 310 CMR 40.1083(1)(d) shall be submitted to the Department; and
- (i) within 30 days of recording and/or registering any Partial Termination of Notice of Activity and Use Limitation, the property owner shall submit to the Department:
 - 1. a Registry copy of the Partial Termination of Notice of Activity and Use Limitation bearing the book and page/instrument number and/or document number;
 - 2. if the property subject to the Notice of Activity and Use Limitation is unregistered land, a Registry copy of the Notice of Activity and Use Limitation being partially terminated; and
 - 3. a Registry copy of the required survey plan(s) referenced in the Partial Termination of Notice of Activity and Use Limitation bearing the plan book/plan number(s).

40.1084: Process for Implementing a Release of Grant of Environmental Restriction or Partial Release of Grant of Environmental Restriction

- (1) The Department shall conduct a review of each application for a Release of Grant of Environmental Restriction or Partial Release of Grant of Environmental Restriction to ensure that it conforms to all legal requirements for such instruments.
- (2) An application for a Release of Grant of Environmental Restriction shall consist of a completed Form 1084A, set forth in 310 CMR 40.1099, in addition to all other applicable documents set forth in 310 CMR 40.1083.
- (3) An application for a Partial Release of Grant of Environmental Restriction shall consist of a completed Form 1083A, set forth in 310 CMR 40.1099, in addition to all other applicable documents set forth in 310 CMR 40.1083.
- (4) An application for a Release of Grant of Environmental Restriction or Partial Release of Grant of Environmental Restriction shall not be deemed complete if the Department determines that the application:
 - (a) fails to contain all required information listed in 310 CMR 40.1083;
 - (b) fails to include the applicable fee established by 310 CMR 4.10(10)(i)4.; or
 - (c) is incorrectly filled out.
- (5) The Department has no obligation to accept or review an incomplete application for a Release of Grant of Environmental Restriction or Partial Release of Grant of Environmental Restriction.
- (6) Processing a Release of Grant of Environmental Restriction Application or Partial Release of Grant of Environmental Restriction Application. For purposes of 310 CMR 4.10(10)(i), the provisions of 310 CMR 40.1072 for computing time for reviews, conducting Administrative Completeness (AC-1 and AC-2) and Technical Reviews (T-1 and T-2), and approving or disapproving of an application shall apply to the Department's review of a proposed Release of Grant of Environmental Restriction or Partial Release of Grant of Environmental Restriction.

40.1084: continued

(7) A Release of Grant of Environmental Restriction or Partial Release of Grant of Environmental Restriction shall become effective upon recordation and/or registration with the appropriate Registry of Deeds and/or Land Registration Office.

40.1085: Correction of Notices of Activity and Use Limitation

(1) Except as provided by 310 CMR 40.1085(2), scrivener's errors and other non-substantive errors or omissions in a recorded Notice of Activity and Use Limitation, or in any Amendment, Partial Termination or Termination thereof, may be corrected by implementing a Confirmatory Activity and Use Limitation in accordance with this section.

(2) A Confirmatory Activity and Use Limitation may not be used if the property subject to the Notice of Activity and Use Limitation is registered land or to correct substantive errors or omissions in a recorded Notice of Activity and Use Limitation or Amendment. In such cases, the errors must be corrected by either:

- (a) terminating the Notice of Activity and Use Limitation in accordance with 310 CMR 40.1083(1)(b) and 310 CMR 40.1083(3) and immediately implementing a new Notice of Activity and Use Limitation in substitution thereof, in accordance with 310 CMR 40.1074; or
- (b) if the instrument being corrected is an Amendment to Notice of Activity and Use Limitation, implementing a new amendment in accordance with 310 CMR 40.1081.

(3) Confirmatory Activity and Use Limitations may include any of the following:

- (a) Confirmatory Notice of Activity and Use Limitation;
- (b) Confirmatory Amendment to Notice of Activity and Use Limitation;
- (c) Confirmatory Partial Termination of Notice of Activity and Use Limitation; and
- (d) Confirmatory Termination of Notice of Activity and Use Limitation.

(4) Confirmatory Activity and Use Limitations shall be implemented in accordance with the following:

- (a) a Confirmatory Activity and Use Limitation shall be prepared using the appropriate form set forth in 310 CMR 40.1099;
- (b) if a person(s) signing the Confirmatory Activity and Use Limitation is not an individual signing on his/her own behalf, but rather on behalf of an entity (LLC, LLP, limited partnership, *etc.*), or as trustee, executor, or attorney in fact, documentation of the person(s) signatory authority, as described in 310 CMR 40.1074(2)(c), shall be submitted as an exhibit to the Confirmatory Activity and Use Limitation;
- (c) the Confirmatory Activity and Use Limitation shall be recorded in the appropriate Registry of Deeds;
- (d) the person(s) signing the Confirmatory Activity and Use Limitation shall submit a statement, on a form prescribed by the Department, certifying that the person(s) or entity identified as the property owner(s) on the Confirmatory Activity and Use Limitation owned the property at the time the Confirmatory Activity and Use Limitation was recorded and/or registered pursuant to 310 CMR 40.1085(4)(c); and
- (e) within 30 days of recording any Confirmatory Activity and Use Limitation, the property owner shall submit the following to the Department:
 - 1. a Registry copy of the Confirmatory Activity and Use Limitation; and
 - 2. a Registry copy of any required survey plan(s) referenced in the Confirmatory Activity and Use Limitation bearing the plan book/plan number(s).

40.1090: Public Involvement Requirements

(1) Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 40.1406. Public Involvement Activities relevant to Permanent or Temporary Solution Opinions specifically include 310 CMR 40.1403(3)(f) and may include, but are not limited to, those activities set forth at 310 CMR 40.1403(7) and (8) and 40.1406.

(2) If the disposal site for which a Permanent or Temporary Solution Opinion is rendered is a Public Involvement Plan Site, then a Public Involvement Plan that is consistent with 310 CMR 40.1405 shall be implemented.

40.1099: Forms for Activity and Use Limitations

- Form 1072A: Grant of Environmental Restriction
- Form 1072B: Subordination Agreement
- Form 1075: Notice of Activity and Use Limitation
- Form 1082A: Amendment to Grant of Environmental Restriction
- Form 1082B: Amendment to Notice of Activity and Use Limitation
- Form 1083A: Partial Release of Grant of Environmental Restriction
- Form 1083B: Partial Termination of Notice of Activity and Use Limitation
- Form 1084A: Release of Grant of Environmental Restriction (pursuant to 310 CMR 40.1083(1)(a))
- Form 1084B: Termination of Notice of Activity and Use Limitation (pursuant to 310 CMR 40.1083(1)(a))
- Form 1084C: Termination of Notice of Activity and Use Limitation (pursuant to 310 CMR 40.1083(1)(b))
- Form 1084D: Termination of Notice of Activity and Use Limitation (pursuant to 310 CMR 40.1083(1)(c))
- Form 1084E: Release of Grant of Environmental Restriction (pursuant to 310 CMR 40.1083(1)(d))

Form 1072A

GRANT OF ENVIRONMENTAL RESTRICTION

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

DEP Site Name: _____

DEP Release Tracking No.(s) _____

This GRANT OF ENVIRONMENTAL RESTRICTION is made as of this ____ day of _____, 20____, by _____, of _____ (Town/City), _____ County, _____ (State) ("Grantor").

W I T N E S S E T H

WHEREAS, _____ is the owner(s) in fee simple of that [those] certain parcel(s) of [vacant] land located in _____ (Town/City), _____ County, Massachusetts [with the buildings and improvements thereon], pursuant to [a deed recorded with the _____ Registry of Deeds in Book _____, Page _____];[source of title other than by deed];and/or [Certificate of Title No. _____ issued by the Land Registration Office of the _____ Registry District];

WHEREAS, said parcel(s) of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property") is subject to this Grant of Environmental Restriction. The Property is shown on [a plan recorded with the _____ County Registry of Deeds in Plan Book _____, Plan _____], and/or on [Land Court Plan No. _____];

[WHEREAS, a portion of the Property ("Portion of the Property") is subject to this Grant of Environmental Restriction. The Portion of the Property is more particularly bounded and described in Exhibit A-1, attached hereto and made a part hereof. The Portion of the Property is shown on [a plan recorded with the _____ Registry of Deeds in Plan Book _____, Plan _____] and/or on [a sketch plan attached hereto and filed herewith for registration];

WHEREAS, the [Property] ["Portion of the Property"] comprises [all][part of] a disposal site as the result of a release of oil and/or hazardous material. Exhibit B is a sketch plan showing the location of the [Property][Portion of the Property] subject to this Grant of Environmental Restriction in relation to the boundaries of said disposal site existing within the limits of the Property and to the extent such boundaries have been established. Exhibit B is attached hereto and made a part hereof; and

WHEREAS, one or more response actions have been selected for [the Disposal Site][Portion of the Disposal Site] in accordance with M.G.L. c. 21E ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and/or hazardous material in soil [and/or groundwater] and/or (b) the restriction of certain activities occurring in, on, through, over or under the [Property] [Portion of the Property]. The basis for such restrictions is set forth in an Activity and Use Limitation Opinion ("AUL Opinion") dated _____, (which is attached hereto as Exhibit C and made a part hereof);

NOW, THEREFORE, in accordance with the provisions of M.G.L. c. 21E, § 6 and the MCP, I, _____ ("Grantor") hereby GRANT to the DEPARTMENT OF ENVIRONMENTAL PROTECTION, an agency established under the laws of the Commonwealth of Massachusetts, having its principal office at One Winter Street, Boston, Massachusetts 02108 ("DEP"), as a gift, with QUITCLAIM COVENANTS, an ENVIRONMENTAL RESTRICTION, ("Restriction") in, on, through, over and under the [Property] [Portion of the Property] ("Restricted Area").

Said Restriction is subject to the following terms and conditions:

1. Restricted Uses and Activities. Grantor shall not perform, suffer, allow or cause any person to perform any of the following activities in, on, upon, through, over or under the Restricted Area, or any of the following uses to be made of the Restricted Area:

(i) [List restricted uses]; and/or

Form 1072A: continued

- (ii) [List restricted activities];
- (iii) Except as provided in Paragraphs (2) and (4) of this Grant, there shall be no excavation or removal of any loam, peat, gravel, sand, rock or other mineral or natural resource; and
- (iv) Any action or inaction which, in the Opinion of a person licensed by the Board of Registration of Waste Cleanup Professionals, or any successor agency (a holder of such license hereinafter referred to as "LSP"), is reasonably likely to:
 - (a) (select one) [Create a significant risk of harm to health, safety, public welfare or the environment] [Create a substantial hazard];
 - (b) [Where remedial action includes a surface cover, cap or sealant designed to contain or reduce exposure to the oil and/or hazardous material, disturb the structural integrity of such cover, without first obtaining the express written consent of an LSP].

2. Permitted Uses and Activities. Grantor expressly reserves the right to perform, suffer, allow or to cause any person to perform any of the following activities in, on, through, over or under the Restricted Area or any of the following uses to be made of the Restricted Area:

- (i) _____;
- (ii) _____;
- (iii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare or the environment than the activities and uses set forth in this Paragraph; and
- (iv) Such other activities and uses not identified in Paragraph 1 as being Restricted Uses and Activities.

3. Obligations and Conditions. Grantor affirmatively agrees to perform the following activities [and][or] to maintain the following conditions at the Restricted Area in order to (select one) [maintain a condition of No Significant Risk] [eliminate a substantial hazard] (such conditions and terms defined in 310 CMR 40.0000) as set forth in the AUL Opinion.

[Insert specific activities and conditions set forth in the AUL Opinion, if any.]

4. Emergency Excavation. If it becomes necessary to excavate as part of a response to an emergency (*e.g.*, repairing utility lines or responding to a fire or flood), and such excavation could result in a significant risk of harm from exposure to oil and/or hazardous material at the Restricted Area, the requirements of Paragraph (1) (iii) of this Grant may be suspended, provided Grantor complies with the requirements set forth in 310 CMR 40.0320, and:

- (i) Notifies DEP of such emergency as soon as possible but no more than two hours after having learned of such emergency;
- (ii) Limits the actual disturbance involved in such excavation to the minimum reasonably necessary to adequately respond to the emergency;
- (iii) Implements all measures necessary to limit actual or potential risk to health, safety, public welfare or the environment, including the following:
 - 1. _____ ;
 - 2. _____ ;
 - 3. _____; and

Form 1072A: continued

(iv) Engages an LSP to oversee the implementation of this Paragraph, and to prepare and oversee the implementation of a written plan which, in the LSP's Opinion, will restore the Restricted Area to a condition(s) that meets the objectives of the Grant of Environmental Restriction in accordance with 310 CMR 40.1071(2)(l)

5. Easements. In establishing this Restriction, Grantor hereby grants the following easements for the term of this Grant to DEP, its agents, contractors, subcontractors, and employees:

(i) To pass and repass over [the Property] [the Restricted Area] for purposes of inspecting the Restricted Area to insure compliance with the terms of this Restriction; and

(ii) In, on, through, over and under the Restricted Area for purposes of conducting subsurface investigations, installing groundwater monitoring wells, and conducting other investigations of the Restricted Area and/or remediation activities consistent with M.G.L. c. 21E and the MCP.

6. Severability. Grantor hereby agrees, in the event that a court or other tribunal determines that any provision of this instrument is invalid or unenforceable:

(i) That any such provision shall be deemed automatically modified to conform to the requirements for validity and enforceability as determined by such court or tribunal; or

(ii) That any such provision that, by its nature, cannot be so modified, shall be deemed deleted from this instrument as though it had never been included.

In either case, the remaining provisions of this instrument shall remain in full force and effect.

7. Enforcement. Grantor expressly acknowledges that a violation of the terms of this instrument could result in the following:

(i) the assessment of penalties and other action by DEP to enforce the terms of this Restriction, pursuant to M.G.L. c. 21E and the MCP; and/or

(ii) upon a determination by a court of competent jurisdiction, the issuance of criminal and civil penalties, and/or equitable remedies which could include the issuance of an order to modify or remove any improvements constructed in violation of the terms of this Restriction.

8. Provisions to Run with the Land. This Restriction establishes certain rights, liabilities, agreements and obligations for the [Property] [Restricted Area], or any portion thereof, which shall run with the [Property] [Restricted Area], or any portion thereof, for the term of this Restriction. Grantor hereby covenants for himself/herself/itself and his/her/its executors, administrators, heirs, successors and assigns, to stand seized and hold title to the [Property] [Restricted Area], or any portion thereof, subject to this Restriction.

The rights granted to DEP, its successors and assigns, do not provide, however, that a violation of this Restriction shall result in a forfeiture or reversion of Grantor's title to the Restricted Area.

9. Concurrence Presumed. It is agreed that:

(i) Grantor and all parties claiming by, through or under Grantor shall be deemed to be in accord with the provisions of this document; and

(ii) all such parties and any party claiming by, through or under them, and their respective agents, contractors, sub-contractors and employees, also agree that the Restriction herein established shall not be violated and that their respective interests in the [Property] [Restricted Area] shall be subject to the provisions herein set forth.

Form 1072A: continued

10. Incorporation into Deeds, Mortgages, Leases and Instruments of Transfer. Grantor hereby agrees to incorporate this Restriction, in full or by reference, into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer by which an interest in and/or a right to use the [Property] [Restricted Area], or any portion thereof, is conveyed.
11. Amendment and Release. This Restriction may be amended or released in accordance with M.G.L. c. 21E and the MCP (310 CMR 40.1080 *et seq.*).
12. No Dedication Intended. Nothing herein shall be construed to be a gift or dedication of the [Property] [Restricted Area] to DEP or to the general public for any purpose whatsoever.
13. Term. This Restriction shall run [in perpetuity] [for a period of ____ years] and is intended to conform to M.G.L. c. 184, § 26.
14. Rights Reserved. It is expressly agreed that acceptance of this Restriction by DEP shall not express nor imply DEP approval of the adequacy of this or any other response action affecting the [Disposal Site][Portion of Disposal Site]. Acceptance of this Restriction shall not operate to bar, diminish, nor in any way affect any legal or equitable right of DEP to issue any future order with respect to the (select one) [Disposal Site][Portion of the Disposal Site] or in any way affect any other claim, action, suit, cause of action, or demand which DEP may have with respect to the [Disposal Site][Portion of the Disposal Site].

This Restriction shall become effective upon its recordation and/or registration with the appropriate Registry of Deeds and/or Land Registration Office.

As this Restriction is a gift, no Massachusetts deed excise stamps are affixed hereto, none being required by law.

WITNESS the execution hereof under seal this ____ day of _____, 20__.

[Name of Grantor]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20__

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership, and as described in Exhibit D)
([as _____ for _____, a corporation, and as described in Exhibit D)
(as attorney in fact for _____, the principal, and as described in Exhibit D)
(as _____ for _____, (a) (the) _____, and as described in Exhibit D)

_____ (official signature and seal of notary)

The undersigned Waste Site Cleanup Professional hereby certifies that [he][she] executed the AUL Opinion, dated ____, filed with the Department of Environmental Protection under Release Tracking No(s). ____, and attached hereto as Exhibit C and made a part hereof, and that in [his][her] Opinion this Restriction is consistent with the terms of said AUL Opinion.

Date:_____

[Name of LSP]
[LSP SEAL]

Form 1072A: continued

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20__

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

In accordance with M.G.L. c. 21E, § 6, and the Massachusetts Contingency Plan (310 CMR 40.0000), the Commissioner of the Department of Environmental Protection hereby approves this Grant of Environmental Restriction (as to form only).

Date: _____

Commissioner
Department of Environmental Protection

Upon recording, return to:

Office of General Counsel
Department of Environmental Protection
One Winter Street
Boston, MA 02108

Form 1072B

SUBORDINATION AGREEMENT

Disposal Site Name: _____
DEP Release Tracking No.(s)_____

_____, of _____(Town/City), _____
County, _____(State), is the holder of a _____ granted by
_____ to _____, dated _____, recorded with
_____ Registry of Deeds in Book _____, Page _____ and/or registered with the Land Registration
Office of _____ Registry District as Document No._____.

_____ hereby assents to the Grant of Environmental Restriction granted by
_____ to the Department of Environmental Protection dated _____ and recorded
with the _____ Registry of Deeds in Book _____, Page _____, and/or registered with the Land
Registration Office of _____ Registry District as Document No._____, and agrees that the
_____ shall be subject to said Grant and to the rights created by and under said Grant insofar as
the interests created under the _____ affect the [Property] [Restricted Area] identified in the Grant and
as if for all purposes said Grant had been executed, delivered and recorded prior to the execution, delivery and
recordation and/or registration of the _____.

WITNESS the execution hereof under seal this _____ day of _____, 20_____.

Holder

COMMONWEALTH OF MASSACHUSETTS

_____, ss _____, 20__

On this _____ day of _____, 20__, before me, the undersigned notary public, personally
appeared _____ (name of document signer), proved to me through
satisfactory evidence of identification, which were _____, to be the person
whose name is signed on the preceding or attached document, and acknowledged to me that (he)
(she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

[The execution of this Subordination Agreement by a secured lender and/or a fiduciary (as defined
in M.G.L. c. 21E, § 2) for the purpose of subordinating its lien to said Grant shall not render such secured lender
or fiduciary an "owner" or "operator", provided such secured lender and/or fiduciary shall not otherwise be an
"owner" or "operator" within the meaning of § 2.]

Upon recording, return to:

Department of Environmental Protection
One Winter Street
Boston, MA 02108

Form 1075

Note: Pursuant to 310 CMR 40.1074(5), upon transfer of any interest in or a right to use the property or a portion thereof that is subject to this Notice of Activity and Use Limitation, the Notice of Activity and Use Limitation shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer. Within 30 days of so incorporating the Notice of Activity and Use Limitation in a deed that is recorded or registered, a copy of such deed shall be submitted to the Department of Environmental Protection.

[CONFIRMATORY] NOTICE OF ACTIVITY AND USE LIMITATION

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: _____

DEP Release Tracking No.(s): _____

This [Confirmatory] Notice of Activity and Use Limitation ("Notice") is made as of this ____ day of _____, 20____, by _____ [Name and address of property owner(s)], together with his/her/its/their successors and assigns (collectively "Owner").

W I T N E S S E T H:

WHEREAS, _____ (Name of Owner(s)), [is][are] the owner(s) in fee simple of [that][those] certain parcel(s) of [vacant] land located in _____ (Town/City), _____ County, Massachusetts [with the buildings and improvements thereon], pursuant to [a deed recorded with the _____ Registry of Deeds in Book _____, Page _____]; [source of title other than by deed]; and/or [Certificate of Title No. _____ issued by the Land Registration Office of the _____ Registry District];

WHEREAS, said parcel(s) of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property") is subject to this Notice of Activity and Use Limitation. The Property is shown on [a plan recorded in the _____ Registry of Deeds in Plan Book _____, Plan _____], and/or on [Land Court Plan No. _____];

[WHEREAS, a portion of the Property ("Portion of the Property") is subject to this [Notice of Activity and Use Limitation]. The Portion of the Property is more particularly bounded and described in Exhibit A-1, attached hereto and made a part hereof. The Portion of the Property is shown on [a plan recorded with the _____ Registry of Deeds in Plan Book _____, Plan _____], and/or on [a sketch plan attached hereto and filed herewith for registration];

WHEREAS, the [Property] [Portion of the Property] comprises [all][part of] a disposal site as the result of [a] release[(s)] of oil and/or hazardous material.

Exhibit B is a sketch plan showing the relationship of the [Property][Portion of the Property] subject to this Notice of Activity and Use Limitation to the boundaries of said disposal site existing within the limits of the Property and to the extent such boundaries have been established. Exhibit B is attached hereto and made a part hereof; and

WHEREAS, one or more response actions have been selected for the [Disposal Site][Portion of the Disposal Site] in accordance with M.G.L. c. 21E ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and/or hazardous material in soil [and/or groundwater] and/or (b) the restriction of certain activities occurring in, on, through, over or under the [Property] [Portion of the Property]. A description of the basis for such restrictions, and the oil and/or hazardous material release event(s) or site history that resulted in the contaminated media subject to the Notice of Activity and Use Limitation is attached hereto as Exhibit C and made a part hereof (Exhibit C shall include: (a) a statement that specifies why the Notice of Activity and Use Limitation is appropriate to maintain a Permanent Solution and condition of No Significant Risk, maintain a Temporary Solution and condition of No Substantial Hazard, or maintain Remedy Operation Status and a condition of No Substantial Hazard; (b) a description of the oil and/or hazardous material release event(s) or site history that resulted in the contaminated media subject to the Notice of Activity and Use Limitation (*i.e.*, date of the release(s), to the extent known, release volumes(s), and response actions taken to address the release(s); and (c) a description of the contaminated media (*i.e.*, media type(s), approximate vertical and horizontal extent) subject to the Notice of Activity and Use Limitation.);

Form 1075: continued

NOW, THEREFORE, notice is hereby given that the activity and use limitations set forth in this Notice of Activity and Use Limitation are as follows:

1. Activities and Uses Consistent with Maintaining (select one) [No Significant Risk] [No Substantial Hazard] Conditions. The following Activities and Uses are consistent with maintaining (select one) [a Permanent Solution and a condition of No Significant Risk][a Temporary Solution and a condition of No Substantial Hazard] [Remedy Operation Status and a condition of No Substantial Hazard] and, as such, may occur on the [Property][Portion of the Property] pursuant to 310 CMR 40.0000:

(i) ;

(ii) ;

(iii) Such other activities or uses which, in the Opinion of a Licensed Site Professional, shall present no greater risk of harm to health, safety, public welfare or the environment than the activities and uses set forth in this Paragraph; and

(iv) Such other activities and uses not identified in Paragraph 2 as being Activities and Uses Inconsistent with (select one)[maintaining No Significant Risk][No Substantial Hazard]Conditions.

2. Activities and Uses Inconsistent with (select one)[Maintaining No Significant Risk][No Substantial Hazard] Conditions. The following Activities and Uses are inconsistent with maintaining (select one) [a Permanent Solution and a condition of No Significant Risk][a Temporary Solution and a condition of No Substantial Hazard] [Remedy Operation Status and a condition of No Substantial Hazard] pursuant to 310 CMR 40.0000, and, as such, may not occur on the[Property][Portion of the Property]:

(i) ;

(ii) ; and

(iii) .

3. Obligations and Conditions. The following obligations and/or conditions are necessary and shall be undertaken and/or maintained at the [Property] [Portion of the Property] to (select one) [maintain a Permanent Solution and a condition of No Significant Risk] [maintain a Temporary Solution and a condition of No Substantial Hazard] [Remedy Operation Status and a condition of No Substantial Hazard]:

(i) ;

(ii) ; and

(iii) .

(For a Permanent Solution with Conditions that relies upon the operation and maintenance of an Active Exposure Pathway Mitigation Measure, installed to prevent the migration of subsurface vapors into a building pursuant to 310 CMR 40.1025, include the following in the listed Obligations and Conditions:

[(i) The Active Exposure Pathway Mitigation Measure comprised of (insert description of the system type) located (specify where on the property the system is located) shall be operated according to the operating regimen specified in the Permanent Solution Statement submitted to the Department of Environmental Protection to ensure a level of No Significant Risk is maintained for the Receptor(s) of concern under normal operating conditions;

(ii) The Active Exposure Pathway Mitigation Measure shall employ remote monitoring technology that alerts the property owner and operator and the Department of Environmental Protection immediately upon loss of power, mechanical failure or other significant disruption of the effectiveness of the system;

(iii) In the event of any suspension or failure of the Active Exposure Pathway Mitigation

Measure, immediate steps shall be taken to return the Active Exposure Pathway Mitigation Measure to full operating condition;

Form 1075: continued

(iv) If such suspension or failure of the system lasts 30 or more consecutive days, written notice shall be provided to both Department of Environmental Protection and any non-transient building occupant who may have experienced exposure to oil and/or hazardous material as the result of the system failure or suspension on the 30th day from the start of the suspension or failure period; this notice shall document the reason for the suspension or failure of the system, any efforts taken to resume operation of such Measures, and the expected timeframe for resuming operation of such Measure; and

(v) .])

(For a Permanent Solution with Conditions that relies upon the operation and maintenance of an Active Exposure Pathway Mitigation Measure installed for the removal of oil or hazardous material from drinking water supplied by a private water supply well pursuant to 310 CMR 40.1025, include the following in the listed Obligations and Conditions:

[(i) The Active Exposure Pathway Mitigation Measure comprised of (insert description of the system type) located (specify where on the property the system is located) shall be operated according to the operating regimen specified in the Permanent Solution Statement submitted to the Department of Environmental Protection to ensure a level of No Significant Risk is maintained for the Receptor(s) of concern under normal operating conditions;

(ii) Records documenting all activities to maintain the system, including replacing, recharging, removing or disposing of spent media, and the results of any confirmatory testing of drinking water samples shall be maintained and made available to the Department upon request;

(iii) In the event of any suspension or failure of the Active Exposure Pathway Mitigation Measure, immediate steps shall be taken to return the Active Exposure Pathway Mitigation Measure to full operating condition;

(iv) If such suspension or failure of the system lasts 30 or more consecutive days, written notice shall be provided to both Department of Environmental Protection and any non-transient building occupant who may have experienced exposure to oil and/or hazardous material as the result of the system failure or suspension on the 30th day from the start of the suspension or failure period; this notice shall document the reason for the suspension or failure of the system, any efforts taken to resume operation of such Measures, and the expected timeframe for resuming operation of such Measure; and

(vi) .])

4. Proposed Changes in Activities and Uses. Any proposed changes in activities and uses at the [Property] [Portion of the Property] which may result in higher levels of exposure to oil and/or hazardous material than currently exist shall be evaluated by a Licensed Site Professional who shall render an Opinion, in accordance with 310 CMR 40.1080, as to whether the proposed changes (select one) [are inconsistent with maintaining a Permanent Solution and a condition of No Significant Risk] [are inconsistent with maintaining a Temporary Solution and a condition of No Substantial Hazard] [are inconsistent with maintaining Remedy Operation Status and a condition of No Substantial Hazard]. Any and all requirements set forth in the Opinion to meet the objective of this Notice shall be satisfied before any such activity or use is commenced.

5. Violation of a Permanent or Temporary Solution. The activities, uses and/or exposures upon which this Notice is based shall not change at any time to cause a significant risk of harm to health, safety, public welfare, or the environment or to create substantial hazards due to exposure to oil and/or hazardous material without the prior evaluation by a Licensed Site Professional in accordance with 310 CMR 40.1080, and without additional response actions, if necessary, to maintain a condition of (select one) [No Significant Risk] [No Substantial Hazard].

If the activities, uses, and/or exposures upon which this Notice is based change without the prior evaluation and additional response actions determined to be necessary by a Licensed Site Professional in accordance with 310 CMR 40.1080, the owner or operator of the [Property] [Portion of the Property] subject to this Notice at the time that the activities, uses and/or exposures change, shall comply with the requirements set forth in 310 CMR 40.0020.

6. Incorporation Into Deeds, Mortgages, Leases, and Instruments of Transfer. This Notice shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer, whereby an interest in and/or a right to use the Property or a portion thereof is conveyed in accordance with 310 CMR 40.1074(5).

Owner hereby authorizes and consents to the filing and recordation and/or registration of this [Confirmatory] Notice, said [Confirmatory] Notice to become effective when executed under seal by the undersigned Licensed Site Professional, and recorded and/or registered with the appropriate Registry(ies) of Deeds and/or Land Registration Office(s).

[This Confirmatory Notice of Activity and Use Limitation is given to correct the inadvertent error(s) made in the Notice of Activity and Use Limitation dated _____, and recorded with the _____ Registry of Deeds in Book _____, Page _____, said error(s) being as follows:

- (i) ;
- (ii) ; and
- (iii) .

In all other respects the terms of the Notice of Activity and Use Limitation remain unchanged.]

WITNESS the execution hereof under seal this _____ day of _____, 20_____.

[Name of Owner]

Form 1075: continued

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF_____]

_____, ss _____, 20__

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership, and described in Exhibit D)
(as _____ for _____, a corporation, and described in Exhibit D)
(as attorney in fact for _____, the principal, and described in Exhibit D)
(as _____ for _____, (a) (the) _____, and described in Exhibit D)

_____ (official signature and seal of notary)

The undersigned Licensed Site Professional hereby certifies that in [his][her] Opinion this [Confirmatory] Notice of Activity and Use Limitation is consistent with (select one) [a Permanent Solution and maintaining a condition of No Significant Risk][a Temporary Solution and maintaining a condition of No Substantial Hazard][Remedy Operation Status and a condition of No Substantial Hazard].

Date: _____

[Name of Licensed Site Professional]
[Licensed Site Professional SEAL]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF_____]

_____, ss _____, 20__

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

Upon recording, return to:

(Name and Address of Owner)

Form 1082A

[FIRST] AMENDMENT TO GRANT OF ENVIRONMENTAL RESTRICTION

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: _____

DEP Release Tracking No.(s): _____

WHEREAS, a Grant of Environmental Restriction from _____ of _____(Town/City), _____ County, _____ (State), to the Department of Environmental Protection, an agency established under the laws of the Commonwealth of Massachusetts, having its principal office at One Winter Street, Boston, Massachusetts 02108 ("DEP"), dated _____, has been recorded with the _____ Registry of Deeds in Book _____, Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____; [Said Grant was previously amended by an Amendment to Grant of Environmental Restriction dated _____, recorded with the _____ Registry of Deeds in Book _____ Page _____ and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____] (said Grant of Environmental Restriction and any amendments thereto are collectively referred to herein as "Grant");

WHEREAS, said Grant imposes certain restrictions on activities and uses, conditions, obligations and easements upon that certain parcel(s) of [vacant] land situated in _____ (Town/City), _____ County, Massachusetts [with the buildings and improvements thereon];

WHEREAS, said parcel of land is more particularly bounded and described in Exhibit A attached hereto and made a part hereof ("Property");

WHEREAS, said restrictions, conditions, obligations and easements are imposed upon the Property to maintain a condition of No Significant Risk (said condition being defined in 310 CMR 40.0000) in accordance with the terms of an Activity and Use Limitation Opinion ("AUL Opinion") dated _____, issued and signed by _____, holder of a valid license issued by the Board of Registration of Waste Site Cleanup Professionals pursuant to Massachusetts General Laws Chapter 21A, Sections 19-19J (the holder of such a license referred to as an "LSP") attached to said Grant of Environmental Restriction as Exhibit C and made a part thereof, in order to (select one) [maintain at the Property a condition of No Significant Risk] [eliminate a substantial hazard] (such conditions and terms being defined in 310 CMR 40.0000); and

(Select one of the following paragraphs)

[WHEREAS, the undersigned LSP, in accordance with Chapter 21E and the MCP, has issued and signed an AUL Opinion, dated _____, attached hereto as Exhibit B and made a part hereof. Said AUL Opinion explains that the implementation of the following proposed changes in Site Activity and Use at the Property will maintain a condition of No Significant Risk, as all response actions necessary to achieve such condition have been performed;]

[WHEREAS, the undersigned LSP, in accordance with Chapter 21E and the MCP, has issued and signed an AUL Opinion, dated _____, attached hereto as Exhibit B and made a part hereof. Said AUL Opinion explains that the implementation of the following proposed changes in Site Activity and Use at the Property will: (1) (select one) [maintain a condition of No Significant Risk at the Property][eliminate a substantial hazard]; and (2) that no additional response actions are necessary at the Property in connection with the implementation of said proposed changes;]

NOW, THEREFORE, in accordance with Chapter 21E and the MCP, the undersigned _____, of _____ (Town/City), _____ County, _____ (State), being the owner of the Property pursuant to [a deed recorded with the _____ Registry of Deeds in Book _____, Page _____]; [source of title other than by deed]; and/or [Certificate of Title No. _____ issued by the Land Registration Office of the _____ Registry District], hereby amends said Grant as follows:

Form 1082A: continued

(Select as appropriate)

[Paragraph 1, "Restricted Uses and Activities", is amended to read as follows:]

[Paragraph 2, "Permitted Uses and Activities", is amended to read as follows:]

[Paragraph 3, "Obligations and Conditions", is amended to read as follows:]

In all other respects the provisions of said Grant remain unchanged.

This [First] Amendment to the said Grant shall become effective when executed under seal by the undersigned LSP, approved (as to its form) by the Commissioner of the Department of Environmental Protection, and recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office.

WITNESS the execution hereof under seal this _____ day of _____, 20____.

[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20____

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

The undersigned Waste Site Cleanup Professional hereby certifies that [he][she] executed the AUL Opinion dated ____ and filed with the Department of Environmental Protection under Release Tracking No.(s)_____, attached hereto as Exhibit B and made a part hereof, and that in [his][her] Opinion this [First] Amendment to said Grant is consistent with the terms of said AUL Opinion.

Date:_____ _____
[Name of LSP]
[LSP SEAL]

Form 1082A: continued

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20__

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

In accordance with Massachusetts General Laws Chapter 21E, § 6, and the Massachusetts Contingency Plan, 310 CMR 40.0000, the Commissioner of the Department of Environmental Protection hereby approves this [First] Amendment to said Grant (as to form only).

Date: _____

Commissioner
Department of Environmental
Protection

Upon recording, return to:
Department of Environmental Protection
One Winter Street
Boston, MA 02108

Form 1082B

[CONFIRMATORY] [FIRST] AMENDMENT TO NOTICE OF ACTIVITY AND USE LIMITATION
M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: _____

DEP Release Tracking No.(s): _____

WHEREAS, a Notice of Activity and Use Limitation has been recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No._____. [Said Notice of Activity and Use Limitation was previously amended by an Amendment to a Notice of Activity and Use Limitation dated _____, recorded with the _____ Registry of Deeds in Book _____ Page _____ and/or registered with the Land Registration Office of the _____ Registry District as Document No._____] (said Notice of Activity and Use Limitation and any amendments thereto are collectively referred to herein as "Notice");

WHEREAS, said Notice sets forth limitations on use and activities, conditions and obligations affecting certain [vacant] parcel(s) of land situated in _____ (Town/City), _____ County, Massachusetts [with the buildings and improvements thereon], said land being more particularly bounded and described in Exhibit A attached hereto and made a part hereof ("Property"). Said limitations on use and activities are consistent with the terms of (select one) [maintaining a Permanent Solution and a condition of No Significant Risk] [maintaining a Temporary Solution and a condition of No Substantial Hazard] [maintaining Remedy Operation Status and a condition of No Substantial Hazard] (such conditions and terms being defined in 310 CMR 40.0000); and

[WHEREAS, the undersigned Licensed Site Professional, in accordance with M.G.L. c. 21E and the MCP opines that the implementation of the following proposed changes in Site Activities and Uses at the Property will (select one)[maintain a Permanent Solution and condition of No Significant Risk][maintain a Temporary Solution and condition of No Substantial Hazard][maintain Remedy Operation Status and a condition of No Substantial Hazard];

(Select as appropriate the paragraph or paragraphs that are amended from the original Notice of Activity and Use Limitation)

[Paragraph 1, "Activities and Uses Consistent with (select one)[Maintaining No Significant Risk] [No Substantial Hazard Conditions]", is amended to read as follows:]

[Paragraph 2, "Activities and Uses Inconsistent with (select one)[Maintaining No Significant Risk][No Substantial Hazard] Conditions", is amended to read as follows:]

[Paragraph 3, "Obligations and Conditions", is amended to read as follows:]

NOW THEREFORE, in accordance with M.G.L. c. 21E and the MCP, the undersigned _____, of _____ (Town/City), _____ County, _____ (State), being the owner of the Property pursuant to [a deed recorded with the _____ Registry of Deeds in Book _____, Page _____]; [source of title other than by deed]; and/or [Certificate of Title No. _____, issued by the Land Registration Office of the _____ Registry District], hereby amends said Notice as follows:

(In Paragraphs 4, 5 and 6, provide complete list that includes both amended conditions and conditions that remain unchanged from the original Notice of Activity and Use Limitation.)

[Paragraph 4, "Activities and Uses Consistent with Maintaining No Significant Risk or No Substantial Hazard Conditions" :]

[Paragraph 5, " Activities and Uses Inconsistent with Maintaining No Significant Risk or No Substantial Hazard Conditions ":]

[Paragraph 6, "Obligations and Conditions":]

In all other respects the provisions of said Notice remain unchanged.

(Owner) authorizes and consents to the filing and recordation/and or registration of this [Confirmatory] [First] Amendment to Notice of Activity and Use Limitation, said [Confirmatory] [First] Amendment to become effective when executed under seal by the undersigned Licensed Site Professional and recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office.

Form 1082B: continued

[This Confirmatory [First] Amendment to Notice of Activity and Use Limitation is given to correct the inadvertent error(s) made in the [First] Amendment to Notice of Activity and Use Limitation dated _____, and recorded with the _____ Registry of Deeds in Book _____, Page _____, said error(s) being as follows:

- (i) ;
- (ii) ; and
- (iii) .

In all other respects the terms of the [First] Amendment to Notice of Activity and Use Limitation remain unchanged.]

WITNESS the execution hereof under seal this ____ day of _____, 20__.

[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20 __

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

- (as partner for _____, a partnership, and described in Exhibit D)
- (as _____ for _____, a corporation, and described in Exhibit D)
- (as attorney in fact for _____, the principal, and described in Exhibit D)
- (as _____ for _____, (a) (the) _____, and described in Exhibit D)

_____ (official signature and seal of notary)

The undersigned Licensed Site Professional hereby certifies that in [his][her] Opinion, this [Confirmatory] [First] Amendment to Notice of Activity and Use Limitation is consistent with (select one) [a Permanent Solution and maintaining a condition of No Significant Risk][a Temporary Solution and maintaining a condition of No Substantial Hazard][Remedy Operation Status and maintaining a condition of No Substantial Hazard].

Date: _____

[Name of Licensed Site Professional]
[Licensed Site Professional SEAL]

Form 1082B: continued

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20 __

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

Upon recording, return to:

(Name and Address of Owner)

Form 1083A

PARTIAL RELEASE OF GRANT OF ENVIRONMENTAL RESTRICTION

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: _____

DEP Release Tracking No.(s) _____

WHEREAS, a Grant of Environmental Restriction from _____ of _____ (Town/City), _____ County, _____ (State), to the Department of Environmental Protection, an agency established under the laws of the Commonwealth of Massachusetts, having its principal office at One Winter Street, Boston, Massachusetts 02108 ("DEP"), dated _____, has been recorded with the _____ Registry of Deeds in Book _____, Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____; [as amended by an Amendment to Grant of Environmental Restriction dated _____, recorded with the _____ Registry of Deeds in Book _____, Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____;] (said Grant of Environmental Restriction and any amendments thereto are collectively referred to herein as "Grant");

WHEREAS, said Grant imposes certain restrictions on activities and uses, conditions, obligations and easements upon certain [vacant] land situated in _____, _____ County, Massachusetts [with the buildings and improvements thereon], said land being more particularly bounded and described in Exhibit A attached hereto and made a part hereof ("Property");

WHEREAS, said restrictions, conditions, obligations and easements are imposed upon the Property to (select one) [maintain a condition of No Significant Risk] [eliminate a substantial hazard] (said conditions and terms being defined in 310 CMR 40.0000) in accordance with the terms of an Activity and Use Limitation Opinion ("AUL Opinion") dated _____, issued and signed by _____, holder of a valid license issued by the Board of Registration of Waste Site Cleanup Professionals pursuant to M.G.L. c. 21A, §§ 19 through 19J (said holder being referred to as an "LSP"). Said AUL Opinion was issued and filed with DEP at its _____ Regional Office under Release Tracking No.(s) _____, a copy of which is attached to said Grant of Environmental Restriction as Exhibit C, and made a part thereof;

WHEREAS, the undersigned, _____, being an LSP, has issued an AUL Opinion in accordance with 310 CMR 40.0000, dated _____, a copy of which is attached hereto as Exhibit B and made a part hereof. Said AUL Opinion explains why the restrictions, conditions, obligations and easements created under said Grant are no longer necessary (select one) [to maintain a condition of No Significant Risk] [to eliminate a substantial hazard] at a portion of said Property, said portion being more particularly bounded and described in Exhibit C, attached hereto and made a part hereof, and being shown on [a plan recorded with the _____ Registry of Deeds in Plan Book _____, Plan _____], and/or on [a sketch plan attached hereto and filed herewith for registration] ("Portion of the Property"), and accordingly, said Grant may be released as to said Portion of the Property; and

WHEREAS, said [Name of LSP], has certified that [he][she] executed the AUL Opinion attached hereto as Exhibit B, and that in [his][her] Opinion, this Partial Release of Grant of Environmental Restriction is consistent with said AUL Opinion.

NOW THEREFORE, in accordance with M.G.L. c. 21E, § 6 and 310 CMR 40.0000, the undersigned _____, being the Commissioner of DEP, does hereby release, abandon and forever discharge the restrictions on activity and use, conditions, obligations and easements imposed upon said Portion of the Property under said Grant.

This Partial Release of Grant of Environmental Restriction shall become effective upon its recordation and/or registration with the appropriate Registry of Deeds and/or Land Registration Office.

Form 1083A: continued

WITNESS the execution hereof under seal this _____ day of _____, 20__.

Commissioner

Department of Environmental Protection

The undersigned LSP hereby certifies that [he][she] executed the AUL Opinion dated _____, attached hereto as Exhibit B and made a part hereof, and that in [his][her] Opinion, this Partial Release of Grant of Environmental Restriction is consistent with said AUL Opinion.

Date: _____

[Name of LSP]
[LSP SEAL]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20 __

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

Upon recording, return to:

(Name and Address of Owner)

Form 1083B

[CONFIRMATORY] PARTIAL TERMINATION OF NOTICE OF ACTIVITY AND USE LIMITATION
M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: _____
DEP Release Tracking No.(s) _____

WHEREAS, a Notice of Activity and Use Limitation has been recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____ [as amended by an Amendment to Notice of Activity and Use Limitation dated _____, recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____] (said Notice of Activity and Use Limitation and any amendments thereto are collectively referred to herein as "Notice");

WHEREAS, said Notice sets forth limitations on use and activities, conditions and obligations affecting certain [vacant] land situated in _____ (Town/City), _____ County, Massachusetts [with the buildings and improvements thereon], said land being more particularly bounded and described in Exhibit A attached hereto and made a part hereof ("Property");

WHEREAS, the undersigned, _____, being a Licensed Site Professional, opines that the limitations on activities and uses, conditions and obligations set forth in said Notice are no longer necessary to (select one) [maintain a condition of No Significant Risk] [maintain a condition of No Substantial Hazard] at a portion of said Property, said portion being more particularly bounded and described in Exhibit A-1, attached hereto and made a part hereof, and being shown on [a plan recorded with the _____ Registry of Deeds in Plan Book _____, Plan _____]; and/or on [a sketch plan attached hereto and filed herewith for registration] ("Portion of the Property"), and accordingly, said Notice may be terminated as to said Portion of the Property;

WHEREAS, said Notice is being partially terminated because the limitations on activities and uses, conditions and obligations set forth in said Notice are no longer necessary to meet the requirements of 310 CMR 40.0000 as to said Portion of the Property.

NOW, THEREFORE, I/We of _____ (City/Town) _____ County, _____ (State), being the owner(s) of said Property, do hereby partially terminate said Notice.

[This Confirmatory Partial Termination of Notice of Activity and Use Limitation is given to correct the inadvertent error(s) made in the Partial Termination of Notice of Activity and Use Limitation dated _____, and recorded with the _____ Registry of Deeds in Book _____, Page _____, said error(s) being as follows:

- (i) _____ ;
- (ii) _____ ; and
- (iii) _____ .]

In all other respects the terms of the Partial Termination of Notice of Activity and Use Limitation remain unchanged.

[(Owner) authorizes and consents to the filing and recordation of this Confirmatory Partial Termination of Notice of Activity and Use Limitation, said Confirmatory Partial Termination to become effective when executed under seal by the undersigned Licensed Site Professional and recorded with the appropriate Registry of Deeds.]

[(Owner) authorizes and consents to the filing and recordation/and or registration of this Partial Termination of Notice of Activity and Use Limitation, said Partial Termination to become effective when executed under seal by the undersigned Licensed Site Professional and recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office.]

Form 1083B: continued

WITNESS the execution hereof under seal this ____ day of _____, 20__.

[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20 __

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership, and described in Exhibit D)
(as _____ for _____, a corporation, and described in Exhibit D)
(as attorney in fact for _____, the principal, and described in Exhibit D)
(as _____ for _____, (a) (the) _____, and described in Exhibit D)

_____ (official signature and seal of notary)

[The undersigned Licensed Site Professional hereby certifies that this [Confirmatory] Partial Termination of Notice of Activity and Use Limitation is consistent with (select one) [a Permanent Solution and maintaining a condition of No Significant Risk][a Temporary Solution and maintaining a condition of No Substantial Hazard] [Remedy Operation Status and maintaining a condition of No Substantial Hazard].

Date: _____

[Name of Licensed Site Professional]
[Licensed Site Professional SEAL]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20 __

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

Upon recording, return to:

(Name and Address of Owner)

Form 1084A

RELEASE OF GRANT OF ENVIRONMENTAL RESTRICTION
M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: _____
DEP Release Tracking No.(s) _____

WHEREAS, a Grant of Environmental Restriction from _____ of _____ (Town/City), _____ County, _____ (State), to the Department of Environmental Protection, an agency established under the laws of the Commonwealth of Massachusetts, having its principal office at One Winter Street, Boston, Massachusetts 02108 ("DEP"), dated _____, has been recorded with the _____ Registry of Deeds in Book _____, Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____; [as amended by an Amendment to Grant of Environmental Restriction dated _____, recorded with the _____ Registry of Deeds in Book _____, Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____;] (said Grant of Environmental Restriction and any amendments thereto are collectively referred to herein as "Grant");

WHEREAS, said Grant imposes certain restrictions on activities and uses, conditions, obligations and easements upon certain [vacant] land situated in _____, _____ County, Massachusetts [with the buildings and improvements thereon], said land being more particularly bounded and described in Exhibit A attached hereto and made a part hereof ("Property");

WHEREAS, said restrictions, conditions, obligations and easements were imposed upon the Property to (select one) [maintain a condition of No Significant Risk] [eliminate a substantial hazard] (said conditions and terms being defined in 310 CMR 40.0000) in accordance with the terms of an Activity and Use Limitation Opinion ("AUL Opinion") dated _____, issued and signed by _____, holder of a valid license issued by the Board of Registration of Waste Site Cleanup Professionals pursuant to M.G.L. c. 21A, §§ 19 through 19J (said holder being referred to as an "LSP"). Said AUL Opinion was issued and filed with DEP at its _____ Regional Office under Release Tracking No.(s) _____, a copy of which is attached to said Grant of Environmental Restriction as Exhibit C, and made a part thereof;

WHEREAS, the undersigned, _____, being an LSP, has issued an AUL Opinion in accordance with 310 CMR 40.0000, dated _____, a copy of which is attached hereto as Exhibit B and made a part hereof. Said AUL Opinion explains why the restrictions, conditions, obligations and easements created under said Grant are no longer necessary (select one) [to maintain a condition of No Significant Risk at the Property] [to eliminate a substantial hazard] and accordingly, said Grant may be released; and

NOW THEREFORE, in accordance with M.G.L. c. 21E, § 6 and 310 CMR 40.0000, the undersigned _____, being the Commissioner of DEP, does hereby release, abandon and forever discharge the restrictions on activity and use, conditions, obligations and easements imposed upon the Property under said Grant.

This Release of Grant of Environmental Restriction shall become effective upon its recordation and/or registration with the appropriate Registry of Deeds and/or Land Registration Office.

WITNESS the execution hereof under seal this _____ day of _____, 20__.

Commissioner

Department of Environmental

Protection

Form 1084A: continued

The undersigned LSP hereby certifies that [he][she] executed the AUL Opinion dated _____, attached hereto as Exhibit B and made a part hereof, and that in [his][her] Opinion, this Release of Grant of Environmental Restriction is consistent with said AUL Opinion.

Date:_____

[Name of LSP]
[LSP SEAL]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20 __

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

Upon recording, return to:

(Name and Address of Owner)

Form 1084B

[CONFIRMATORY] TERMINATION OF NOTICE OF ACTIVITY AND USE LIMITATION

M.G.L. c. 21E, § 6 and 310 CMR 40.0000 (310 CMR 40.1083(1)(a))

Form 1084B Is Used When the Notice of Activity and Use Limitation Is No Longer
Required to Meet the Requirements of 310 CMR 40.0000

Disposal Site Name: _____
DEP Release Tracking No.(s) _____

WHEREAS, a Notice of Activity and Use Limitation has been recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____ [as amended by Amendment to a Notice of Activity and Use Limitation dated _____, recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____] (said Notice of Activity and Use Limitation and any amendments thereto are collectively referred to herein as "Notice");

WHEREAS, said Notice sets forth limitations on use and activities, conditions and obligations affecting certain [vacant] land situated in _____ (Town/City), _____ County, Massachusetts [with the buildings and improvements thereon], said land being more particularly bounded and described in Exhibit A attached hereto and made a part hereof ("Property");

WHEREAS, the undersigned, _____, being a Licensed Site Professional, opines that the limitations on activities and uses, conditions and obligations set forth in said Notice are no longer necessary to (select one) [maintain a condition of No Significant Risk] [maintain a condition of No Substantial Hazard] at the Property, and accordingly, said Notice may be terminated;

WHEREAS, said Notice is being terminated because the limitations on activities and uses, conditions and obligations set forth in said Notice are no longer necessary to meet the requirements of 310 CMR 40.0000 at the Property.

NOW, THEREFORE, I/We of _____ (City/Town) _____ County, _____ (State), being the owner(s) of said Property, do hereby terminate said Notice.

[This Confirmatory Termination of Notice of Activity and Use Limitation is given to correct the inadvertent error(s) made in the Termination of Notice of Activity and Use Limitation dated _____, and recorded with the _____ Registry of Deeds in Book _____, Page _____, said error(s) being as follows:

- (i) _____ ;
- (ii) _____ ; and
- (iii) _____ .]

In all other respects the terms of the Termination of Notice of Activity and Use Limitation remain unchanged.

(_____ Owner _____) authorizes and consents to the filing and recordation of this Confirmatory Termination of Notice of Activity and Use Limitation, said Confirmatory Termination to become effective when executed under seal by the undersigned Licensed Site Professional and recorded with the appropriate Registry of Deeds.]

[(_____ Owner _____) authorizes and consents to the filing and recordation and/or registration of this Termination of Notice of Activity and Use Limitation, said Termination to become effective when executed under seal by the undersigned Licensed Site Professional and recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office.]

WITNESS the execution hereof under seal this _____ day of _____, 20____.

Name of Owner]

Form 1084B: continued

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20__

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership, and described in Exhibit D)
(as _____ for _____, a corporation, and described in Exhibit D)
(as attorney in fact for _____, the principal, and described in Exhibit D)
(as _____ for _____, (a) (the) _____, and described in Exhibit D)

_____ (official signature and seal of notary)

The undersigned Licensed Site Professional hereby certifies that this [Confirmatory] Termination of Notice of Activity and Use Limitation is consistent with [a Permanent Solution and maintaining a condition of No Significant Risk][a Temporary Solution and maintaining a condition of No Substantial Hazard][Remedy Operation Status and maintaining a condition of No Substantial Hazard].

Date: _____

[Name of Licensed Site Professional]
[Licensed Site Professional SEAL]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 19 __

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

Upon recording, return to:

(Name and Address of Owner)

Form 1084C

[CONFIRMATORY] TERMINATION OF NOTICE OF ACTIVITY AND USE LIMITATION

M.G.L. c. 21E, § 6 and 310 CMR 40.0000 (310 CMR 40.1083(1)(b))

Form 1084C Is Used When the Notice of Activity and Use Limitation Is Being Substituted
by a New Notice of Activity and Use Limitation

Disposal Site Name: _____

DEP Release Tracking No.(s) _____

WHEREAS, a Notice of Activity and Use Limitation has been recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____ [as amended by Amendment to a Notice of Activity and Use Limitation dated _____, recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____] (said Notice of Activity and Use Limitation and any amendments thereto are collectively referred to herein as "Notice");

WHEREAS, said Notice sets forth limitations on use and activities, conditions and obligations affecting certain [vacant] land situated in _____ (Town/City), _____ County, Massachusetts [with the buildings and improvements thereon], said land being more particularly bounded and described in Exhibit A attached hereto and made a part hereof ("Property");

WHEREAS, said Notice is being terminated so that it may be substituted with the Notice of Activity and Use Limitation given by _____, dated _____, and recorded and/or registered immediately hereinafter;

NOW, THEREFORE, I/We, of _____ of _____ (City/Town) _____ County, _____ (State), being the owner(s) of said Property, do hereby terminate said Notice and substitute the same with the Notice of Activity and Use Limitation given by _____, dated _____, and recorded and/or registered immediately hereinafter.

[This Confirmatory Termination of Notice of Activity and Use Limitation is given to correct the inadvertent error(s) made in the Termination of Notice of Activity and Use Limitation dated _____, and recorded with the _____ Registry of Deeds in Book _____, Page _____, said error(s) being as follows:

- (i) _____ ;
- (ii) _____ ; and
- (iii) _____ .

In all other respects the terms of the Termination of Notice of Activity and Use Limitation remain unchanged.

[(____ Owner____) authorizes and consents to the filing and recordation of this Confirmatory Termination of Notice of Activity and Use Limitation, said Confirmatory Termination to become effective when recorded with the appropriate Registry of Deeds.]

Form 1084C: continued

[(Owner)] authorizes and consents to the filing and recordation/and or registration of this Termination of Notice of Activity and Use Limitation, said Termination to become effective when recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office.]

WITNESS the execution hereof under seal this ____ day of _____, 20__.

[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20 __

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership, and described in Exhibit D)
(as _____ for _____, a corporation, and described in Exhibit D)
(as attorney in fact for _____, the principal, and described in Exhibit D)
(as _____ for _____, (a) (the) _____, and described in Exhibit D)

_____ (official signature and seal of notary)

Upon recording, return to:

(Name and Address of Owner)

Form 1084D

TERMINATION OF NOTICE OF ACTIVITY AND USE LIMITATION

M.G.L. c. 21E, § 6, 310 CMR 40.0000

Form 1084D Is Used When Additional Response Actions Are Necessary
to Support a Permanent or Temporary Solution

Disposal Site Name: _____
DEP Release Tracking No.(s) _____

WHEREAS, a Notice of Activity and Use Limitation has been recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____ [as amended by an Amendment to a Notice of Activity and Use Limitation dated _____, recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____] (said Notice of Activity and Use Limitation and any amendments thereto are collectively referred to herein as "Notice");

WHEREAS, said Notice sets forth limitations on use and activities, conditions, and obligations affecting certain [vacant] land situated in _____ (Town/City), _____ County, Massachusetts [with the buildings and improvements thereon], said land being more particularly bounded and described in Exhibit A attached hereto and made a part hereof ("Property");

WHEREAS, said Notice is being terminated because additional response actions are necessary to support the conclusion that [a condition of No Significant Risk has been achieved at the Property][a condition of No Substantial Hazard has been achieved at the Property].

NOW, THEREFORE, I/We of _____ (City/Town) _____ County, _____ (State), being the owner(s) of said Property, do hereby terminate said Notice.

(_____ Owner _____) authorizes and consents to the filing and recordation and/or registration of this Termination of Notice of Activity and Use Limitation, said Termination to become effective when recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office.]

WITNESS the execution hereof under seal this ____ day of _____, 20__.

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

[Name of Owner]

_____, ss _____, 20__

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership, and described in Exhibit D)
(as _____ for _____, a corporation, and described in Exhibit D)
(as attorney in fact for _____, the principal, and described in Exhibit D)
(as _____ for _____, (a) (the) _____, and described in Exhibit D)

_____ (official signature and seal of notary)

Upon recording, return to:

(Name and Address of Owner)

Form 1084E

RELEASE OF GRANT OF ENVIRONMENTAL RESTRICTION
M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: _____
DEP Release Tracking No.(s) _____

WHEREAS, a Grant of Environmental Restriction from _____ of _____(Town/City), _____(County), _____(State), to the Department of Environmental Protection, an agency established under the laws of the Commonwealth of Massachusetts, having its principal office at One Winter Street, Boston, Massachusetts 02108 ("DEP"), dated _____, has been recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____ [as amended by Amendment to a Notice of Activity and Use Limitation dated _____, recorded with the _____ Registry of Deeds in Book _____ Page _____, and/or registered with the Land Registration Office of the _____ Registry District as Document No. _____] (said Grant of Environmental Restriction and any amendments thereto are collectively referred to herein as "Grant");

WHEREAS, said Grant imposes certain restrictions on activities and uses, conditions, obligations and easements upon certain [vacant] land situated in _____ (Town/City), _____ County, Massachusetts [with the buildings and improvements thereon], said land being more particularly bounded and described in Exhibit A attached hereto and made a part hereof ("Property");

WHEREAS, said restrictions, conditions, obligations and easements were imposed upon the Property in order to [maintain a condition of No Significant Risk] [eliminate a Substantial Hazard] (said conditions and terms being defined in 310 CMR 40.0000) in accordance with the terms of an Activity and Use Limitation Opinion ("AUL Opinion") dated _____, signed and sealed by _____, holder of a valid license issued by the Board of Registration of Waste Site Cleanup Professionals, pursuant to M.G.L. c. 21A, §§ 19 through 19J (the holder being referred to as "LSP") attached to said Grant as Exhibit C and made a part thereof; and

WHEREAS, said Grant is being released because additional response actions are necessary to support the conclusion that [a condition of No Significant Risk has been achieved at the Property][all Substantial Hazards have been eliminated at the Property].

NOW, THEREFORE, in accordance with M.G.L c. 21E, § 6 and 310 CMR 40.0000, the undersigned _____, being the Commissioner of DEP, does hereby release, abandon and forever discharge the restrictions on activity and use, conditions, obligations and easements imposed upon the Property under said Grant. This Release of Grant of Environmental Restriction shall become effective upon its recordation and/or registration with the appropriate Registry of Deeds and/or Land Registration Office.

WITNESS the execution hereof under seal this ____ day of _____, 20____.

[Commissioner, Department
of Environmental Protection]

Form 1084E: continued

[COMMONWEALTH OF MASSACHUSETTS]
[STATE OF _____]

_____, ss _____, 20 __

On this ____ day of _____, 20__, before me, the undersigned notary public, personally appeared _____ (name of document signer), proved to me through satisfactory evidence of identification, which were _____, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(as partner for _____, a partnership)
(as _____ for _____, a corporation)
(as attorney in fact for _____, the principal)
(as _____ for _____, (a) (the) _____)

_____ (official signature and seal of notary)

Upon recording, return to:

(Name and Address of Owner)

SUBPART K: AUDITS

40.1101: Purpose, Scope and Applicability

- (1) The regulations published at 310 CMR 40.1101 through 40.1199, collectively referred to as 310 CMR 40.1100, establish procedures for the Department to audit a sufficient number of response actions not overseen or conducted by the Department to ensure that those response actions are performed in compliance with M.G.L. c. 21E, 310 CMR 40.0000, and any other requirement applicable to such response actions.
- (2) During each fiscal year, the Department shall audit a statistically significant number of all sites, as determined by the Department, for which annual compliance assurance fees are required to be paid pursuant to M.G.L. c. 21E, § 3B. The Department may establish additional audit targets for categories of persons, response actions or sites based on the level of Department oversight provided to each category.
- (3) In its audit of any response action submittal, the Department shall base its finding of any violation or assessment of a penalty on the Massachusetts Contingency Plan and Response Action Performance Standard in effect at the time of its receipt of the submittal.

40.1110: Selection of Persons, Response Actions and Sites for Audit

- (1) The Department may conduct an audit of any RP, PRP, Other Person, response action or site in accordance with 310 CMR 40.1100. The Department selects persons, response actions and sites for audit randomly (Random Audits) and by criteria-specific methods (Targeted Audits).
- (2) Except as provided in 310 CMR 40.1110(3) and (4), the Department may initiate an audit of any specific RP, PRP, Other Person, response action or site without any limitation as to time.
- (3) Except as provided in 310 CMR 40.1110(5), the Department shall not initiate a Random Audit with respect to any specific person, response action or site after two years has passed since the date of the Department's receipt of:
 - (a) a Permanent Solution Statement; or
 - (b) an LSP Evaluation Opinion stating that the requirements for a Permanent Solution have been achieved from such person and/or pertinent to such response action and/or site. Except as expressly provided by 310 CMR 40.1110(4), (3•) shall not be construed to limit the Department's authority to initiate a Targeted Audit of any person, response action or site.
- (4) Except as provided in 310 CMR 40.1110(5), the Department shall not initiate a Targeted Audit of any RP, PRP, Other Person, response action or site after five years has passed since the date of the Department's receipt of a Permanent Solution Statement from such person and/or pertinent to such response action and/or site, unless the Department has reason to believe that:
 - (a) response actions taken at a site may have failed to achieve or maintain a level of No Significant Risk;
 - (b) a significant risk of harm to health, safety, public welfare or the environment may exist at a site, or in the vicinity of a site, for which a Permanent Solution Statement has been submitted to the Department;
 - (c) a response action has been taken at a site in noncompliance with M.G.L. c. 21E, 310 CMR 40.0000 or any other applicable requirement;
 - (d) the Permanent Solution Statement has failed to identify material facts, data, or other information known by the LSP who rendered the Permanent Solution Statement or by the person who undertook response actions at a site;
 - (e) the person responsible for undertaking response actions at a site has failed to fully respond to a Request for Information;
 - (f) the activities, uses and/or exposures upon which a Permanent Solution Statement is based have changed to cause human or ecological exposure, or cause an increased potential for human or environmental exposure, to oil and/or hazardous material;
 - (g) any person required by 310 CMR 40.0014 to retain documents pertinent to the Permanent Solution Statement has failed to do so;

40.1110: continued

- (h) any person required by 310 CMR 40.0800 to perform operation and maintenance and monitoring activities at the site has failed to do so;
- (i) any person undertaking, performing, managing, supervising or overseeing response actions at the site has engaged in a pattern of noncompliance, considering the criteria set forth in 310 CMR 5.13: *Pattern of Noncompliance*;
- (j) any person responsible for undertaking response actions at a disposal site has violated, suffered, allowed or caused any person to violate an Environmental Restriction; or
- (k) any change in activity, use and/or exposure upon which a Permanent Solution Statement is based occurred at a disposal site without an evaluation by an LSP in accordance with 310 CMR 40.1080 and without additional response actions, if necessary.

(5) Notwithstanding any provision in 310 CMR 40.1110(3) or (4), the Department may initiate, at any time, a Random or Targeted Audit of any site subject to an Activity and Use Limitation.

40.1120 Audit Activities

- (1) During an audit, the Department may do the following:
 - (a) examine documents within the Department's records;
 - (b) request that the person who has performed the response action provide a written explanation, or other supporting evidence, to demonstrate compliance with M.G.L. c. 21E, 310 CMR 40.0000, and other applicable requirements;
 - (c) request that the person who has performed the response action that is the subject of the audit appear at one of the Department's offices to discuss response actions and provide supporting evidence to demonstrate compliance with M.G.L. c. 21E, 310 CMR 40.0000, and other applicable requirements;
 - (d) enter and inspect a site or other location to determine whether an RP, PRP, Other Person, response action or site is in compliance with M.G.L. c. 21E, 310 CMR 40.0000, and other applicable requirements;
 - (e) investigate, take samples at a site and inspect records, conditions, equipment or practices material to the response action or property related to the site; and
 - (f) take any other actions the Department deems necessary to determine whether response actions have been performed in compliance with M.G.L. c. 21E, 310 CMR 40.0000, and other applicable requirements.
- (2) Any person requested to appear for an interview may be represented by an attorney, Licensed Site Professional or other representative.

40.1130: Initiation of Audit

Prior to undertaking an audit activity other than an examination of documents within the Department's records, or within other public records, the Department shall provide reasonable Notice of Audit to the person who has performed response actions at the site that the site has been selected for audit. Such notice shall include the following information:

- (1) the name and location of the site;
- (2) the Release Tracking Number(s);
- (3) the scope of the audit and the type of audit activities to be performed;
- (4) the location at which the audit will be conducted; and
- (5) any other notice, information or request the Department deems appropriate.

40.1131: Response Actions During Audits

Persons who have been notified of the initiation of an audit may continue to conduct response actions during the course of an audit unless otherwise ordered by the Department.

40.1140: Notice of Audit Findings

(1) Except with respect to an audit that consists solely of an examination of documents within the Department's records or in other public records, the Department shall issue a Notice of Audit Findings at the conclusion of an audit. Such notice shall include the following information:

- (a) the name and location of the site;
- (b) the Release Tracking Number(s);
- (c) a statement as to the type of audit performed;
- (d) a statement as to whether the Department, on the basis of the information reviewed during the audit and in reliance upon the accuracy of that information, identified any violations or deficiencies;
- (e) an Interim Deadline by which violations and/or deficiencies shall be corrected;
- (f) an Interim Deadline by which an Audit Follow-up Plan, if such a plan is required, shall be submitted; and
- (g) any other information or request the Department deems appropriate.

(2) In the event the Department identifies violations of M.G.L. c. 21E, 310 CMR 40.0000 or any other applicable requirement during an audit, the Department may issue any of the following with a Notice of Audit Findings:

- (a) a Notice of Noncompliance;
- (b) a Notice of Intent to Assess a Civil Administrative Penalty;
- (c) a Notice of Responsibility;
- (d) a Notice of Response Action; and/or
- (e) an order.

(3) The Department shall not be required to issue a Notice of Audit Findings to any person if the Department determines that such notice could jeopardize an enforcement action.

40.1160: Audit Follow-up Plans

(1) At or prior to the issuance of a Notice of Audit Findings, the Department may require that a RP, PRP or Other Person submit for its approval a written Audit Follow-up Plan setting forth how and when such person proposes to confirm, demonstrate or achieve compliance with M.G.L. c. 21E, 310 CMR 40.0000 and/or any applicable requirements.

(2) Each Audit Follow-up Plan shall be submitted to the Department using a form established by the Department for such purpose, and shall include, at a minimum, the following information:

- (a) a description of the activities that will be taken;
- (b) the objective of, and proposed schedule for, each element of the plan;
- (c) the name, registration number, signature and seal of the Licensed Site Professional who prepared the Audit Follow-up Plan; and
- (d) the certification set forth in 310 CMR 40.0009.

(3) In approving an Audit Follow-up Plan, the Department may do the following:

- (a) establish conditions, including, but not limited to, conditions setting forth the Department's role in overseeing elements of the plan;
- (b) establish Interim Deadlines;
- (c) establish requirements for documentation and/or submittal of information; and
- (d) take any other action authorized by M.G.L. c. 21E, 310 CMR 40.0000 or any other applicable law.

(4) If the Department does not approve or disapprove of an Audit Follow-up Plan within 90 days of its receipt of such plan, an RP, PRP or Other Person shall proceed to implement such plan.

(5) Any person who is required to comply with an Audit Follow-up Plan may request, in writing, a modification thereof prior to the running of any applicable deadline. Modifications shall be approved, conditionally approved, or denied by the Department in writing within 21 days of receipt. Approval of such modification shall be presumed if the Department does not issue a written approval or denial of said modification within 21 days of receipt.

40.1160: continued

- (6) Public Involvement Activities required for Audit Follow-up Plans shall be conducted in accordance with 310 CMR 40.1400. If the disposal site where an Audit Follow-up Plan is being implemented is a designated Public Involvement Plan site, then a Public Involvement Plan shall be implemented by the person conducting response actions at that site pursuant to 310 CMR 40.1405.

40.1170: Post-audit Completion Statements

- (1) Upon completion of the activities required by the Department in a Notice of Audit Findings or any approved Audit Follow-up Plan, the RP, PRP or Other Person undertaking such activities shall submit a Post-audit Completion Statement to the Department using a form established by the Department for such purpose.
- (2) Each Post-Audit Completion Statement shall include the following information:
 - (a) an LSP Opinion as to whether the response actions required by the Notice of Audit Findings and any approved Audit Follow-up Plan have been completed in accordance with M.G.L. c. 21E, 310 CMR 40.0000, the terms of any Department approval, and any other applicable laws and requirements;
 - (b) a description of the response actions completed pursuant to the Notice of Audit Findings and any approved Audit Follow-up Plan;
 - (c) the investigatory and monitoring data obtained, if any, during the implementation of such response actions;
 - (d) any other information required by the Department in the Notice of Audit Findings or any approved Audit Follow-up Plan; and
 - (e) a description of additional response activities, if any, necessary to confirm, demonstrate or achieve compliance with the requirements stated in the Notice of Audit Findings or any approved Audit Follow-up Plan.

40.1190: Reservation of Rights

- (1) No provision of 310 CMR 40.1100 shall be construed to relieve any person from any obligation for Response Action Costs or damages related to a site or disposal site for which that person is liable under M.G.L. c. 21E or from any obligation for any administrative, civil or criminal penalty, fine, settlement, or other damages.
- (2) No provision of 310 CMR 40.1100 shall be construed to limit the Department's authority to take or arrange, or to require any RP or PRP to perform, any response action authorized by M.G.L. c. 21E which the Department deems necessary to protect health, safety, public welfare or the environment.

SUBPART L: COST RECOVERY, LIEN HEARINGS AND
PETITIONS FOR REIMBURSEMENT OF INCURRED COSTS

40.1200: Cost Recovery

- (1) The regulations published at 310 CMR 40.1201 through 40.1249, cited collectively as 310 CMR 40.1200, set forth procedures for recovery of Response Action Costs by or on behalf of the Commonwealth.

40.1201: Purpose, Scope and Applicability

- (1) 310 CMR 40.1200 does not apply to any other compensation, recovery or reimbursement to which the Commonwealth may be entitled, or to any compensation, recovery or reimbursement to which any person other than the Commonwealth may be entitled, except as provided by M.G.L. c. 21E, § 3A(j)(2) or M.G.L. c. 21E, § 3B.
- (2) The provisions of 310 CMR 40.1200 shall apply to Response Action Costs incurred on or after October 1, 1993. Nothing in 310 CMR 40.1200 shall prevent the Commonwealth from recovering Response Action Costs incurred prior to October 1, 1993.

40.1201: continued

- (3) Neither 310 CMR 40.1200 nor any other provision of this Contingency Plan is intended to provide procedures for the recovery of costs or damages by private persons.
- (4) These provisions shall not apply to a RP, PRP or Other Person who:
 - (a) has paid in full annual compliance assurance fees, including interest if and when applicable, in accordance with 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*, if the Response Action Costs were incurred during the period for which such annual compliance assurance fees were required to be paid for the response action(s) at or for the site; and
 - (b) is performing response actions at the site.

40.1202: General Provisions

The Department shall collect and maintain documentation of response actions and Response Action Costs. The documentation shall form the basis for recovery of Response Action Costs. The circumstances of every release or threat of release of oil and/or hazardous material which is the subject of a response action shall be compiled and maintained in records. Such records shall contain a description of response actions taken, any RPs or PRPs identified, and an accounting of costs incurred by the Department.

40.1220: Recovery of Response Action Costs Incurred in Response Actions

The provisions set forth in 310 CMR 40.1220 and 40.1221 shall govern the Commonwealth's recovery of Response Action Costs incurred pursuant to this Contingency Plan.

- (1) Response Action Costs. Response Action Costs with regard to a specific site shall be calculated so as to reflect the actual cost of the Department's response actions. Such Costs shall be calculated as follows:
 - (a) The total number of Direct Hours expended by each employee of the Department with regard to a specific site shall be multiplied by the employee's hourly rate, and then the figures derived for each Department employee shall be added together;
 - (b) To the figure derived in 310 CMR 40.1220(1)(a) shall be added a figure derived by multiplying the total number of Direct Hours expended by all employees of the Department with regard to a specific site by the current Indirect Rate, which shall be calculated in accordance with 310 CMR 40.1221; and
 - (c) All payments made by the Department to its Contractors, grantees or agents to plan, manage, direct or perform response actions with regard to a specific site shall be added to the figure derived pursuant to 310 CMR 40.1220(1)(a) and (b).
- (2) Recovery and Demand.
 - (a) The Department may seek to recover Response Action Costs calculated pursuant to 310 CMR 40.1220(1), using any of the means described in M.G.L. c. 21E, 310 CMR 40.0000, or other applicable law. Any recovery of Costs by the Department shall not prevent the Department from incurring and recovering additional Response Action Costs.
 - (b) The Department may make written demand for Response Action Costs with regard to a specific site to all RPs, PRPs and Other Persons after such costs have been calculated pursuant to 310 CMR 40.1220(1), and periodically thereafter.
- (3) Administrative Review.
 - (a) The Department may, in its sole discretion, provide an opportunity for an informal conference to any person to whom the Department has made a demand for payment of Response Action Costs and who disputes the calculation or reasonableness of those Costs. Such review may provide an opportunity to present, at a minimum, written information regarding a disputed demand to the Department for its consideration.
 - (b) The Department may impose reasonable time limits within which any person to whom the Department has made a demand for payment may request such administrative review.

40.1220: continued

(c) An administrative review pursuant to 310 CMR 40.1220(3) shall not be construed to be an "adjudicatory proceeding" as defined by M.G.L. c. 21E or M.G.L. c. 30A and shall not be subject to 310 CMR 1.00: *Adjudicatory Proceedings*. Any conclusions reached by the Department as part of such review shall not be construed to be an order pursuant to M.G.L. c. 21E, §§ 9 or 10, unless the Department specifically and in writing states otherwise.

(4) Interest Calculation. The Department shall seek to recover interest accrued on uncollected Response Action Costs at a rate of 1% per month, or 12% per year, commencing 45 days after the Department has made written request for payment of Costs. The Department shall compound the interest annually until the debt is paid or otherwise resolved. The Department may elect not to seek interest that accrues during an administrative review pursuant to 310 CMR 40.1220(3).

(5) Treble Costs.

(a) The Department may seek to recover from RPs and/or PRPs up to three times the Response Action Costs calculated pursuant to 310 CMR 40.1220(1), in accordance with M.G.L. c. 21E, § 5(e).

(b) The Department, in its sole discretion, may elect not to seek treble costs from RPs and/or PRPs who pay Response Action Costs after demand is made pursuant to 310 CMR 40.1220(2)(b).

(6) Using Consent Orders to Set a Maximum for Response Action Costs to be Recovered. The Department may enter into an administrative consent order with RPs, PRPs or Other Persons governing response actions at a site pursuant to M.G.L. c. 21E, §§ 9 or 10. If the Department is able to estimate future Response Action Costs at a disposal site with a reasonable degree of certainty, the Department may, in its sole discretion and subject to terms and conditions, agree as a part of such consent order upon an amount which shall be the maximum Response Action Cost the Department will seek to recover from such RPs, PRPs or Other Persons for work to be performed pursuant to the provisions of that consent order.

40.1221: Calculation of Indirect Rate

(1) The Indirect Rate shall be recalculated in conformance with and on the same schedule as that utilized by 310 CMR 4.00: *Timely Action Schedule and Fee Provisions*.

(2) Commencing October 1, 1993, and continuing until the Indirect Rate is changed pursuant to 310 CMR 40.1221(1), the Indirect Rate shall be \$27.31 per Direct Hour.

40.1250: Procedures for Liens

The regulations published at 310 CMR 40.1250 through 310 CMR 40.1259, cited collectively as 310 CMR 40.1250, set forth procedures for recording, registering and filing liens authorized by M.G.L. c. 21E, § 13.

40.1251: Notice of Intent to Perfect a Lien

Whenever the Department intends to record, register or file a lien on real or personal property pursuant to M.G.L. c. 21E, § 13, the Department shall provide a notice of such intent to any owner of the property whose name and address is known to the Department as of 21 days prior to the date the Department provides such notice of intent, and also to the following persons who have a Property Interest in the property over which the Department's lien will have priority pursuant to M.G.L. c. 21E, §13:

(1) persons having a recorded or registered Property Interest in the property whose name and address is known to the Department as of 21 days prior to the date the Department provides such notice of intent;

(2) persons having an unrecorded or unregistered Property Interest in the property whose interest, name and address is known to the Department as of 21 days prior to the date the Department provides such notice of intent; and

40.1251: continued

- (3) persons having an unrecorded or unregistered Property Interest in the property whose interest, name and/or address is unknown to the Department.

40.1252: Content of Notice of Intent to Perfect a Lien

Each Lien Notice shall include all of the following:

- (1) a statement of the Department's statutory and regulatory authority to record, register or file the lien;
- (2) a concise statement of the alleged factual and legal basis for the lien, including a description of the property and any debt to the Commonwealth;
- (3) a statement that any owner of the property and any person having a Property Interest in the property over which the lien will have priority pursuant to M.G.L. c. 21E, § 13 has a right to an adjudicatory hearing on such perfection;
- (4) a statement of the requirements that must be complied with by a person having a right to an adjudicatory proceeding pursuant to 310 CMR 40.1254 in order to avoid being deemed to have waived his or her right to such adjudicatory hearing; and
- (5) a statement of how and when the debt owed must be paid to avoid perfection of the lien.

40.1253: Service of Notice of Intent to Perfect a Lien

Each Lien Notice shall be served by one or more of the following methods:

- (1) Service in hand at the person's last known address or at the last known address of any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service.
- (2) Service in hand personally to the person, or to any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service.
- (3) By certified mail, return receipt requested, addressed to the person's last known address, or to the last known address of any officer, employee, or agent of the person authorized by appointment of the person or by law to accept service.
- (4) With respect to any person having an unrecorded or unregistered Property Interest in the property whose name and/or address is unknown to the Department, by publication in a newspaper of general circulation serving the community where the property is located.

40.1254: Right to Adjudicatory Hearing

Subject to the provisions of 310 CMR 40.1255, whenever the Department seeks to perfect a lien on any real or personal property, the following persons shall have the right to an adjudicatory hearing:

- (1) any owner of the property;
- (2) any other person having a recorded or registered Property Interest in the property over which the lien will have priority pursuant to M.G.L. c. 21E, § 13; and/or
- (3) any person having an unrecorded or unregistered Property Interest in the property over which the lien will have priority pursuant to M.G.L. c. 21E, § 13.

40.1255: Waiver of Right to Adjudicatory Hearing

Any person who has a right to an adjudicatory hearing pursuant to 310 CMR 40.1254 shall be deemed to have waived the right to an adjudicatory hearing unless the Department receives from such person a written statement that denies that the Department has a basis to perfect the lien, and does so subject to and in compliance with applicable provisions of 310 CMR 1.00: *Adjudicatory Proceedings*, within 21 days of the following:

- (a) with respect to the notice required by 310 CMR 40.1251(1) or (2), the date of issuance of the notice in accordance with 310 CMR 40.1253(1), (2) or (3); or
- (b) with respect to the notice required by 310 CMR 40.1251(3), the date of publication of the notice in accordance with 310 CMR 40.1253(4).

40.1256: Conducting the Adjudicatory Hearing

(1) Every adjudicatory hearing conducted pursuant to M.G.L. c. 21E and 310 CMR 40.1250 shall be conducted in accordance with all applicable provisions of M.G.L. c. 30A and 310 CMR 1.00: *Adjudicatory Proceedings*, provided, however, that to the extent such provisions are inconsistent with M.G.L. c. 21E and 310 CMR 40.1250, the provisions of M.G.L. c. 21E and 310 CMR 40.1250 shall apply.

(2) The Department shall not be required to prove any facts alleged by the Department in the Lien Notice unless such facts are expressly denied in the statement filed pursuant to 310 CMR 40.1255.

(3) If, in the statement filed pursuant to 310 CMR 40.1255, the person filing such statement denies one or more facts, the Department shall demonstrate a reasonable likelihood that such fact or facts is true or exists.

(4) Damage to the environment, as defined in M.G.L. c. 214A, § 7, will not be at issue during the conduct of hearings pursuant to 310 CMR 40.1250.

40.1257: Reservation of Rights

No provision of 310 CMR 40.1250 shall be construed to limit or waive the Department's rights to commence a civil action for the purposes of obtaining an order or decree authorizing the recording, registering or filing of a lien pursuant to M.G.L. c. 21E, § 13, including, but not limited to, the commencement of an *ex parte* proceeding in the event of exigent or other circumstance that would render real or personal property unavailable to satisfy an eventual judgment.

40.1260: Petitions for Reimbursement of Incurred Costs

The regulations published at 310 CMR 40.1260 through 40.1269, cited collectively herein as 310 CMR 40.1260, set forth procedures for petitioning the Department for reimbursement for the reasonable costs of compliance with an order issued pursuant to M.G.L. c. 21E, § 10(b).

40.1261: Right to Petition for Reimbursement

Any person to whom the Department has issued an order pursuant to M.G.L. c. 21E, § 10(b), who either (1) disputes his or her liability under M.G.L. c. 21E, § 5, or (2) claims he or she was entitled to the benefits of an affirmative defense or limitation on liability set forth in M.G.L. c. 21E or in any other applicable law may petition the Department for reimbursement for the reasonable costs of compliance with such order. No order or determination issued by the Department shall be construed to be an order issued pursuant to M.G.L. c. 21E, § 10(b), unless the Department specifically and in writing provides to that effect.

40.1262: Content of Petition

Each petition for reimbursement pursuant to M.G.L. c. 21E, § 10(b)(2), and 310 CMR 40.1261 shall be in writing and shall state clearly and concisely the facts upon which the petitioner claims are grounds for reimbursement, the costs for which reimbursement is sought, the location and Release Tracking Number(s) of the disposal site, and the file number as it appears in the caption on such order.

40.1263: Timing of Petition

Each petition for reimbursement pursuant to M.G.L. c. 21E, § 10(b)(2) and 310 CMR 40.1261 shall be submitted to the Department within 90 days of the date of completion of compliance with such order.

40.1264: Grounds for Reimbursement

The Department may grant the petition, or a portion thereof, if the Department is persuaded that the person to whom the Department has issued such order has complied with the terms thereof, and:

- (1) either was not liable under M.G.L. c. 21E or was entitled to the benefits of an affirmative defense or limitation on liability set forth in M.G.L. c. 21E or in any other applicable law; and
- (2) the costs for which reimbursement are sought are for compliance with the order and were incurred reasonably and in good faith.

40.1265: Petitions not Subject to M.G.L. c. 30A

The refusal by the Department to grant all or part of a petition for reimbursement filed pursuant to M.G.L. c. 21E, § 10(b)(2), and 310 CMR 40.1261 shall not be an adjudicatory proceeding and shall not be subject to those provisions of M.G.L. c. 30A, 310 CMR 1.00: *Adjudicatory Proceedings* or any other law governing adjudicatory proceedings.

SUBPART M: ADMINISTRATIVE RECORD

40.1301: Purpose, Scope and Applicability

- (1) The regulations published at 310 CMR 40.1301 through 310 CMR 40.1399, collectively referred to as 310 CMR 40.1300, set forth procedures for the establishment of an administrative record pursuant to M.G.L. c. 21E, § 5A.
- (2) The regulations published at 310 CMR 40.1300 shall apply when the Department elects to establish an administrative record pursuant to M.G.L. c. 21E, § 5A, for any Release Abatement Measure under 310 CMR 40.0440, Comprehensive Response Action under 310 CMR 40.0800 or any other response action.
- (3) 310 CMR 40.1300 does not apply to response actions selected prior to April 25, 2014 or to Immediate Response Actions under 310 CMR 40.0410.
- (4) With respect to those response actions for which the Department does not elect to establish an administrative record in accordance with 310 CMR 40.1300, the administrative record shall consist of all items developed, relied upon, and received pursuant to procedures used by the Department for the selection of the response action, including procedures for the participation of interested parties and the public.

40.1301: continued

(5) 310 CMR 40.1300 describes when the Department may establish an administrative record pursuant to M.G.L. c. 21E, § 5A; the standards for the content of such an administrative record; the procedures by which the public, RPs and PRPs may participate in the establishment of such an administrative record; and where the Department shall locate such an administrative record.

(6) The Department's decision to establish or certify an administrative record in accordance with 310 CMR 40.1300, and the Department's selection of a response action pursuant to M.G.L. c. 21E and 310 CMR 40.0000, shall not be an adjudicatory proceeding and shall not be subject to those provisions of M.G.L. c. 30A, or any other law, governing adjudicatory proceedings.

40.1302: When the Department May Establish an Administrative Record

The Department may establish an administrative record in accordance with M.G.L. c. 21E, § 5A, and 310 CMR 40.1300, upon which the Department shall base its selection of a response action, with respect to any site at which:

- (1) the Department itself, or acting through its agents or contractors, carries out a response action; or
- (2) the Department issues an order pursuant to M.G.L. c. 21E, § 10(b).

40.1303: Participation by the Public, RPs and PRPs

(1) After the Department decides to establish an administrative record pursuant to 310 CMR 40.1300, and prior to the selection of a response action, the Department shall give notice and afford interested persons a reasonable opportunity to comment. Unless response actions must be taken earlier to control the potential for health damage, human exposure, safety hazards or environmental harm through appropriate short term measures, the Department shall give notice at least 21 days prior to its selection of a response action as follows:

- (a) by publication thereof in a newspaper(s) of general circulation in the community(ies) that the Department reasonably believes are affected by the disposal site;
- (b) by certified mail, return receipt requested, to any person who the Department reasonably believes:
 1. is an RP or a PRP; or
 2. holds title to, or an ownership interest in, any real property which comprises the disposal site or which may be affected by the response action and whose name and address is known by the Department at the time the Department elects to establish such an administrative record;
- (c) if the disposal site is a Public Involvement Plan (PIP) Site, by first-class mail or hand-delivery to each person whose name and address appears on the PIP mailing list established in accordance with 310 CMR 40.1400; and
- (d) by first-class mail or hand delivery to the Chief Municipal Official and local board of health of each community in which the disposal site is known to be located.

(2) Content of Notice. The notice required by 310 CMR 40.1303(1) shall include the following information:

- (a) a description of the location of the disposal site and activities proposed for such site;
- (b) the Department's authority to establish an administrative record for the disposal site upon which the Department will base its selection of a response action;
- (c) the times when, and location where, interested persons may inspect the administrative record, including, without limitation, remedial action alternatives under consideration;
- (d) a description of the procedure by which persons interested in commenting may submit data, views and arguments to the Department;
- (e) the deadline established by the Department for receipt of public comments; and
- (f) any additional information determined by the Department to be pertinent.

40.1303: continued

(3) Procedure.

(a) Within 21 days, or within such other time period determined by the Department in accordance with 310 CMR 40.1303(1), after providing notice as required by 310 CMR 40.1303(1)(c), (d), and (e), any interested person may submit written comments in the form of a signed letter, brief or other memorandum stating his or her views or arguments, including data in support thereof, concerning the remedial action alternatives proposed for the disposal site. Such written comments shall be submitted to the Department by first-class mail or hand-delivery during normal business hours. If the Department has expedited response actions in accordance with 310 CMR 40.1303(1) to control the potential for health damage, human exposure, safety hazards or environmental harm through appropriate short term measures, the Department may request written comments to be submitted after providing notice as required by 310 CMR 40.1303(1)(c) through (e). If such response actions have not been taken, the Department may request written comments to be submitted to the Department within 21 days of the later date of publication or notice required by 310 CMR 40.1303(1).

(b) The Department may, at its sole discretion, afford any interested person or his or her duly appointed representative an opportunity to present data, views or arguments orally before the Department during a meeting at which the remedial action alternatives will be presented.

(c) The Department shall consider and respond as it deems appropriate to significant public comments. The Department shall place a written response to any significant comments submitted in the administrative record.

(d) Upon reasonable request or on its own initiative, the Department may extend the period for submission of public comments.

(e) After the comment period, and any extension thereof, has terminated, the Department shall place written documentation in the administrative record of the basis for the Department's selection of a response action and provide written notice thereof to all persons who have submitted significant comments pursuant to 310 CMR 40.1303(1)(c) and any other persons submitting comments during the period established for public comment.

(4) The Department shall certify that the administrative record is complete:

(a) after the termination of the public comment period;

(b) after the Department's response to significant comments has been placed in the administrative record; and

(c) after the Department has issued a report documenting the basis for the Department's selection of a response action for the disposal site.

40.1304: Administrative Record Requirements After Certification

(1) The Department may reopen the administrative record after the administrative record has been certified complete in accordance with 310 CMR 40.1303(4) if:

(a) the Department intends to carry out or arrange a response action in addition to those response actions selected at the time the Department certified the administrative record complete; or

(b) the Department carries out or arranges a response action significantly different from the response action selected in the report required by 310 CMR 40.1303(3)(e).

(2) If the Department reopens the administrative record pursuant to 310 CMR 40.1304(1), the Department shall give notice thereof and afford interested persons an opportunity to present data, views or arguments, in accordance with 310 CMR 40.1303(1) through (4).

40.1305: Content of the Administrative Record

(1) The administrative record shall include those documents that form the basis for the Department's selection of a response action.

40.1305: continued

(2) The administrative record shall contain the following types of documents when such documents are material to the Department's selection of a response action:

- (a) documents containing factual information and data, including documents containing analyses of such information and data;
- (b) guidance documents, technical literature, and site-specific policy memoranda;
- (c) documents received, published or made available to the public pursuant to 310 CMR 40.1400;
- (d) documents setting forth and/or supporting determinations by the Department, including scopes of work, plans and reports; and
- (e) copies of enforcement orders, including, but not limited to, consent orders, and Notices of Noncompliance, Notices of Responsibility and Notices of Response Action.

(3) If the Department issues an administrative order pursuant to M.G.L. c. 21E, § 10(b)(1)(B), with respect to a disposal site for which the Department has elected to establish an administrative record in accordance with 310 CMR 40.1300, the Department shall include in the administrative record evidence of the following:

- (a) that the disposal site has been listed in accordance with M.G.L. c. 21E, § 3A(b), and 310 CMR 40.0168;
- (b) that the Department has given the person in question the opportunity to apply voluntarily for a permit or to carry out response actions at the disposal site; and
- (c) that the Department has determined that it would be contrary to the public interest to defer necessary response actions, or to publicly fund response actions to avoid any such deferral, with respect to the disposal site.

(4) Documents not included in the administrative record. The Department is not required to include in the administrative record documents which do not form the basis for the selection of the response action.

(5) Information protected from disclosure.

- (a) Any document, information or other thing which the Department determines to be a trade secret in accordance with 310 CMR 3.00: *Access to and Confidentiality of Department Records and Files* shall be maintained in the Confidential File of the administrative record and shall not be made available for public inspection, except as provided by 310 CMR 3.21: *When Trade Secrets May Be Disclosed By the Department*.
- (b) Any document protected from disclosure under the Massachusetts Public Records Law, M.G.L. c. 66, § 10, or other applicable federal or state law may be maintained in the Confidential File of the administrative record and shall not be made available for public inspection, except as provided by 310 CMR 40.1305(6).
- (c) Any document, or part thereof, containing privileged information, including documents subject to the attorney-client privilege, attorney work product and any other document to which a privilege attaches under applicable law, may be maintained in the Confidential File of the administrative record and shall not be made available for public inspection, except as provided by 310 CMR 40.1305(6).

(6) Confidential File. Except as provided by 310 CMR 40.1305(5)(a), if any document, or part thereof, that forms the basis for the selection of a response action is protected from disclosure pursuant to 310 CMR 40.1305(5), such document, to the extent practicable, shall be summarized in such a way as to render the document, or the material information included therein, available to the public. The summary document shall be placed in the publicly available portion of the administrative record. If the Department determines that it is not practicable to summarize the information protected from disclosure, and any other information in such a document forms the basis or a portion of the basis for the Department's selection of a response action, the information protected from disclosure shall be deleted therefrom, and the remaining portions of the document shall be included in the publicly available portion of the administrative record. Those parts of the document determined by the Department to be impracticable to summarize shall be placed in the Confidential File of the administrative record. Information in the Confidential File shall not be disclosed to any RP, PRP or the public, unless the Department expressly waives an applicable privilege or disclosure is otherwise authorized or required by applicable law or court order.

40.1305: continued

(7) General Index. The administrative record shall contain an index describing the various files included within the administrative record, including, but not limited to, the Confidential File. The Department shall list separately each file included in the administrative record and shall include in such list a description of the documents within each file. Such files may include, without limitation, an Environmental Analyses File containing copies of the results of environmental sampling and analyses; a Correspondence File containing copies of pertinent letters and other correspondence; a Public Involvement File documenting Public Involvement Activities undertaken with respect to the disposal site; a Response Action File containing scopes of work, plans and reports regarding response actions at the disposal site; and a Contractor File containing copies of pertinent contracts, invoices and payments.

40.1306: Location of the Administrative Record

(1) Except as provided by 310 CMR 40.1306(2) and (3), the Department shall make the administrative record, and the index for the administrative record, reasonably available to RPs, PRPs and the public at the Department regional office that serves the area where the disposal site is located. The Department may keep additional copies of the administrative record and the index for the administrative record at other locations.

(2) The Department shall not be required to keep the following documents in the office of the Department to which the site is assigned, provided that the index to the administrative record indicates the locations where such documents are kept:

- (a) sampling and testing data, quality control and quality assurance documentation and chain of custody forms;
- (b) guidance and policy documents not generated specifically for the disposal site at issue;
- (c) publicly available technical literature not generated for the disposal site at issue, such as engineering textbooks, articles from technical journals and toxicological profiles; and
- (d) documents included in the Confidential File of the administrative record.

(3) If any document, or part thereof, listed in the index to the administrative record is not kept in the Department office described in 310 CMR 40.1306(1), the Department shall make such documents, or photocopies thereof, excluding documents from the Confidential File, reasonably available for public review at the location described in 310 CMR 40.1305(1), upon request.

(4) The Department may make any document included in the administrative record available in microform, microfilm or any other suitable form.

SUBPART N: PUBLIC INVOLVEMENT AND TECHNICAL ASSISTANCE GRANTS40.1400: Public Involvement - General Approach for Response Actions

310 CMR 40.1400 through 40.1449, cited collectively as 310 CMR 40.1400, contain requirements and procedures for the conduct of Public Involvement Activities in connection with response actions.

40.1401: General Principles for Public Involvement in Response Actions

(1) Activities undertaken to foster public involvement during response actions shall serve two objectives:

- (a) for all disposal sites, Public Involvement Activities shall inform the public about the risks posed by the disposal site, the status of response actions, the availability of Technical Assistance Grants, and opportunities for public involvement; and
- (b) for Public Involvement Plan sites, Public Involvement Activities shall also solicit the concerns of the public about the disposal site and response actions, and shall consider, address and, where relevant and material to the response action, incorporate these concerns in planning response actions.

40.1401: continued

(2) Concerns, information, and comments raised during the implementation of Public Involvement Activities conducted pursuant to 310 CMR 40.1400 through 40.1449 shall be considered when making decisions regarding response actions.

40.1402: Responsibility for Performing Public Involvement Activities in Response Actions

(1) Public Involvement Activities required by this Contingency Plan shall be performed at all disposal sites regardless of whether the Department, RP, PRP or Other Person is conducting the response action.

(2) At any disposal site where the Department is performing a response action, the Department shall be responsible for all Public Involvement Activities pursuant to M.G.L. c. 21E and 310 CMR 40.0000.

(3) At any disposal site at which a RP, PRP or Other Person is conducting a response action, that RP, PRP or Other Person shall be responsible for all Public Involvement Activities pursuant to M.G.L. c. 21E and 310 CMR 40.0000.

(4) Nothing shall prohibit the Department from conducting Public Involvement Activities at any disposal site where the Department deems it is appropriate.

40.1403: Minimum Public Involvement Activities in Response Actions

(1) Public Involvement Activities undertaken at all disposal sites are those designed primarily to provide the public with information regarding the risks posed by the disposal site, status of response actions, availability of technical assistance grants, and opportunities for public involvement.

(2) At a minimum, the following procedures shall be followed for written and public notices required under 310 CMR 40.1400:

(a) except as provided in 310 CMR 1403(2)3., written notices shall be made either by hand-delivery or first-class mail, and the date of notification shall be:

1. if served by hand, the date when delivered:

- a. personally to the intended recipient;
- b. personally to any officer, employee, or agent of the intended recipient authorized by appointment of the intended recipient or by law to accept service; or
- c. to an adult member of the intended recipient's household;

2. if served by mail, the date of the postmark;

3. upon written agreement given to the RP, PRP or Other Person conducting response actions by the intended recipient of a written notice required pursuant to 310 CMR 40.1400, such written notice may be provided by electronic mail and the date of receipt shall be the date that such electronic mail message was sent and successfully delivered;

(b) public notices shall be made in a newspaper of general circulation in the community(ies) in which the disposal site is located and in newspapers of general circulation in other communities which are, or are likely to be, affected by the disposal sites by:

1. publishing an advertisement in the local news section; or
2. publishing a legal notice, if the cost of an advertisement of comparable size in the local news section exceeds the cost of a legal notice by 20% or more, or if the newspaper refuses to publish the notices as an advertisement; and

(c) written and public notices shall be documented to the Department according to the following:

1. a copy of each written notice shall be concurrently submitted to the Department; and
2. except as provided in 310 CMR 40.0062(5), a copy of the public notice as published in each newspaper containing the date of publication and name of the newspaper, shall be submitted to the Department within 30 days of the date of publication.

(3) At any time after the Department has been notified of a release or threat of release pursuant to 310 CMR 40.0300, the Chief Municipal Officer and Board of Health in the community(ies) in which the disposal site is located and in any other communities which are, or are likely to be, affected by the disposal site shall be provided written notice by the person conducting response actions of:

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- (a) the purpose, nature and expected duration of any field work related to the response action involving the implementation of Phase IV remedial actions pursuant to 310 CMR 40.0870; the use of respirators and other protective clothing (Level A, B or C as defined by "Standard Operating Safety Guides" published by the U.S. Environmental Protection Agency); or any sampling involving private drinking water supply wells, indoor air or surficial soils at any residential property at, adjacent to, or down-gradient from any contamination or suspected contamination from a release or threat of release.
 - 1. Notification shall be made at least three days prior to the commencement of such field work.
 - 2. Notification shall be based on plans for the field work, including the expected level of protection for site workers. If the level of protection for site workers is upgraded during the course of the work to Level C or above, the Chief Municipal Officer and Board of Health shall be notified of the upgrade as soon as is practicable.
 - 3. Notification of field work is not required for Immediate Response Actions undertaken to address releases of oil and/or hazardous material as defined in 310 CMR 40.0311(1) through (9), or when advance notice for these actions is provided pursuant to 310 CMR 40.1403(3)(b) and (d);
- (b) the implementation of any Immediate Response Action taken to prevent, control, abate or eliminate an Imminent Hazard as required in 310 CMR 40.0322 and 40.0426 or to address a Critical Exposure Pathway as defined in 310 CMR 40.0006.
 - 1. Notification shall include information about the purpose, nature and expected duration of the Immediate Response Action.
 - 2. Notification shall be made as soon as feasible, but in all cases notification shall be made no later than 48 hours following implementation of the Immediate Response Action;
- (c) the availability of all Completion Statements required for Immediate Response Actions taken to prevent, control, abate or eliminate Imminent Hazards pursuant to 310 CMR 40.0427.
 - 1. Notification may take the form of copies of correspondence which contain or summarize the Completion Statement, or a notice of the availability of the Completion Statement.
 - 2. Notification shall include information about how local officials may obtain a copy of the Completion Statement from the person(s) conducting response actions.
- (d) the implementation of any Release Abatement Measure.
 - 1. Notification shall include information about the purpose, nature and expected duration of the Release Abatement Measure.
 - 2. Except as provided at 310 CMR 40.1403(3)(d)3., notification shall be made within the 20 days prior to the implementation of the Release Abatement Measure Plan.
 - 3. In the event that a removal action initiated as a Limited Removal Action is continued as a Release Abatement Measure pursuant to 310 CMR 40.0318(9)(b), notification shall be made on the same date that the complete RAM Plan is submitted to the Department pursuant to 310 CMR 40.0443.
- (e) the availability of the Phase I Initial Site Investigation Report required pursuant to 310 CMR 40.0480, and each subsequent Phase Report required pursuant to 310 CMR 40.0800. Notification shall take the form of a copy of the summary of findings and statement of conclusions, as provided in 310 CMR 40.0483(h), 40.0835(4)(i), 40.0852(5), or for Phase IV, a copy of the description of the Comprehensive Remedial Action provided in the Remedy Implementation Plan pursuant to 310 CMR 40.0874(3)(b)5. and 40.0874(3)(b)10., or for Phase V, a copy of the Phase V Completion Statement Form, and shall include information about how local officials may obtain a copy of the Report from the person(s) conducting response actions.
- (f) the availability of any Permanent or Temporary Solution Statements filed pursuant to 310 CMR 40.1000.
 - 1. Notification may take the form of copies of correspondence which contain or summarize decisions regarding the Statement or a notice of the availability of the Statement.
 - 2. Notification shall include information about how local officials may obtain a copy of the Statement from the person(s) conducting response actions.

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(g) the availability of any Downgradient Property Status Submittal and/or modification of Downgradient Property Status Submittal provided to the Department pursuant to 310 CMR 40.0180. Notification shall include information about how local officials may obtain a full copy of the Downgradient Property Status Submittal and/or Modification of Downgradient Property Status Submittal from the person(s) conducting response actions.

(h) the submittal of a Release Notification Form to the Department pursuant to 310 CMR 40.0371.

1. Notification shall consist of a written notice pursuant to 310 CMR 40.1403(2)(a) that includes:

- a. a copy of the Release Notification Form; and
- b. a statement of the local officials' right to request additional Public Involvement Activities under 310 CMR 40.1403(9) and upon tier classification under 310 CMR 40.1404.

2. Notification shall be provided no later than seven days after sending the Release Notification Form to the Department pursuant to 310 CMR 40.0371.

(i) additional remedial actions conducted as part of an Audit Follow-up Plan pursuant to 310 CMR 40.1160.

(4) Notifications required by 310 CMR 40.1403(3)(a), (b), and (d) may be made orally or in writing. Notifications required by 310 CMR 40.1403(3)(c), (e), (f), and (g) shall be made in writing.

(a) Oral notifications shall be followed by written notice within seven days of the oral notification.

(b) A copy of each written notice shall be submitted to the Department concurrently with its filing with the Chief Municipal Officer and Board of Health.

(5) When issues of public safety are involved at a disposal site, the Fire and Police Chief in the community(ies) in which the disposal site is located and in any other communities which are, or are likely to be, affected by the disposal site shall be notified about any threat to public safety prior to the implementation of remedial actions, unless prior notification is impracticable.

(6) Following Tier Classification or reclassification pursuant to 310 CMR 40.0510 or 310 CMR 40.0530, respectively, the person(s) conducting response actions shall undertake the following actions to inform the public about the status of the disposal site's classification:

(a) within seven days of filing a Tier Classification Submittal, a public notice pursuant to 310 CMR 40.1403(2)(b) which indicates the classification or reclassification of the disposal site shall be published in a form established by the Department for such purpose and shall include:

1. a statement of the Public Involvement Activities available under 310 CMR 40.1403(9) and 40.1404; and
2. contact information for the person(s) conducting response actions, including the person's name, address, and telephone number;

(b) at least three days prior to publication of the public notice specified in 310 CMR 40.1403(6)(a), a written notice pursuant to 310 CMR 40.1403(2)(a) shall be sent to the Chief Municipal Officer(s) and the Board(s) of Health in the community(ies) in which the disposal site is located and in any other communities which are, or are likely to be, affected by the disposal site, and shall include:

1. a copy of the public notice;
2. a copy of the disposal site map included in the Phase I Report pursuant to 310 CMR 40.0483(1)(b); and
3. information regarding the availability of:
 - a. for an initial Tier Classification, the Phase I Report pursuant to 310 CMR 40.1403(3)(e); and
 - b. for an initial Tier Classification or reclassification, documentation in support of the LSP Opinion classifying the disposal site as Tier I or Tier II;

(c) the requirements of 310 CMR 40.1403(6) do not apply to Tier Classification Extension or Tier Classification Transfer Submittals pursuant to 310 CMR 40.0560(7) and (8), respectively.

(7) Within 30 days after recording and/or registering any original, amended, released or terminated Activity and Use Limitation pursuant to 310 CMR 40.1070 through 40.1080, the following requirements shall be met to inform local officials and the public of the limitations which apply to activities and/or uses of the property subject to the Activity and Use Limitation:

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- (a) a copy of the recorded and/or registered Activity and Use Limitation shall be provided to:
 1. the Chief Municipal Officer;
 2. the Board of Health;
 3. the Zoning Official; and
 4. the Building Code Enforcement Official in the community(ies) in which the property subject to such Activity and Use Restriction is located.
 - (b) a public notice pursuant to 310 CMR 40.1403(2)(b) which indicates the recording and/or registering of the original, amended, released or terminated Activity and Use Limitation shall be published in a newspaper that circulates in the community(ies) in which the property subject to the Activity and Use Limitation is located.
 1. This notice shall be in a form established by the Department for such purpose and shall include, but not be limited to:
 - a. the name, address, and Release Tracking Number(s) of the disposal site associated with the Activity and Use Limitation;
 - b. the type of Activity and Use Limitation;
 - c. information about where the Activity and Use Limitation instrument and disposal site file can be reviewed; and
 - d. the name, address and telephone number of the person recording and/or registering the Activity and Use Limitation from whom the public can obtain additional information.
 2. A copy of this public notice shall be submitted to the Department within seven days of its publication.
- (8) For any disposal site where the Permanent Solution relies on the exception provided by 310 CMR 40.1013(1)(c) from requirements for an Activity and Use Limitation, a copy of the Permanent Solution Statement shall be filed with the following offices:
- (a) where a public way is part of the disposal site, the public agency(ies) owning and operating that public way;
 - (b) where a Rail Right-of-way is part of the disposal site, the owner and operator of the rail line. For Rail Rights-of-way subject to the requirements of M.G.L. c. 161C, a copy of the Permanent Solution Statement shall also be filed with the Massachusetts Department of Transportation; and
 - (c) the notifications required by 310 CMR 40.1403(8)(a) and (b) shall be made concurrently with the notification to local officials of the availability of Permanent Solution Statements pursuant to 310 CMR 40.1403(3)(f).
- (9) Local officials or ten or more residents of a community(ies) in which a disposal site is located or in any other communities which are, or are likely to be, affected by a disposal site may request an opportunity for Public Involvement Activities related to any Immediate Response Action conducted pursuant to 310 CMR 40.0410 or Release Abatement Measure conducted pursuant to 310 CMR 40.0440. Such request shall be made in writing to the person(s) conducting the response actions and copied concurrently to the Department.
- (a) Following the receipt of such written request, the person(s) conducting response actions shall, at a minimum:
 1. contact the people making the request and appropriate local officials to identify their concerns about the response action;
 2. provide information to those making the request about the nature and extent of contamination (to the extent known at the time) and about implemented and planned response actions;
 3. provide appropriate opportunities for public comment, which may include but are not limited to, holding a public meeting or providing an opportunity for the public to submit written comments to the person(s) conducting response actions; and
 4. establish a public information repository in the community(ies) in which the disposal site is located or in any other community(ies) that is, or is likely to be, affected by the disposal site;

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(b) when holding a public meeting in response to a request for Public Involvement Activities, the person(s) conducting response actions shall hold such meeting at a time and place convenient to the people requesting the opportunity for comment, and shall publicize the meeting in advance in such community and by providing written notice pursuant to 310 CMR 40.1403(2)(a) to the persons requesting the Public Involvement Activities and appropriate local officials.

(c) when providing the opportunity to the public to submit written comments, the person(s) conducting response actions shall:

1. notify the persons requesting the Public Involvement Activities and appropriate local officials using a written notice pursuant to 310 CMR 40.1403(2)(a);
2. provide a public comment period of a minimum of 20 days from the date of notification of the Immediate Response Actions or Release Abatement Measures;
3. consider and, where relevant and appropriate, incorporate comments into plans for response actions;
4. prepare a written summary of and response to relevant comments within 30 days of the last day of the public comment period, unless an alternative procedure for summarizing comments is agreed to by the person(s) conducting response action(s) and the persons requesting Public Involvement Activities; and
5. include the written summary of and response to comments in the next related response action submittal to the Department and place it in the public information repository;

(d) Notwithstanding the provisions of 310 CMR 40.1403(9), nothing shall prohibit:

1. person(s) conducting response actions and the persons who requested Public Involvement Activities from agreeing to Public Involvement Activities or procedures for providing public comment on response action submittals in addition to or in *lieu* of those specified in 310 CMR 40.1403(9)(b) or (c); or
2. persons from petitioning for the designation of the disposal site where Public Involvement Activities are being conducted pursuant to 310 CMR 40.1403(9) as a Public Involvement Plan Site pursuant to 310 CMR 40.1404;

(e) The public involvement opportunities provided pursuant to 310 CMR 40.1400 shall not unreasonably delay implementation of response actions at the disposal site;

(f) Assessment may proceed during the public comment period;

(g) Except as provided in 310 CMR 40.1403(9)(h), remedial actions that are the subject of the public comment period shall not proceed until the close of the public comment period;

(h) Time critical elements of an Immediate Response Action Plan may be conducted prior to the close of the public comment period if delaying the remedial actions would exacerbate release or site conditions or endanger health, safety, public welfare or the environment; and

(i) Unless otherwise specified by the Department, the public involvement provisions of 310 CMR 40.1403(9) shall not apply to Release Abatement Measures conducted pursuant to 310 CMR 40.1067(4) after a valid Permanent Solution Statement has been submitted to the Department.

(10) Any time environmental samples are taken at a property in the course of investigating a release for which a notification to the Department pursuant to 310 CMR 40.0300 has been made on behalf of someone other than the owner of the property, the person(s) conducting the response actions shall:

(a) provide the property owner with a written notice pursuant to 310 CMR 40.1403(2)(a) on a form established by the Department for such purpose which explains that the property owner will be provided the results of the sample analyses; such written notice shall be provided to the property owner :

1. as soon as possible, but no more than seven days after the date of sampling, when conducted as part of an Immediate Response Action to address releases defined at 310 CMR 40.0311; or
2. prior to the date of sampling when conducted as part of any other response action;

(b) within 30 days of the date the sample results are issued by the laboratory, provide the property owner with:

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1. the results of the sample analyses of samples from the property owner's property and a written notice that additional documentation associated with the samples, such as that listed at 310 CMR 40.0017(3), will be provided to the property owner within 30 days of receipt of a request for such documentation. The person providing written notice shall provide such additional documentation to the property owner within 30 days of receipt of a request;
 2. a statement that public involvement opportunities are available under 310 CMR 40.1403(9) and, if the site is tier classified, under 310 CMR 40.1404;
- (c) provide to the Department with the next required MCP submittal the results of and additional documentation associated with any sampling subject to the notice requirements of 310 CMR 40.1403(10), a copy of the written notice required by 310 CMR 40.1403(10)(a), and a copy of any alternative schedule for providing sampling results established pursuant to 310 CMR 40.1403(10)(d); and
- (d) Notwithstanding the provisions at 310 CMR 40.1403(10)(b), when sampling at a property will occur on an ongoing basis, an alternative schedule may be established for providing the results of multiple sampling events to a property owner, provided that such schedule is established in writing and agreed to by the property owner. The person(s) conducting the response actions shall include with the results of the sample analyses a written notice that additional documentation associated with the samples, such as that listed at 310 CMR 40.0017(3), will be provided to the property owner within 30 days of receipt of a request for such documentation. The person providing written notice shall provide such additional documentation to the property owner within 30 days of receipt of a request.
- (11) Any person conducting an Immediate Response Action to prevent, control, or eliminate an Imminent Hazard pursuant to 310 CMR 40.0322 and 40.0426 or to address a Critical Exposure Pathway pursuant to 310 CMR 40.0414(3) through (4) shall provide notice as specified below of such response actions to owners and/or operators, where such owners and/or operators are not the party conducting the Immediate Response Action, and to persons who may experience significant health or safety impacts from the disposal site that is being addressed by the Immediate Response Action (*i.e.*, Affected Individuals as defined in 310 CMR 40.0006).
- (a) Unless otherwise specified by the Department, notification shall be made orally or in writing as soon as possible but not later than 72 hours after confirmation that an Imminent Hazard or Critical Exposure Pathway exists;
 - (b) Where initial notification is provided orally, it shall be followed by a written notice pursuant to 310 CMR 40.1403(2)(a) within seven days of the oral notification;
 - (c) Written notice shall be provided on a form established by the Department for such purpose that includes information about the purpose, nature and expected schedule for the commencement and duration of the Immediate Response Action, and a statement of the Public Involvement Activities available under 310 CMR 40.1403(9) and, if applicable, 310 CMR 40.1404;
 - (d) Where the Immediate Response Action involves assessment or remedial actions at multi-unit or industrial or commercial buildings, in addition to notifying Affected Individuals, the owners or operator of the buildings shall post the notice provided to them by the person conducting the Immediate Response Action in a location where it will be visible to individuals who are routinely present in such building(s) for the duration of the Immediate Response Action;
 - (e) Upon completion of the Immediate Response Action conducted to prevent, control, or eliminate an Imminent Hazard or to address a Critical Exposure Pathway, the person conducting the Immediate Response Action shall, concurrently with submitting the Immediate Response Action Completion Statement to the Department, provide those same owners and/or operators and Affected Individuals for whom notification pursuant to 310 CMR 40.1403(11)(a) through (d) was required with a written notice on a form established by the Department for such purpose pursuant to 310 CMR 40.1403(2)(a) that includes a copy of the Immediate Response Action Completion Statement; and
 - (f) A copy of the written notice required by:
 1. 310 CMR 40.1403(11)(c) shall be submitted to the Department with the Immediate Response Action Status Report that follows the commencement of the Immediate Response Action, unless an Immediate Response Action Completion Statement is submitted prior to the date the such Status Report is due, in which case, the notice shall be submitted with the Immediate Response Action Completion Statement;
 2. required by 310 CMR 40.1403(11)(e) shall be submitted to the Department with the Immediate Response Action Completion Statement.

40.1404: Public Involvement Plan Site Designation

- (1) The following disposal sites shall be eligible for PIP Site Designation:
 - (a) any disposal site that has been tier classified pursuant to 310 CMR 40.0500;
 - (b) any disposal site that is deemed a default Tier ID site pursuant to 310 CMR 40.0502;

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- (c) any disposal site at which response actions are being conducted in accordance with 310 CMR 40.0112 and for which a RCRA Facility Assessment has been completed;
 - (d) any disposal site at which response actions are being conducted in accordance with 310 CMR 40.0113 and for which either a RCRA Facility Assessment or equivalent assessment in accordance with 310 CMR 30.000: *Hazardous Waste* has been completed; or
 - (e) any disposal site at which response actions are being conducted in accordance with 310 CMR 40.0114 and for which an Initial Site Assessment or equivalent assessment in accordance with 310 CMR 19.00: *Solid Waste Management* has been completed.
- (2) Except as provided in 310 CMR 40.1404(3), a disposal site shall not be eligible for designation as a PIP Site if the Department issued or received any of the following:
 - (a) a No Further Action determination letter issued by the Department pursuant to 310 CMR 40.000;
 - (b) a determination by the Department that the site is exempt from the transition requirements pursuant to 310 CMR 40.0637;
 - (c) a Permanent Solution Statement pursuant to 310 CMR 40.1000;
 - (d) an LSP Evaluation Opinion, Consultant of Record No Further Action Statement or PRP No Further Action Statement pursuant to 310 CMR 40.0600; or
 - (e) a Waiver Completion Statement pursuant to 310 CMR 40.537.
- (3) Notwithstanding 310 CMR 40.1404(2), a disposal site may be subject to PIP Site Designation or the continuation of PIP activities under an existing PIP Site Designation if the Department:
 - (a) specifies that a new or continued PIP Designation is appropriate for remedial actions conducted pursuant to 310 CMR 40.1067; or
 - (b) finds that a determination or submittal listed in 310 CMR 40.1404(2)(a) through (e) is invalid and that further response actions are required at the disposal site to which the determination or submittal applied.
- (4) Petitions shall be submitted to the party responsible for conducting response actions at the disposal site. For disposal sites where a RP, PRP or Other Person is conducting response actions, a copy of the petition shall also be sent concurrently to the Department.
- (5) Petitions submitted shall:
 - (a) identify the disposal site to be designated, by name, address, and Release Tracking Number(s) if known;
 - (b) include a request to designate the disposal site as a PIP Site pursuant to M.G.L. c. 21E, § 14(a) and the Massachusetts Contingency Plan, 310 CMR 40.1404; and
 - (c) include the signatures and addresses of at least ten persons signing the petition. These names and addresses shall also be legibly printed so that they can be used to respond to the petition.
- (6) Upon receipt of a petition for a disposal site eligible for PIP Site Designation pursuant to 310 CMR 40.1404(1) through (3) signed by ten or more residents of a municipality in which the disposal site is located, or of a municipality potentially affected by the disposal site, the disposal site shall be designated a PIP Site. Following PIP Site Designation, the person(s) conducting response action shall inform the petitioners of such Designation pursuant to 310 CMR 40.1404(7).
- (7) All petitioners shall be informed in writing by the person(s) conducting response actions as to whether or not the disposal site has been designated as a PIP Site within 20 days of receipt of such a petition. If the disposal site is ineligible for PIP Site Designation pursuant to 310 CMR 40.1404(1) through (3), then the reason why the site is ineligible for PIP Site Designation shall be stated in the response letter to the petitioners. If the Department is not conducting response actions at the disposal site, a copy of the response letter shall be concurrently sent to the Department.
- (8) While petitions to designate a disposal site as a PIP Site shall be accepted for any Tier I, Tier II or Tier ID disposal site, the submission of such a petition by itself shall not alter the classification of a disposal site pursuant to 310 CMR 40.0500.

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- (9) The submittal of a PIP petition shall not alter the order in which the Department initiates response actions at a disposal site.
- (10) When PIP Site Designation is terminated pursuant to 310 CMR 40.1405(7), a new PIP Site Designation petition shall be required to re-designate the disposal site as a PIP Site.
- (11) A new PIP Site Designation petition is not required for a disposal site that is currently a PIP Site at which a new release or threat of release for which notification is required pursuant to 310 CMR 40.0300 occurs. The person(s) conducting response actions at the disposal site shall inform the individuals on the mailing list established for the PIP Site of any such new release or threat of release using a written notice pursuant to 310 CMR 40.1403(2)(a).
- (12) A PIP petition may be withdrawn prior to the development of a draft Public Involvement Plan. Withdrawals shall be submitted in writing to the person(s) conducting response actions and shall include the site name, Release Tracking Number, an explanation for the withdrawal, and the signatures of a majority of the original petitioners. Within 14 days of the date of receipt of the withdrawal request, the person(s) conducting response actions shall provide a copy of the request to the Department.

40.1405: Additional Public Involvement Activities Required for Public Involvement Plan Sites

- (1) Public Involvement Activities undertaken at PIP Sites are those taken in addition to the Public Involvement Activities required for all disposal sites and are designed to involve the public in decisions regarding response actions.
- (2) Public Involvement Activities conducted at PIP Sites shall focus on the community(ies) in which the disposal site is located and shall include other communities which are, or are likely to be, affected by the disposal site.
- (3) Concerns, information, and comments from the public about the disposal site shall be solicited, considered, addressed and, where relevant and material to response actions, incorporated into decisions regarding response actions at the disposal site.
- (4) Public Involvement Activities required at PIP Sites shall pertain to those response actions conducted after the submission of the PIP petition, except at disposal sites where response actions beyond Phase I are conducted prior to Tier Classification. At disposal sites where response actions beyond Phase I are conducted prior to Tier Classification, Public Involvement Activities shall pertain to all response actions conducted, provided that the PIP petition is received within 30 days of publication of the public notice required in 310 CMR 40.1403(6) or 40.0510(3).
- (5) Upon designation of a disposal site as a PIP Site:
 - (a) within 80 days of receiving a PIP petition for an eligible disposal site a draft site-specific Public Involvement Plan shall be prepared, and a public meeting shall be held to present the draft Public Involvement Plan, solicit public comment on the draft Public Involvement Plan, and provide information about disposal site conditions. This public meeting shall be held at a time and location convenient to the affected public. Residents of the potentially affected community(ies) shall be informed of the public meeting by the following activities:
 1. a public notice pursuant to 310 CMR 40.1403(2)(b) shall be published at least 14 days prior to the meeting; and
 2. a copy of the public notice announcing the public meeting shall be mailed to each petitioner, and the Chief Municipal Officer(s) and Board(s) of Health in the community(ies) in which disposal site is located and in any other community(ies) that is, or is likely to be, affected by the disposal site;
 - (b) the draft Public Involvement Plan shall be made available for public review on the date of the public meeting to present it and a public comment period that runs for a minimum of 20 days from the date of the public meeting shall be provided;

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- (c) the Public Involvement Plan shall be finalized within 30 days of the close of the public comment period on the draft Public Involvement Plan;
 - (d) a summary of comments received on the draft Public Involvement Plan shall be developed that contains the comments received, identifies comments that have been incorporated and provides an explanation for comments that were not incorporated into the final Public Involvement Plan. The copy of the response to comments and the final Public Involvement Plan shall be made available in the information repository(ies) established for the disposal site pursuant to 310 CMR 40.1405(6)(j);
 - (e) if the Department is not conducting response actions at the disposal site, copies of all the documents related to the public involvement process shall be submitted to the Department upon their availability; and
 - (f) the Public Involvement Plan shall be implemented throughout the response action process.
- (6) A Public Involvement Plan shall, without limitation:
- (a) identify local concerns and sources of information through interviews and other appropriate measures and ensure that the implementation of the Public Involvement Plan reflects such concerns and information and the nature and level of relevant public interest;
 - (b) inform the public about the response action(s) and public involvement processes by methods including, but not limited to, providing notification of the public of a public meeting a minimum of 14 days in advance of the meeting;
 - (c) provide the name, address and phone number of a contact person for the person(s) conducting response actions;
 - (d) provide disposal site background information, including, but not limited to, a site description and history, material environmental assessment history, and relevant public involvement history;
 - (e) provide opportunities to comment on response actions by holding a minimum 20 day comment period on all submittals for response actions occurring following PIP designation, with the following qualifications:
 - 1. any public comment period may be extended, if requested by the public, for a minimum of an additional 20 days;
 - 2. a modified Phase II Scope of Work, IRA Plan, RAM Plan, or sampling plan shall be subject to an additional comment period if such modifications substantially alter or expand the previous Phase II Scope(s) of Work, IRA Plan(s), RAM Plan(s), or previous sampling plan(s);
 - 3. except as provided in 310 CMR 40.1405(6)(e)4., remedial actions that are the subject of the public comment period shall not proceed until the close of the public comment period;
 - 4. time critical elements of an Immediate Response Action Plan may be conducted prior to the close of the public comment period if delaying the remedial actions would exacerbate release or site conditions or endanger health, safety, public welfare or the environment;
 - 5. a comment period is not required for a remedial action inspection and monitoring report or status report; and
 - 6. assessment may proceed during the public comment period;
 - (f) incorporate relevant and material public comments into the planning and implementation of response actions;
 - (g) provide a summary of all public comments received during any comment period within 60 days of the close of the comment period that contains the comments received, identifies comments that have been incorporated and provides an explanation for comments that were not incorporated into the applicable plan;
 - (h) ensure that Public Involvement Activities are undertaken throughout the response action process and that a schedule is developed for conducting these activities;
 - (i) establish a public information repository(ies) in the community(ies) in which the disposal site is located and in any other communities which are, or are likely to be, affected by the disposal site, with a location and hours that are convenient to the public; and

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- (j) maintain a mailing list that includes at a minimum:
 1. all individuals who ask to receive information about the disposal site;
 2. the Chief Municipal Officer(s);
 3. the Board (s) of Health; and
 4. the Department;

(7) Public Involvement Activities shall be terminated, modified, expanded or reduced as provided below:

- (a) Unless otherwise provided in a Public Involvement Plan or specified by the Department, a designation of a disposal site as a PIP Site pursuant to 310 CMR 40.1404 shall terminate following the implementation of the PIP activities applicable to the Permanent Solution Statement for the disposal site pursuant to 310 CMR 40.1000;
- (b) The person(s) conducting response actions, ten or more residents of a community(ies) in which a disposal site is located or in any other community(ies) which are, or are likely to be, affected by a disposal site may propose to terminate the designation of a disposal site as a PIP Site, or to modify, expand or reduce Public Involvement Activities in a Public Involvement Plan. If such a proposal is made to terminate, expand or reduce Public Involvement Activities or terminate designation of a disposal site as a PIP Site, the person(s) conducting response actions shall provide a written notice pursuant to 310 CMR 40.1403(2)(a) to the parties on the mailing list for the disposal site, the local Board(s) of Health and Chief Municipal Officer(s) in the community(ies) in which the disposal site is located and in any other communities that are, or are likely to be, affected by the disposal site and publish a public notice pursuant to 310 CMR 40.1403(2)(b). Such written and public notices shall:
 1. identify the proposed changes to the Public Involvement Activities;
 2. provide a 20 day comment period for the proposed modification, expansion, reduction or termination of the Public Involvement Activities or termination of the PIP Site Designation, whichever is applicable; and
 3. identify the location of the public information repository where the proposed changes have been made available for review;
- (c) The person(s) conducting response actions shall review any comments received and if applicable, revise the Public Involvement Plan developed pursuant to 310 CMR 40.1404 to incorporate as appropriate proposed revisions as well as any comments received on the proposed revisions;
- (d) A letter that sets forth the revised Public Involvement Activities or termination of the PIP Site Designation shall be placed in the information repository and concurrently sent to any person(s) who responded to written notice made pursuant to 310 CMR 40.1405(7)(b).
- (e) Upon termination of a PIP Site Designation, the person(s) conducting response actions at the disposal site shall no longer be required to conduct Public Involvement Activities pursuant to the Public Involvement Plan or 310 CMR 40.1405.

40.1406: Notification to Owners of Property within the Boundaries of a Disposal Site

(1) Any person(s) conducting response action(s) at a disposal site shall provide written notice on a form established by the Department for such purpose and in accordance with the requirements of 310 CMR 40.1403(2)(a) to the owner(s) of property(ies) within the boundaries of the disposal site as depicted and/or described pursuant to 310 CMR 40.0835(4)(b) and/or 310 CMR 40.1056(2)(a) that said property(ies) (or a portion of the property(ies)) is within the disposal site boundaries. The person(s) conducting response actions at the disposal site shall:

- (a) provide the following information in or with the written notice:
 1. a copy of the disposal site map or description of disposal site boundaries prepared pursuant to 310 CMR 40.0835(4)(b) and/or 310 CMR 40.1056(2)(a) showing or describing the boundaries of the disposal site;
 2. a copy of the conclusions prepared pursuant to 310 CMR 40.0835(4)(i) or 310 CMR 40.1056;
 3. a statement that Public Involvement Activities are available under 310 CMR 40.1400; and

40.1406: continued

4. the name, address and telephone number of a contact person representing the person(s) conducting response actions who may be contacted for additional information on the disposal site;
 - (b) provide such written notice concurrently with submitting the Phase II Report, pursuant to 310 CMR 40.0835, or the Permanent or Temporary Solution Statement for the disposal site, pursuant to 310 CMR 40.1000, to the Department, whichever is submitted sooner:
 1. for written notice provided concurrently with submitting the Phase II Report to the Department, additional written notice of the Permanent or Temporary Solution for the disposal site shall be subsequently provided pursuant to 310 CMR 40.1406(3);
 2. for written notice provided concurrently with submitting the Permanent or Temporary Solution Statement for the disposal site to the Department, such written notice shall also include a statement explaining how to obtain additional documentation of the Permanent or Temporary Solution.
 - (c) if the number of property owners to receive the written notices exceeds 50, provide a written notice pursuant to 310 CMR 40.1403(2)(a) to property owners only after the Board(s) of Health in the community(ies) in which the properties are located and the Department receive written notice.
- (2) Any person(s) conducting response actions who provided written notice to a property owner(s) pursuant to 310 CMR 40.1406(1) who later determines as the result of an additional response action(s) that a property is not within the boundaries of the disposal site shall make written notice to said property owner(s) within 30 days of receiving the additional information upon which such a determination is based. Such written notice shall include:
- (a) the basis of the determination;
 - (b) an updated copy of the disposal site map prepared pursuant to 310 CMR 40.0835(4)(b) or 40.1056(2)(a) showing the revised boundaries of the disposal site; and
 - (c) a statement explaining how to obtain additional documentation that supports the determination.
- (3) Any person(s) conducting response action(s) who provided written notice to a property owner(s) upon submission of the Phase II Report pursuant to 310 CMR 40.1406(1) shall subsequently upon achievement of a Permanent or Temporary Solution for the disposal site provide a written notice pursuant to 310 CMR 40.1403(2)(a) of the Permanent or Temporary Solution to the owners of those properties for which notice was previously provided concurrently with submitting the Permanent or Temporary Solution to the Department. Such written notice shall include:
- (a) a copy of the conclusions prepared pursuant to 310 CMR 40.1056;
 - (b) an updated copy of the disposal site map, if the identified disposal site boundaries have changed since the previous notice;
 - (c) the name, address and telephone number of a contact person representing the person(s) conducting response actions who may be contacted for additional information on the disposal site; and
 - (d) a statement explaining how to obtain additional documentation of the Permanent or Temporary Solution.
- (4) If the number of property owners that would receive written notices pursuant to 310 CMR 40.1406 exceeds 50, alternative means of providing notice to property owners (*e.g.*, use of a public notice published in the local newspaper) may, upon approval by the Department, be used to fulfill the requirements of 310 CMR 40.1406. In such case, written notice to the Board(s) of Health in the community(ies) in which the properties are located shall be provided pursuant to 310 CMR 40.1406(1)(c) prior to providing notice to the property owners, and such written notice shall also inform the Board(s) of Health of the alternative means by which notice will be provided to the property owners.
- (5) A copy of all written notices required by 310 CMR 40.1406 shall be submitted to the Department with the corresponding Phase II Report or Permanent or Temporary Solution Statement.

(40.1407: Community Site Inspection: Reserved)

40.1450: Technical Assistance Grants

310 CMR 40.1450 through 40.1499, cited collectively as 310 CMR 40.1450, specifies terms and conditions of eligibility for, and use of, technical assistance grants.

40.1451: Purpose and Scope of Technical Assistance Grants

- (1) The Department may provide for limited grants in order to:
 - (a) provide access to expert advice and technical assistance;
 - (b) encourage more effective participation in the response action process by promoting access to and use of information; and
 - (c) allow issues of concern related to the disposal site to be addressed.

40.1452: Grant Availability

- (1) Grants shall be made available to affected persons described in 310 CMR 40.1453, subject to the provisions of 310 CMR 40.1451 through 40.1462 and to the availability of funding.
- (2) For each disposal site, there shall be no more than one grant available per funding round.
- (3) Grants may be made to single organizations for technical assistance activities at more than one disposal site. However, no applicant shall receive more than one grant in a funding round.
- (4) Grant Amounts.
 - (a) At the start of each funding round, the Department shall designate a maximum amount for any single grant.
 - (b) Any other source of funding obtained by an applicant for expert advice or technical assistance shall not be subtracted from any specified grant maximum designated by the Department provided the total of grant funds received by the grantee from all sources shall not exceed 100% of the total cost of the proposed project.
 - (c) The maximum grant amount(s) shall be set forth in the notice to be published by the Department pursuant to 310 CMR 40.1455.
- (5) Disposal sites that are eligible for Technical Assistance Grants are:
 - (a) any disposal site classified as Tier I or Tier II pursuant to 310 CMR 40.0500;
 - (b) any Massachusetts disposal site listed on the National Priority List; and
 - (c) any site deemed by the Department to be Adequately Regulated pursuant to 310 CMR 40.0110 *et. seq.*, and for which response actions have not been completed.
- (6) No Technical Assistance Grant Agreement shall be made available to a Grantee for any site for which:
 - (a) a valid Permanent Solution Statement has been submitted to the Department by the party(ies) conducting response actions at a tier classified site; or
 - (b) a Waiver Completion Statement has been submitted to the Department by the party(ies) conducting response actions.

40.1453: Eligible Applicants

- (1) The Department may provide for limited grants to be given to the following affected persons:
 - (a) any group of individuals who may be affected by oil and/or hazardous material from any eligible disposal site, or
 - (b) any city, town or agency thereof which may be affected by oil and/or hazardous material from any eligible disposal site, or
 - (c) any district or other body politic that owns or operates a public water supply system which may be affected by oil and/or hazardous material from any eligible disposal site.
- (2) Applicants who do not exist as a legal entity with legal authority to receive, disburse, and be responsible for funds at the time the grant is awarded shall be ineligible.

40.1453: continued

- (3) Any applicant which unreasonably restricts the meaningful participation and involvement of affected individuals shall be ineligible to receive a grant.
- (4) Any person liable or potentially liable pursuant to M.G.L. c. 21E, § 5 and any Other Person taking a response action at a disposal site pursuant to M.G.L. c. 21E, § 4 shall be ineligible to receive a grant for that disposal site.

40.1454: Eligible Activities

- (1) Eligible activities for grants may include, but are not limited to:
 - (a) interpretation, review or critique of technical analyses related to a disposal site as presented in reports developed by or on behalf of the Department, RPs, PRPs, Other Persons, or by other public or private entities. Such reports may include, but are not limited to:
 - 1. the scope of work for Phase II; the Phase II Report; the Phase III - Remedial Action Plan; the Phase IV - Remedy Implementation Plan, As-Built Construction Report, and the Final Inspection Report; the Phase V - Inspection and Monitoring Report; and
 - 2. sampling and analysis plans;
 - (b) observation of assessment, sampling or response action activities conducted by the Department, RP, PRP or Other Person. Such observation shall be conducted in accordance with 310 CMR 40.1454(3);
 - (c) analysis of split samples taken by the Department, RP, PRP or Other Person, provided that the grantee's consultant performs testing and analysis which is identical to that performed by the Department, RP, PRP or Other Person;
 - (d) health surveys to gather existing information through interviews with, and questionnaires answered by, individuals who may be affected by the disposal site;
 - (e) legal advice concerning the public's involvement in response actions;
 - (f) public education activities; and
 - (g) a reasonable share of funding for voluntary mediation concerning response actions for the disposal site.
- (2) The following activities shall be ineligible for grants:
 - (a) development of new environmental data;
 - (b) development of new medical data;
 - (c) organizational development or membership building, except such activities that are incidental to performance of eligible activities;
 - (d) litigation or any other adversarial legal proceeding;
 - (e) partisan political activity or any activity to further the election or defeat of any candidate for public office; and
 - (f) taking or arranging for any response actions at the disposal site.
- (3) The following conditions shall be met before initiating eligible activities:
 - (a) grantees shall obtain approval from the person(s) responsible for the conduct of the response action at the disposal site and from the owner or operator of the disposal site prior to conducting activities at the disposal site under 310 CMR 40.1454(1)(b) and (c);
 - (b) grantees shall comply with the health and safety plan and all operational protocols established for the disposal site; and
 - (c) grantees shall not interfere with the efficient, expeditious, and safe conduct of response actions at the disposal site.

40.1455: Notice Provisions

- (1) For each funding round, the Department shall publish a notice in the *Environmental Monitor* and on the Department's web site announcing the availability of grants, application procedures and deadlines. The availability of grants shall also be announced by the Department with any List of Disposal Sites published pursuant to 310 CMR 40.0168.
- (2) Information about the availability of technical assistance grants shall also be published by the person(s) responsible for the conduct of the response action at the disposal site as part of other public notices published pursuant to this Contingency Plan.

40.1456: Grant Application Process

Grant applications shall be received and evaluated by the Department in accordance with the following procedures:

- (1) The Department may establish one or more funding rounds and application periods each year. The Department may extend any application period at its discretion. Should an application period be extended, the Department shall publish notice thereof in the *Environmental Monitor* and on the Department's web site.
- (2) Applications received after the close of the application period shall not be considered for a grant in that funding round.
- (3) Grant applications shall be submitted on a Technical Assistant Grant Application Form provided by the Department, together with any other documentation required by the Department.
- (4) Any applicant applying for a grant shall submit a Technical Assistance Grant Application Form which shall include the following types of information:
 - (a) a detailed description of the applicant's proposed project and a schedule for completing the project;
 - (b) a description of the applicant's efforts to identify and include affected individuals, including the applicant's efforts to publicize its interest in applying for the grant and in soliciting interest by others in joining its efforts;
 - (c) a description of the impacts of the disposal site on health, safety, public welfare, and the environment;
 - (d) a description of the applicant's history and experience, if any, in conducting activities similar to those proposed in the application;
 - (e) a copy of the applicant's by-laws, if any;
 - (f) documentation that the applicant will meet the requirements set forth in 310 CMR 40.1453;
 - (g) information and documentation describing the background and qualifications of the types of consultants to be employed by the applicant;
 - (h) a description of the applicant's procedures for supervision and accountability of experts and for management of grant-funded activities;
 - (i) a description of the applicant's procedures for financial management and accounting of grant funds;
 - (j) an explanation and schedule indicating how the requirements of 310 CMR 40.1453(2) shall be met if a grant is awarded to the applicant;
 - (k) a description of how the grantee will measure the project's success in meeting its goals and objectives, including a list of specific performance standards that will be used in that evaluation process; and
 - (l) if the applicant has ever received a technical assistance grant or grants pursuant to this Contingency Plan, a description of the relationship between any incomplete or unfinished project or projects for which said grant funds were received and the project for which the applicant is currently applying for a grant.
- (5) Within each funding round, the Department shall designate a date by which all Applications shall be submitted to the Department.

40.1457: Grant Selection Process

- (1) Grant Applications shall be evaluated based upon the criteria set forth in the application package which shall consider without limitation: the proposal's potential to address a balance between technical education, and community outreach and participation; and the relative impact of the disposal site location on health, safety, public welfare and the environment (including consideration of whether the disposal site location is within an Economic Target Area or area designated as an Environmental Justice Community).

40.1457: continued

(2) In each funding round, the Department shall rank the applications according to a weighted value assigned for the criteria set forth in the application package. This ranking shall be used by the Department to establish a grant funding priority list that shall indicate which grants are likely to be funded during that funding round. The Department may determine the number of grants on the grant funding priority list based on the following considerations:

- (a) the Department's administrative capacity to manage the technical assistant grant program at the time the grant funding priority list is established; and
- (b) the total amount of funding available for the grant program in a given round.

(3) Upon final determination of the Department's grant funding priority list, the Department shall publish the list in the *Environmental Monitor* and on the Department's web site.

(4) Following publication of the Department's funding priority list, a copy of the applicant's evaluation sheet will be made available upon written request.

(5) Any applicant on the grant funding priority list may be bypassed for an award if the Department determines that the applicant is for any reason unable to accept or receive the grant during that funding cycle. Any application that is bypassed shall not retain its priority rating for future funding rounds. The next highest ranked application which was otherwise not likely to be funded shall be added to the grant funding priority list for each bypassed application. Each grant funding priority list shall be in effect only during the funding round in which it was established.

(6) Once the grant is awarded, the applicant shall be referred to as the grantee. A grant shall be deemed awarded when a Grant Agreement is entered into by the Department and the grantee, and the Grant Agreement has been accepted by the Office of the Comptroller. The Grant Agreement shall consist of the grant offer as executed by the Department and the grant acceptance as executed by the grantee as well as any and all terms and conditions under which the grant is being awarded to the grantee.

40.1458: Payment Method

Payment of a grant award to a grantee shall be made as reimbursement for costs incurred by the grantee and shall be subject to 310 CMR 40.1450 through 40.1462. The terms and conditions of payment, and all required supporting documentation to be submitted by the grantee prior to payment shall be set forth in the Grant Agreement.

40.1459: Fiscal Management of Grants

(1) The grantee is responsible for complying with 310 CMR 40.1451 through 40.1462 and the terms and conditions contained in the Grant Agreement. This responsibility shall not be delegated, transferred, or assigned by the grantee.

(2) The grantee shall establish for its project a separate account in a bank with insurance coverage by the Federal Deposit Insurance Corporation (FDIC). Project funds and all interest earned on such funds shall be credited to said account and all project payments shall be made from said account.

(3) The grantee shall maintain a financial management system which shall provide for effective control over and accountability for all project funds. Grantees shall safeguard all such funds and ensure that they are used solely as authorized by the Grant Agreement.

40.1460: Records to be Maintained by Grantees

(1) The grantee shall maintain books, records, documents, and supporting evidence which shall fully explain the source, amount, and disposition of all grant funds.

(2) The grantee shall require its contractors, including contractors for professional services, to maintain accurate books, documents, papers, and records which are pertinent to the project.

40.1460: continued

- (3) The grantee and contractors of the grantee shall retain all records for a period of at least three years from the date of the final grant payment, and longer if required pursuant to 310 CMR 40.1460(5).
- (4) The grantee and its contractors shall make records available to the Department at all reasonable times for inspection, copying, and auditing.
- (5) The grantee and its contractors shall retain all records relating to disputes until all appeals, litigation, claims, or exceptions arising out of the grantee's project have been fully resolved.

40.1461: Inspection of Projects

The Department may, at a reasonable time and upon reasonable notice, conduct an inspection at any location where a grantee's project is being carried out.

40.1462: Honest Practices

- (1) The award and administration of grants shall be accomplished free from bribery, graft, kickbacks and other corrupt or illegal practices. The grantee bears the primary responsibility for the prevention, detection and cooperation in the prosecution of any such conduct. State administrative or other legally available remedies shall be pursued to the extent appropriate.
- (2) The grantee shall take appropriate actions with respect to any allegations or evidence of such illegality or corrupt practices which are brought to its attention. The grantee shall advise the Department immediately when such allegations or evidence comes to the grantee's attention, and shall periodically report to the Department the status and ultimate disposition of any such matter.
- (3) The grantee shall notify the Department of any material changes to the information provided in the Technical Assistance Grant Application, established in 310 CMR 40.1456(4) and 40.1456(6), at any point after the grant is awarded.
- (4) The Department may suspend or terminate grant payments or may revoke a grant at any time if the Department becomes aware of any allegations, evidence or appearance of illegality, corruption, or fraud associated with the award of the grant, compliance or noncompliance with 310 CMR 40.1451 through 40.1462 or the Grant Agreement between the Department and the grantee, or expenditure of funds for the project. In the event that a grant is revoked, the grantee shall be responsible for returning to the Commonwealth all grant funds.
- (5) The Department may make a factual determination at any time that a project is not being carried out in accordance with 310 CMR 40.0000, M.G.L. c. 21E, or any other law or regulation. If the Department makes such a determination, then the Department shall notify the grantee of the withdrawal of all grant funds, and may demand the return of the entire amount of the grant, or at the election of the Department, the unused portion of the grant funds, which shall be due immediately, or within five days of receipt of the notice by the grantee. Failure of the grantee to comply with 310 CMR 40.1462 shall subject the grantee to all civil, criminal and administrative remedies of the Commonwealth, including interest in the amount of 12% annum which shall accrue beginning on the fifth day after notice was received by the grantee.
- (6) If the Department makes a determination that any of the grant funds are not used in accordance with the terms of the grant or any of the provisions of this Contingency Plan, M.G.L. c. 21E, or any other law or regulation, then the grantee shall be held liable to the Commonwealth for the return of the entire amount of the grant, including interest at a rate of 12% per annum from the date of such determination.
- (7) If the Department has made a determination pursuant to 310 CMR 40.1462(4), and the grantee has not returned the amount of the grant upon demand plus any accrued interest, then at the Department's election, the demanded amount shall be deducted, plus any accrued interest, from the local aid appropriation to be made to any grantee that is a city, town, agency, or any district or other body politic that owns or operates a public water supply system pursuant to M.G.L. c. 58, § 20.

40.1462: continued

(8) The grantee shall include the following provisions in all contracts with its contractors which are funded, in full or in part, by a grant award:

- (a) The contractor shall not accept compensation, financial or otherwise, for his or her services pertaining to the disposal site from any person having significant conflicting or adverse interests to those of the grantee unless the circumstances are fully disclosed to, and agreed to, by the grantee and all other persons engaging the contractor with regard to the disposal site; and
- (b) In the event that the contractor has, develops or acquires any business association, direct or indirect financial interest, or other circumstances which is substantial enough to create an impression of influencing his or her judgement in connection with his or her performance of services provided to the grantee, the contractor shall fully disclose in writing to the grantee the nature of the business association, financial interest or circumstance. If the grantee objects to such business association, financial interest or circumstance, the contractor shall offer to terminate, at his or her discretion, either the business association, financial interest or circumstance, or his or her engagement with regard to the grantee.

REGULATORY AUTHORITY

310 CMR 40.0000: M.G.L. c. 21E.

(PAGES 1783 THROUGH 1794 ARE RESERVED FOR FUTURE USE.)

SUBPART P: **MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST**

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TABLE 1 - MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST (ALPHABETICAL LISTING)

NOTES:

The Massachusetts Oil and Hazardous Materials List (MOHML) contains oils and hazardous materials subject to 310 CMR 40.0000 and their reportable quantities (RQs) and reportable concentrations (RCs). These values are referred to in the notification requirements (310 CMR 40.0300). This list is organized alphabetically by chemical name and includes the unique Chemical Abstracts Service Number (CAS Number) assigned to a substance and references to other lists on which a substance appears identified by the following name source codes:

- < Name Source 1 - The Department of Transportation (DOT) Hazardous Materials List (49 CFR Part 172.101 Hazardous Materials Table)
- < Name Source 2 - The Resource Conservation and Recovery Act Appendix VIII List (40 CFR Part 261 - Appendix VIII Hazardous Constituents)
- < Name Source 3 - The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance and Waste Stream Lists (40 CFR Part 302 - Table 302.4)
- < Name Source 4 - The Extremely Hazardous Substance List as mandated by Superfund Amendments and Reauthorization Act, Title III, Section 302 (40 CFR Part 355 Appendices A and B)
- < Name Source 5 - DEP Allowable Ambient Limits (AALs) and Drinking Water Guidelines
- < Name Source 6 - The Massachusetts Substance List (MSL)(105 CMR 670.000: “*Right to Know*” Appendix A)
- < Name Source 7 - The Chemical Abstracts name, 9th collective period, 1972-1976
- < Name Source 8 - The EPA Right to Know list, Section 313 of the Emergency Planning and Community Right to Know Act of 1986 (40 CFR Part 372.65).

* Names Sources: 1 = DOT; 2 = RCRA; 3 = CERCLA HSL; 4 = SARA EHSL; 5 = DEP; 6 = MSL; 7 = 9CI; 8 = RTK

MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations		
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
ABATE	03383-96-8	10	6,1	1	10	100	1000
ACENAPHTHENE	83-32-9	10	3,6	0.02	10	4	3000
ACENAPHTHYLENE	208-96-8	100	3,7,6	0.04	0.04	2	10
ACENAPHTHYLENE, 1,2-DIHYDRO	83-32-9	10	3,6	0.02	6	4	3000
ACEPHATE	30560-19-1	10	5	1	10	100	1000
ACETAL	00105-57-7	10	1,6	1	10	100	1000
ACETALDEHYDE	00075-07-0	50	1,3,5,6,7,8	5	50	500	5000
ACETALDEHYDE, CHLORO-	00107-20-0	50	2,3,1,6	5	50	500	5000
ACETALDEHYDE, TRICHLORO-	00075-87-6	100	2,3,7,6	10	100	1000	10000

ACETAMIDE, 2-FLUORO	00640-19-7	10	3,7,2,1,4,6	1	10	100	1000
ACETAMIDE, N,N-DIMETHYL-	00127-19-5	10	7,6	1	10	100	1000
ACETAMIDE, N-(4-ETHOXYPHENYL)-	00062-44-2	10	2,3,7,6	1	10	100	1000
ACETAMIDE, N-(5,6,7,9-TETRAHYDRO-1,2,3,10-TETRAM..	00064-86-8	1	7,4	0.1	1	10	100
ACETAMIDE, N-(9H-FLUOREN-2-YL)-	00053-96-3	1	2,7,3,6,8	0.1	1	10	100
ACETAMIDE, N-(AMINOTHIOXOMETHYL)	00591-08-2	50	7,2,3,1,6	5	50	500	5000
ACETIC ACID	00064-19-7	100	3,6,7,1	10	100	1000	10000
ACETIC ACID (2,4,5-TRICHLOROPHENOXY)- COMPD. WI...	01319-72-8	100	7,3	10	100	1000	10000
ACETIC ACID GLACIAL	00064-19-7	100	1,6,3	10	100	1000	10000
ACETIC ACID, (2,4,5-TRICHLOROPENOXY)-, BUTYL ESTER	00093-79-8	50	7,3,6	5	50	500	5000

ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-	00093-76-5	10	2,7,1,3,6	1	10	100	1000
ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, 1-METHYL..	61792-07-2	50	7,3,6	5	50	500	5000
ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, 2-BUTOXY..	02545-59-7	50	7,3,6	5	50	500	5000
ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, 2-EHTYLH..	01928-47-8	50	7,3,6	5	50	500	5000
ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, COMPD. ...	02008-46-0	100	7,3,6	10	100	1000	10000
ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, COMPD. W..	03813-14-7	100	7,3,6	10	100	1000	10000
ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, COMPD. W..	06369-96-6	100	7,3,6	10	100	1000	10000
ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, COMPD. W..	06369-97-7	100	7,3,6	10	100	1000	10000
ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, ISOOCTYL..	25168-15-4	50	7,3,6	5	50	500	5000
ACETIC ACID, (2,4,5-TRICHLOROPHENOXY)-, SODIUM ...	13560-99-1	50	3	(See RCs of any listed constituents)			

* Names Sources: 1 = DOT; 2 = RCRA; 3 = CERCLA HSL; 4 = SARA EHSL; 5 = DEP; 6 = MSL; 7 = 9CI; 8 = RTK

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ACETIC ACID, (2,4-DICHLOROPHENOXY)-	00094-75-7	10	7,1,2,3,6,8	1	10	100	1000
ACETIC ACID, (2,4-DICHLOROPHENOXY)-, 1-METHYLETH..	00094-11-1	10	7,3,6	1	10	100	1000
ACETIC ACID, (2,4-DICHLOROPHENOXY)-, 1-METHYLPRO..	00094-79-1	10	7,3	1	10	100	1000
ACETIC ACID, (2,4-DICHLOROPHENOXY)-, 2-BUTOXYMET..	01320-18-9	10	7,3,6	1	10	100	1000
ACETIC ACID, (2,4-DICHLOROPHENOXY)-, ISOOCTYL ES..	25168-26-7	10	7,3,6	1	10	100	1000
ACETIC ACID, (2,4-DICHLOROPHENOXY)-, ISOPROPYL ...	00094-11-1	10	6	1	10	100	1000
ACETIC ACID, (2,4-DICHLOROPHENOXY)-, METHYL ESTER	01928-38-7	10	7,3,6	1	10	100	1000
ACETIC ACID, (2,4-DICHLOROPHENOXY)-, PROPYL ESTER	01928-61-6	10	7,3,6	1	10	100	1000
ACETIC ACID, (2,4-DICHLOROPHENOXY)-,2-BUTOXYETHY..	01929-73-3	10	7,3,6	1	10	100	1000

ACETIC ACID, (2,4-DICHLOROPHENOXY)-,4-CHLORO-2-B..	02971-38-2	10	7,3,6	1	10	100	1000
ACETIC ACID, (2,4-DICHLOROPHEONOXY)-, BUTYL ESTER	00094-80-4	10	7,3,6	1	10	100	1000
ACETIC ACID, 1,1-DIMETHYLETHYL ESTER	00540-88-5	100	7,3,6	10	100	1000	10000
ACETIC ACID, 1-METHYLETHYL ESTER	00108-21-4	10	7,1,5,6	1	10	100	1000
ACETIC ACID, 1-METHYLPROPYL ESTER	00105-46-4	100	1,3,6	10	100	1000	10000
ACETIC ACID, 2,4-DICHLOROPHENOXY-, SALTS AND EST..	00094-75-7	10	2,1,3,6,8	1	10	100	1000
ACETIC ACID, 2-ETHYLHEXYL ESTER	00103-09-3	10	7,6	1	10	100	1000
ACETIC ACID, 2-METHYLPROPYL ESTER	00110-19-0	100	3,1,5,6	10	100	1000	10000
ACETIC ACID, 2-PROPENYL ESTER	00591-87-7	10	7,6	1	10	100	1000
ACETIC ACID, AMMONIUM SALT	00631-61-8	100	7,1,3	(See RCs of any listed constituents)			

ACETIC ACID, ANHYDRIDE	00108-24-7	100	1,3,6	10	100	1000	10000
ACETIC ACID, BUTYL ESTER	00123-86-4	100	3,6	10	100	1000	10000
ACETIC ACID, CADMIUM SALT	00543-90-8	5	7,1,3	(See RCs of any listed constituents)			
ACETIC ACID, CHLORO-	00079-11-8	1	7,1,4,6,8	0.1	1	10	100
ACETIC ACID, CHLORO-, ETHYL ESTER	00105-39-5	10	7,1,6	1	10	100	1000
ACETIC ACID, CHLORO-, METHYL ESTER	00096-34-4	100	7,6	10	100	1000	10000
ACETIC ACID, CHROMIUM (3) SALT	01066-30-4	50	1,3	(See RCs of any listed constituents)			
ACETIC ACID, COPPER(2+) SALT	00142-71-2	10	7,1,3	(See RCs of any listed constituents)			
ACETIC ACID, ETHYL ESTER	00141-78-6	100	7,3,1,5,6	10	100	1000	10000
ACETIC ACID, ETHYLENYL ESTER	00108-05-4	100	1,3,4,5,6,8	10	100	1000	10000

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations			
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
ACETIC ACID, FLUORO-	00144-49-0	1	7,4	0.1	1	10	100
ACETIC ACID, FLUORO-, SODIUM SALT	00062-74-8	5	2,3,7,4,6	(See RCs of any listed constituents)			
ACETIC ACID, HEXYL ESTER	00142-92-7	100	7,6	10	100	1000	10000
ACETIC ACID, LEAD SALT	00301-04-2	5	2,3,7,1,6	(See RCs of any listed constituents)			
ACETIC ACID, MERCURY(2+) SALT	01600-27-7	1	7,1,4	(See RCs of any listed constituents)			
ACETIC ACID, METHYL ESTER	00079-20-9	10	7,1,6	1	10	100	1000
ACETIC ACID, PENTYL ESTER	00628-63-7	100	7,1,3,6	10	100	1000	10000
ACETIC ACID, PROPYL ESTER	00109-60-4	10	7,1,6	1	10	100	1000
ACETIC ACID, THALLIUM (1+) SALT	00563-68-8	10	2,7,3,6	(See RCs of any listed constituents)			
ACETIC ACID, ZINC SALT	00557-34-6	50	7,1,3	(See RCs of any listed constituents)			

ACETIC ANHYDRIDE	00108-24-7	100	1,3,6	10	100	1000	10000
ACETIMIDIC ACID, N-[(METHYLCARBAMOYL)OXY]THIO-...	16752-77-5	10	2,3,1,4,6	1	10	100	1000
ACETONE	67-64-1	100	1,3,5,6,8	6.3	50	6	50
ACETONE CYANOHYDRIN	00075-86-5	5	1,3,6,4,2	0.5	5	50	500
ACETONE THIOXEMICARBAZIDE	01752-30-3	1	4	0.1	1	10	100
ACETONITRILE	00075-05-8	100	1,2,3,6,7,8	10	100	1000	10000
ACETONITRILE, HYDROXY-	00107-16-4	1	4	0.1	1	10	100
3-(alpha-ACETONYLBENZYL)-4-HYDROXYCOUMARIN-AND SALTS	00081-81-2	10	1,2,3,4,6,3	1	10	100	1000
p-ACETOPHENETIDIDE	00062-44-2	10	6,2,3	1	10	100	1000
ACETOPHENONE	00098-86-2	100	1,3,2,6,8	10	100	1000	10000
ACETYL BENZOYL PEROXIDE	00644-31-5	10	1	1	10	100	1000

ACETYL BROMIDE	00506-96-7	100	1,3,7,6	10	100	1000	10000
ACETYL CHLORIDE	00075-36-5	100	1,2,3,6,7	10	100	1000	10000
ACETYL CHLORIDE, DICHLORO-	00079-36-7	10	7,1,6	1	10	100	1000
ACETYL CHLORIDE, FLUORO-	00359-06-8	1	7,4	0.1	1	10	100
ACETYL CHLORIDE, TRICHLORO-	00076-02-8	1	7,4	0.1	1	10	100
ACETYL PEROXIDE	00110-22-5	10	1,6	1	10	100	1000
1-ACETYL-2-THIOUREA	00591-08-2	50	1,2,3,6	5	50	500	5000
2-ACETYLAMINOFLUORENE	00053-96-3	1	2,3,6,8	0.1	1	10	100

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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
ACETYLENE	00074-86-2	10	1,6	1	10	100	1000	
ACETYLENE DICHLORIDE	00540-59-0	10	6,8	0.07	0.1	0.3	0.4	
ACETYLENE TETRABROMIDE	00079-27-6	50	1,6	5	50	500	5000	3
ACETYLENE TETRACHLORIDE	79-34-5	10	1,2,3,5,6,8	0.002	0.009	0.005	0.02	1
ACROLEIN	00107-02-8	1	1,2,3,8,6,4	0.1	1	10	100	0
ACRYLAMIDE	00079-06-1	100	1,2,3,4,6,8	10	100	1000	10000	
ACRYLIC ACID	00079-10-7	100	1,3,6,8	10	100	1000	10000	
ACRYLONITRILE	00107-13-1	10	1,2,3,5,8,6,4	1	10	100	1000	C
ACRYLYL CHLORIDE	00814-68-6	1	4	0.1	1	10	100	M

ACTINOMYCIN D	00050-76-0	10	7,6	1	10	100	1000	R
ADIPIC ACID	00124-04-9	100	1,3,6	10	100	1000	10000	:
ADIPONITRILE	00111-69-3	1	6,4	0.1	1	10	100	D
ADIPYLDINITRILE	00111-69-3	1	6,4	0.1	1	10	100	E
ALACHLOR	15972-60-8	10	5	1	10	100	1000	P
ALANINE, 3-[P-BIS(2-CHLOROETHYL)AMINO]PHENYL-,L-	00148-82-3	1	2,3,6	0.1	1	10	100	A
ALDICARB	00116-06-3	1	1,3,6,4,2	0.1	1	10	100	R
ALDOL	00107-89-1	10	6	1	10	100	1000	T
ALDRIN	309-00-2	1	1,2,3,8,6,4	0.0005	0.002	0.09	0.5	M
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)								E

ALLYL ACETATE	00591-87-7	10	6	1	10	100	1000	N
ALLYL ALCOHOL	00107-18-6	10	1,2,3,6,4,8	1	10	100	1000	T
ALLYL BROMIDE	00106-95-6	10	1,6	1	10	100	1000	
ALLYL CHLORIDE	00107-05-1	50	1,2,3,8,6	5	50	500	5000	O
ALLYL CHLOROCARBONATE	02937-50-0	10	1,6	1	10	100	1000	F
ALLYL CHLOROFORMATE	02937-50-0	10	6,1	1	10	100	1000	
ALLYL GLYCIDYL ETHER (AGE)	00106-92-3	50	6	5	50	500	5000	E
ALLYL TRICHLOROSILANE	00107-37-9	10	1,6	1	10	100	1000	N
ALLYLAMINE	00107-11-9	1	6,4	0.1	1	10	100	V
ALUMINUM BROMIDE	07727-15-3	10	1	(See RCs of any listed constituents)				I
ALUMINUM CHLORIDE	07446-70-0	10	6,1	(See RCs of any listed constituents)				R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
ALUMINUM PHOSPHIDE	20859-73-8	10	4,6,1,2,3	(See RCs of any listed constituents)				
ALUMINUM SULFATE	10043-01-3	100	3,1,6	(See RCs of any listed constituents)				
ALUMINUM, CHLORODIETHYL-	00096-10-6	10	7,6	1	10	100	1000	3
ALUMINUM, DICHLOROETHYL-	00563-43-9	10	7,6	1	10	100	1000	1
ALUMINUM, HYDROBIS (2-METHYLPROPYL)-	01191-15-7	10	7,6	1	10	100	1000	0
ALUMINUM, TRIBROMOTRIMETHYLDI-	12263-85-3	10	7,6	1	10	100	1000	
ALUMINUM, TRICHLOROTRIETHYLDI-	12075-68-2	10	7,6	1	10	100	1000	C
ALUMINUM, TRIETHYL	00097-93-8	10	7,6	1	10	100	1000	M
ALUMINUM, TRIS(2-METHYLPROPYL)-	00100-99-2	10	7,6	1	10	100	1000	R

AMETRYN	00834-12-8	10	5	1	10	100	1000	:
6-AMINO-1,1A,2,8,8A,8B-HEXAHYDRO-8-(HYDROXYMETHYL)..	00050-07-7	5	2,3,4,6	0.5	5	50	500	
2-AMINO-1-METHYL BENZENE	00095-53-4	10	3,2,5,6,8	1	10	100	1000	D
4-AMINO-1-METHYL BENZENE	00106-49-0	10	3,2,6	1	10	100	1000	E
2-AMINO-2-METHYL-1-PROPANOL	00124-68-5	100	6	10	100	1000	10000	P
2-AMINO-3-METHYL-9H-PYRIDO[2,3-B]INDOLE	68806-83-7	1	6	0.1	1	10	100	A
2-AMINO-3-METHYLMIDAZO[4,5-F]QUINOLINE	76180-96-6	1	6	0.1	1	10	100	R
2-AMINO-6-METHYLDIPYRIDO[1,2-A:3',2'-D]IMIDAZOLE	67730-11-4	1	6	0.1	1	10	100	T
2-AMINO-9H-PYRIDO[2,3-B]INDOLE	26148-68-5	1	6	0.1	1	10	100	M
3-AMINO-S-TRIAZOLE	00061-82-5	5	2,3,7,6,8	0.5	5	50	500	E

AMINOCARB	02032-59-9	10	1	1	10	100	1000	N
2-AMINODIPYRIDO[1,2-A:3',2'-D]IMIDAZOLE	67730-10-3	1	6	0.1	1	10	100	T
2-AMINOETHANOL	00141-43-5	10	6,1	1	10	100	1000	
1-(2-AMINOETHYL)-PIPERAZINE	00140-31-8	100	6,1	10	100	1000	10000	O
N-AMINOETHYLPIPERAZINE	00140-31-8	100	1,6	10	100	1000	10000	F
5-(AMINOMETHYL)-3-ISOXAZOLOL	02763-96-4	50	1,2,3,4	5	50	500	5000	
AMINOPTERIN	00054-62-6	1	4	0.1	1	10	100	E
4-AMINOPYRIDINE	00504-24-5	50	3,1,4,2	5	50	500	5000	N
4-AMINOTOLUENE	00106-49-0	10	2,3,6	1	10	100	1000	V
AMITON	00078-53-5	1	4	0.1	1	10	100	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1 (mg/l)	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
AMITON OXALATE	03734-97-2	1	4	0.1	1	10	100	
AMITROL	00061-82-5	5	2,3,7,6,8	0.5	5	50	500	
AMITROLE	00061-82-5	5	2,3,7,6,8	0.5	5	50	500	3
AMMONIA	07664-41-7	10	4,6,3,5,7,8,1	1	10	100	1000	1
AMMONIA, ANHYDROUS	07664-41-7	10	6,1,3,4,5,8	1	10	100	1000	0
AMMONIUM ACETATE	00631-61-8	100	1,3,6	(See RCs of any listed constituents)				
AMMONIUM BENZOATE	01863-63-4	100	1,3,6	10	100	1000	10000	C
AMMONIUM BICARBONATE	01066-33-7	100	1,3,6	(See RCs of any listed constituents)				M
AMMONIUM BICHROMATE	07789-09-5	5	3,1,6	(See RCs of any listed constituents)				R

AMMONIUM BIFLUORIDE	01341-49-7	100	1,3,6	(See RCs of any listed constituents)				:
AMMONIUM BISULFITE	10192-30-0	100	1,3,6	(See RCs of any listed constituents)				
AMMONIUM BROMIDE	12124-97-9	10	6	(See RCs of any listed constituents)				D
AMMONIUM CARBAMATE	01111-78-0	100	1,3,6	(See RCs of any listed constituents)				E
AMMONIUM CARBONATE	00506-87-6	100	3,6	(See RCs of any listed constituents)				P
AMMONIUM CHLORIDE	12125-02-9	100	6,1,3	(See RCs of any listed constituents)				A
AMMONIUM CHLOROPLATINATE	16919-58-7	100		(See RCs of any listed constituents)				R
AMMONIUM CHROMATE	07788-98-9	5	3,1,6	(See RCs of any listed constituents)				T
AMMONIUM CITRATE, DIBASIC	03012-65-5	100	1,3,6	10	100	1000	10000	M
AMMONIUM DICHROMATE	07789-09-5	5	6,1,3	(See RCs of any listed constituents)				E

AMMONIUM FLUOBORATE	13826-83-0	100	1,3,6	(See RCs of any listed constituents)				N
AMMONIUM FLUORIDE	01341-49-7	100	1,3,6	(See RCs of any listed constituents)				T
AMMONIUM FLUORIDE	12125-01-8	10	6,1,3	(See RCs of any listed constituents)				
AMMONIUM HYDROGEN FLUORIDE	01341-49-7	100	1,3,6	(See RCs of any listed constituents)				O
AMMONIUM HYDROSULFIDE SOLUTION	12135-76-1	10	1,3	(See RCs of any listed constituents)				F
AMMONIUM HYDROXIDE	01336-21-6	50	1,3,6	(See RCs of any listed constituents)				
AMMONIUM NITRATE	06484-52-2	10	6,1,8	(See RCs of any listed constituents)				E
AMMONIUM OXALATE	05972-73-6	100	3,6	(See RCs of any listed constituents)				N
								V
								I
								R

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		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
AMMONIUM OXALATE	06009-70-7	100	3,6	(See RCs of any listed constituents)				
AMMONIUM OXALATE	14258-49-2	100	3,6	(See RCs of any listed constituents)				
AMMONIUM PERCHLORATE	07790-98-9	10	6,1	0.002	1	0.1	6	3
AMMONIUM PICRATE	00131-74-8	5	1,3,6	(See RCs of any listed constituents)				1
AMMONIUM SILICOFLUORIDE	16919-19-0	50	1,3,6	(See RCs of any listed constituents)				0
AMMONIUM SULFAMATE	07773-06-0	100	1,3,6	(See RCs of any listed constituents)				
AMMONIUM SULFAMATE (AMMATE)	07773-06-0	100	6,1,3	(See RCs of any listed constituents)				C
AMMONIUM SULFIDE	12135-76-1	10	3,1,6	(See RCs of any listed constituents)				M
AMMONIUM SULFIDE SOLUTION	12135-76-1	10	1,3,6	(See RCs of any listed constituents)				R

AMMONIUM SULFITE	10196-04-0	100	1,3,6	(See RCs of any listed constituents)				:
AMMONIUM TARTRATE	03164-29-2	100	1,3,6	10	100	1000	10000	
AMMONIUM TARTRATE	14307-43-8	100	3,6	10	100	1000	10000	D
AMMONIUM THIOCYANATE	01762-95-4	100	1,3,6	(See RCs of any listed constituents)				E
AMMONIUM THIOSULFATE	07783-18-8	100	1,6	(See RCs of any listed constituents)				P
AMMONIUM VANADATE	07803-55-6	50	3,1,2,6	(See RCs of any listed constituents)				A
AMMONIUM ZINC CHLORIDE	52628-25-8	50	7,1,3	(See RCs of any listed constituents)				R
AMOSITE	01332-21-4	1	6,1,3,5,8	(Not Applicable)				T
AMPHETAMINE	00300-62-9	1	4	0.1	1	10	100	M
iso-AMYL ACETATE	00625-16-1	100	6	10	100	1000	10000	E

tert-AMYL ACETATE	00625-16-1	100	3,6	10	100	1000	10000	N
SEC-AMYL ACETATE	00626-38-0	100	3,6	10	100	1000	10000	T
AMYL ACETATE	00628-63-7	100	6,1,3	10	100	1000	10000	
n-AMYL ACETATE	00628-63-7	100	6,1,3	10	100	1000	10000	O
AMYL ALCOHOL	00071-41-0	10	6	1	10	100	1000	F
AMYL CHLORIDE	00543-59-9	10	1,6	1	10	100	1000	
AMYL NITRATE	00110-46-3	10	1	1	10	100	1000	E
AMYL TRICHLOROSILANE	00107-72-2	10	6,1	1	10	100	1000	N
AMYLENE	00513-35-9	10	1,6	1	10	100	1000	V
								I
								R

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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2	S1	S2	
				(mg/l)	(mg/l)	(mg/kg)	(mg/kg)	
beta-AMYLENE-CIS	00627-20-3	10	6	1	10	100	1000	
beta-AMYLENE-TRANS	00646-04-8	10	6	1	10	100	1000	
ANDROST-4-EN-ONE,17-(1-OXOPROPOXY)-,(17a)	00057-85-2	1	7	0.1	1	10	100	3
ANHYDROUS AMMONIA	07664-41-7	10	1,3,4,5,6,8	1	10	100	1000	1
ANILINE	00062-53-3	100	1,2,3,4,5,6,8	10	100	1000	10000	0
ANILINE, 2,4,6-TRIMETHYL-	00088-05-1	1	4	0.1	1	10	100	
ANIMAL OIL (DEP RQ in gallons)		55	5	(Not Applicable)				
O-ANISIDINE	00090-04-0	50	6,8	5	50	500	5000	C
ANTHOPHYLLITE	01332-21-4	1	6,1,3,5,8	(Not Applicable)				M

ANTHRACENE	120-12-7	100	3,8,6	0.03	0.03	1000	3000	:
1-ANTHRACENESULFONIC ACID, 9,10-DIHYDRO-9,10-DIOXO..	00128-56-3	50	7	(See RCs of any listed constituents)				
ANTIMONATE(2-), BIS[.MU.-[2,3-DIHYDROXYBUTANEDIO..	28300-74-5	10	7,1,3	(See RCs of any listed constituents)				D
ANTIMONOUS CHLORIDE	10025-91-9	50	1,3	(See RCs of any listed constituents)				E
ANTIMONY	7440-36-0	100	6,3,7,2,8	0.006	8	20	40	P
ANTIMONY COMPOUNDS, NOS		100	3	(See RCs of any listed constituents)				A
ANTIMONY FLUORIDE (SbF5)	07783-70-2	1	7,1,4,6	(See RCs of any listed constituents)				R
ANTIMONY OXIDE	01309-64-4	50	1,3,6	(See RCs of any listed constituents)				T
ANTIMONY PENTACHLORIDE	07647-18-9	50	6,1,3	(See RCs of any listed constituents)				M
ANTIMONY PENTAFLUORIDE	07783-70-2	1	4,6,1	(See RCs of any listed constituents)				E

ANTIMONY POTASSIUM TARTRATE	28300-74-5	10	1,3,6	(See RCs of any listed constituents)				N
ANTIMONY SULFIDE	01345-04-6	10	1	(See RCs of any listed constituents)				T
ANTIMONY TRIBROMIDE	07789-61-9	50	3,1,6	(See RCs of any listed constituents)				
ANTIMONY TRICHLORIDE	10025-91-9	50	3,1,6	(See RCs of any listed constituents)				O
ANTIMONY TRIFLUORIDE	07783-56-4	50	3,1,6	(See RCs of any listed constituents)				F
ANTIMONY TRIOXIDE	01309-64-4	50	6,1,3	(See RCs of any listed constituents)				
ANTIMYCIN A	01397-94-0	1	7,4	0.1	1	10	100	E
ANTU (ALPHA-NAPHTHYL THIOUREA)	00086-88-4	10	6,1,2,3,4	1	10	100	1000	N
ARGANTATE(1-), BIS(CYANO-C)-, POTASSIUM	00506-61-6	1	7,1,2,3,4	(See RCs of any listed constituents)				V
ARGENTATE(1-),DICYANO-, POTASSIUM	00506-61-6	1	2,1,3,4	(See RCs of any listed constituents)				I
AROCLOR 1016	12674-11-2	1	3,6	0.0005	0.005	1	4	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations				
		RQ (Pounds)	SOURCES		GW2	S1	S2		
				(mg/l)	(mg/l)	(mg/kg)	(mg/kg)		
AROCOR 1221	11104-28-2	1	3,6	0.0005	0.005	1	4		
AROCOR 1232	11141-16-5	1	3,6	0.0005	0.005	1	4		
AROCOR 1242	53469-21-9	1	3,6	0.0005	0.005	1	4	3	
AROCOR 1248	12672-29-6	1	3,6	0.0005	0.005	1	4	1	
AROCOR 1254	11097-69-1	1	3,6	0.0005	0.005	1	4	0	
AROCOR 1260	11096-82-5	1	3,6	0.0005	0.005	1	4		
AROCLORS	01336-36-3	1	2,1,3,5,6,8	0.0005	0.005	1	4		
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)									
AROMATIC SOLVENT	08030-30-6	10	7,1,6,5	(See TPH RC and RCs of other relevant constituents)					C M R :
ARSENENOUS ACID, SODIUM SALT	07784-46-5	1	7,1,3,4	(See RCs of any listed constituents)					

ARSENIC	7440-38-2	1	6,3,7,1,2,8	0.01	0.9	20	20		
ARSENIC ACID	01327-52-2	1	7,6,3	(See RCs of any listed constituents)					D
ARSENIC ACID	07778-39-4	1	1,3,6	(See RCs of any listed constituents)					E
ARSENIC ACID (H3AsO4)	07778-39-4	1	7,1,3,6	(See RCs of any listed constituents)					P
ortho-ARSENIC ACID	07774-41-6	10	1	1	10	100	1000	A	
ARSENIC ACID (H3AsO4), CALCIUM SALT (2:3)	07778-44-1	1	7,1,3,4	(See RCs of any listed constituents)					R
ARSINIC ACID, DIMETHYL-	00075-60-5	1	7,2,3	0.1	1	10	100	T	
ARSINIC ACID, DIMETHYL-, SODIUM SALT	00124-65-2	1	4	(See RCs of any listed constituents)					M
ARSENIC ACID (H3ASO4), HEMIHYDRATE	07774-41-6	10	1,7	1	10	100	1000	E	
ARSENIC ACID (H3AsO4), LEAD SALT	07645-25-2	1	7,3,6	(See RCs of any listed constituents)					N

ARSENIC ACID (H3AsO4), LEAD(2+) SALT (1:1)	07784-40-9	1	7,1,3	(See RCs of any listed constituents)					T
ARSENIC ACID (H3AsO4), LEAD(4+) SALT (3:2)	10102-48-4	1	7,3,6	(See RCs of any listed constituents)					
ARSENIC ACID (H3AsO4), MONOPOTASSIUM SALT	07784-41-0	1	7,1,3	(See RCs of any listed constituents)					O
ARSENIC ACID (H3AsO4), SODIUM SALT	07631-89-2	1	7,1,3,4	(See RCs of any listed constituents)					F
ARSENIC BROMIDE	07784-33-0	10	1	(See RCs of any listed constituents)					
ARSENIC CHLORIDE	07784-34-1	1	6,1,3,4	(See RCs of any listed constituents)					E
ARSENIC COMPOUNDS, NOS		1	3	(See RCs of any listed constituents)					N
ARSENIC DISULFIDE	01303-32-8	1	3,6	(See RCs of any listed constituents)					V
ARSENIC IODIDE	07784-45-4	5	1	(See RCs of any listed constituents)					I
ARSENIC OXIDE	01303-28-2	1	1,2,3,4	(See RCs of any listed constituents)					R

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		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
ARSENIC OXIDE	01327-53-3	1	1,2,3,4,6	(See RCs of any listed constituents)				
ARSENIC PENTOXIDE	01303-28-2	1	1,2,3,4	(See RCs of any listed constituents)				
ARSENIC TRICHLORIDE	07784-34-1	1	3,1,4,6	(See RCs of any listed constituents)				3
ARSENIC TRIHYDRIDE	07784-42-1	1		(See RCs of any listed constituents)				1
ARSENIC TRIOXIDE	01327-53-3	1	1,2,3,6,4	(See RCs of any listed constituents)				0
ARSENIC TRISULFIDE	01303-33-9	1	6,1,3	(See RCs of any listed constituents)				
ARSENOUS OXIDE	01327-53-3	1	4,1,2,3,6	(See RCs of any listed constituents)				C
ARSENOUS TRICHLORIDE	07784-34-1	1	4,7,1,3,6	(See RCs of any listed constituents)				M
ARSINE	07784-42-1	1	4,6,1,7	(See RCs of any listed constituents)				R

ARSINE, DIETHYL-	00692-42-2	1	2,3,7,6	0.1	1	10	100	:
ARSONIC ACID, CALCIUM SALT (1:1)	52740-16-6	1	7,1,3	(See RCs of any listed constituents)				
ARSONIC ACID, PHENYL-	00098-05-5	1	2,7,4	0.1	1	10	100	D
ARSONIC ACID, POTASSIUM SALT	10124-50-2	1	1,3,4	(See RCs of any listed constituents)				E
ARSONOUS DICHLORIDE, (2-CHLOROETHENYL)-	00541-25-3	1	7,4	0.1	1	10	100	P
ARSONOUS DICHLORIDE, PHENYL-	00696-28-6	1	7,1,2,3,4	0.1	1	10	100	A
ASBESTOS	01332-21-4	1	1,3,5,6,8	(Not Applicable)				R
ASPHALT	08052-42-4	50	7,6	(See RCs of any listed constituents)				T
ATRAZINE	01912-24-9	10	5	1	10	100	1000	M

AURAMINE	00492-80-8	10	2,3,6,8	1	10	100	1000	E
AVIATION FUEL	(DEP RQ IN GALLONS)	10	5	(See TPH RC and RCs of other listed constituents)				N
AZASERINE	00115-02-6	1	2,3,6	0.1	1	10	100	T
AZINPHOS-ETHYL	02642-71-9	1	4,1	0.1	1	10	100	
AZINPHOS-METHYL	00086-50-0	1	4,6,1,3	0.1	1	10	100	O
AZIRIDINE	00151-56-4	1	2,3,7,8,6,1,4	0.1	1	10	100	F
AZIRIDINE, 2-METHYL-	00075-55-8	1	7,1,2,3,4,6,8	0.1	1	10	100	
AZIRINO(2',3':3,4)PYRROLO(1,2-A)INDOLE-4,7-DION...	00050-07-7	5	2,3,7,4,6	0.5	5	50	500	E
AZODRIN	06923-22-4	1	6,4,1	0.1	1	10	100	N
AZOLE	00109-97-7	100	6	10	100	1000	10000	V
BACITRACIN	01405-87-4	1	7	0.1	1	10	100	I
R								

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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BARIUM	7440-39-3	100	5	2	50	1000	3000	
BARIUM CHLORATE	13477-00-4	10	6,1	(See RCs of any listed constituents)				
BARIUM CYANIDE	00542-62-1	5	1,2,3,7,6	(See RCs of any listed constituents)				3
BARIUM NITRATE	10022-31-8	100	6,1	(See RCs of any listed constituents)				1
BARIUM PEROXIDE	01304-29-6	10	1,6,7	(See RCs of any listed constituents)				0
BAYGON	00114-26-1	1	7,6,8,1	0.1	1	10	100	
BAYTEX	00055-38-9	5	6,1	0.5	5	50	500	C
BENOMYL	17804-35-2	5	6	0.5	5	50	500	M
BENSENESULFONIC ACID, DODECYL-	27176-87-0	50	7,1,3	5	50	500	5000	R

3,4-BENZACRIDINE	00225-51-4	10	3,2	1	10	100	1000	:
BENZAL CHLORIDE	00098-87-3	100	1,2,3,6,8,4	10	100	1000	10000	
BENZALDEHYDE	00100-52-7	10	1,6	1	10	100	1000	D
BENZAMIDE, 3,5-DICHLORO-N-(1,1-DIMETHYL-2-PROPYN..	23950-58-5	100	7,1,2,3,6,8	10	100	1000	10000	E
BENZAMINE,4-[(4-AMINOPHENYL)(4-IMINO-2,5-CYCLOHE..	00569-61-9	1	7	0.1	1	10	100	P
1,2-BENZANTHRACENE	00056-55-3	5	3,2,6	0.001	1	20	300	A
1,2-BENZANTHRACENE, 7,12-DIMETHYL-	00057-97-6	1	2,3,6	0.1	1	10	100	R
BENZENAMINE	00062-53-3	100	2,3,7,1,4,5,6,8	10	100	1000	10000	T
BENZENAMINE, 2-METHYL-	00095-53-4	10	7,2,3,5,6,8	1	10	100	1000	M
BENZENAMINE, 2-METHYL-, HYDROCHLORIDE	00636-21-5	10	2,3,7,6,8	1	10	100	1000	E

BENZENAMINE, 2-METHYL-5-NITRO-	00099-55-8	10	2,3,7,6,8	1	10	100	1000	N
BENZENAMINE, 3-(TRIFLUOROMETHYL)-	00098-16-8	1	4,7	0.1	1	10	100	T
BENZENAMINE, 4,4'-CARBONIMIDOYLBIS(N,N-DIMETHYL-	00492-80-8	10	3,7,2,6,8	1	10	100	1000	
BENZENAMINE, 4,4'-METHYLENEBIS(2-CHLORO-	00101-14-4	5	2,3,6,8	0.5	5	50	500	O
BENZENAMINE, 4-CHLORO-	106-47-8	50	2,3,1,6	0.02	0.3	1	3	F
BENZENAMINE, 4-CHLORO-2-METHYL-,HYDROCHLORIDE	03165-93-3	10	3,7,1,6	1	10	100	1000	
BENZENAMINE, 4-METHYL-	00106-49-0	10	2,3,6	1	10	100	1000	E
BENZENAMINE, 4-NITRO	00100-01-6	100	2,3,1,6	10	100	1000	10000	N
BENZENAMINE, N,N-DIMETHYL-	00121-69-7	100	7,6,8	10	100	1000	10000	V
BENZENAMINE, N,N-DIMETHYL-4-PHENYLAZO-	00060-11-7	5	2,3,7,6,8	0.5	5	50	500	I
								R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BENZENAMINE, N-PHENYL-	00122-39-4	1	2,5,6	0.1	1	10	100	
BENZENE	71-43-2	5	1,2,3,5,6,7,8	0.005	1	2	200	
BENZENE SULFONIC ACID, 4-METHYL-	00104-15-4	10	7,6	1	10	100	1000	3
BENZENE, (1,1-DIMETHYLETHYL)-	00098-06-6	10	7,6,1	1	10	100	1000	1
BENZENE, (1-METHYLETHENYL)-	00098-83-9	10	7,6	1	10	100	1000	0
BENZENE, (1-METHYLETHYL)-	00098-82-8	100	3,7,1,6,8	10	100	1000	10000	
BENZENE, (1-METHYLETHENYL)-	00098-83-9	10	7,6	1	10	100	1000	C
BENZENE, (1-METHYLETHYL)-	00098-82-8	100	3,7,1,6,8	10	100	1000	10000	M
BENZENE, (DICHLOROMETHYL)-	00098-87-3	100	2,3,7,1,4,8	10	100	1000	10000	R

BENZENE, (TRICHLOROMETHYL)-	00098-07-7	5	2,3,7,4,6,8	0.5	5	50	500	:
BENZENE, (TRIFLUOROMETHYL)-	00098-08-8	10	7,6	1	10	100	1000	
BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-...	72-43-5	1	1,2,3,6,7,8	0.01	0.01	300	400	D
BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-C..	50-29-3	1	7,1,2,3,6	0.0003	0.001	7	30	E
BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO	72-54-8	1	7,1,2,3,6	0.0002	0.05	10	40	P
BENZENE, 1,1'-(DICHLOROETHYLIDENE)BIS[4-CHLORO-...	72-55-9	1	2,3,6	0.00005	0.4	7	30	A
BENZENE, 1,1'-OXYBIS-	00101-84-8	10	7,6	1	10	100	1000	R
BENZENE, 1,2,4,5-TETRACHLORO-	00095-94-3	100	2,3,7,1,6	10	100	1000	10000	T
BENZENE, 1,2,4-TRICHLORO-	120-82-1	10	1,2,3,8,6	0.07	0.2	2	6	M
BENZENE, 1,2,4-TRIMETHYL-	00095-63-6	100	7,8,6	10	100	1000	10000	E

BENZENE, 1,2-DICHLORO-	95-50-1	10	2,3,7,1,5,6,8	0.6	2	9	100	N
BENZENE, 1,2-DICHLORO-4-ISOCYANATO-	00102-36-3	1	4	0.1	1	10	100	T
BENZENE, 1,2-DIETHYL-	00135-01-3	100	7,6	10	100	1000	10000	
BENZENE, 1,2-DIMETHYL	00095-47-6	50	7,3,5,6,8	6	6	500	500	O
BENZENE, 1,2-DINITRO-	00528-29-0	10	7,2,3,6,8	1	10	100	1000	F
BENZENE, 1,2-METHYLENEDIOXY-4-ALLYL-	00094-59-7	10	2,3,6,8	1	10	100	1000	
BENZENE, 1,2-METHYLENEDIOXY-4-PROPENYL-	00120-58-1	10	3,2,6,8	1	10	100	1000	E
BENZENE, 1,2-METHYLENEDIOXY-4-PROPYL-	00094-58-6	5	2,3,8	0.5	5	50	500	N
BENZENE, 1,3,5-TRIMETHYL-	00108-67-8	1	7,6	0.1	1	10	100	V
								I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BENZENE, 1,3,5-TRINITRO-	00099-35-4	5	2,3,7,1,6	0.5	5	50	500	
BENZENE, 1,3-DICHLORO-	00541-73-1	10	3,2,7,1,8	0.1	6	3	200	
BENZENE, 1,3-DIISOCYANATO-2-METHYL	00091-08-7	10	7,3,4,8	1	10	100	1000	3
BENZENE, 1,3-DIISOCYANATOMETHYL	00584-84-9	10	3	1	10	100	1000	1
BENZENE, 1,3-DIMETHYL-	00108-38-3	50	3,5,6,8	6	6	500	500	0
BENZENE, 1,3-DINITRO-	00099-65-0	10	7,3,6,8	1	10	100	1000	
BENZENE, 1,4-DICHLORO-	00106-46-7	10	2,3,1,5,6,8	0.005	0.06	0.7	1	C
BENZENE, 1,4-DIETHYL-	00105-05-5	10	7,6	1	10	100	1000	M

BENZENE, 1,4-DIISOTHIOCYANATO-	04044-65-9	1	7,4	0.1	1	10	100	R
BENZENE, 1,4-DIMETHYL-	00106-42-3	50	3,5,6,8	6	6	500	500	:
BENZENE, 1,4-DINITRO-	00100-25-4	10	3,6	1	10	100	1000	
BENZENE, 1-(CHLOROMETHYL)-4-NITRO-	00100-14-1	1	4,7	0.1	1	10	100	D
BENZENE, 1-BROMO-2-METHYL	00095-46-5	10	7,6	1	10	100	1000	E
BENZENE, 1-BROMO-4-PHENOXY-	00101-55-3	10	2,3,1,6	1	10	100	1000	P
BENZENE, 1-CHLORO-2,4-DINITRO-	00097-00-7	10	7,6	1	10	100	1000	A
BENZENE, 1-CHLORO-3-NITRO-	00121-73-3	100	7,1,6	10	100	1000	10000	R
BENZENE, 1-CHLORO-4-PHENOXY-	07005-72-3	100	7,1,3	10	100	1000	10000	T

BENZENE, 1-METHYL-1,3-DINITRO-	00606-20-2	10	3	1	10	100	1000	M
BENZENE, 1-METHYL-2,4-DINITRO-	121-14-2	5	2,3,8,6	0.03	20	0.7	10	E
BENZENE, 1-METHYL-2,6-DINITRO-	00606-20-2	10	2,3,8,6	1	10	100	1000	N
BENZENE, 1-METHYL-2-NITRO-	00088-72-2	50	7,3,6	5	50	500	5000	T
BENZENE, 1-METHYL-4-(METHYLETHYL)-	00099-87-6	10	7,6	1	10	100	1000	
BENZENE, 1-METHYL-4-NITRO-	00099-99-0	50	7,3,6	5	50	500	5000	O
BENZENE, 2,4-DIISOCYANATO-1-METHYL-	00584-84-9	10	7,3,4,8	1	10	100	1000	F
BENZENE, 2,4-DIISOCYANATO-1-METHYL-	00584-84-9	10	7,3,4,8	1	10	100	1000	
BENZENE, 2,4-DIISOCYANATOMETHYL-	00091-08-7	10	3,4,8	1	10	100	1000	E
BENZENE, 2,4-DIISOCYANATOMETHYL-	00584-84-9	10	3,4,8	1	10	100	1000	N
BENZENE, 2-AMINO-1-METHYL	00095-53-4	10	2,3,5,6,8	1	10	100	1000	V
BENZENE, 2-METHYL-1,3,5-TRINITRO-	00118-96-7	10	7,1,6	1	10	100	1000	I
								R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BENZENE, 2-METHYL-1,3-DINITRO-	00606-20-2	10	7,2,3,8,6	1	10	100	1000	
BENZENE, 4-AMINO-1-METHYL	00106-49-0	10	2,3,6	1	10	100	1000	
BENZENE, 4-METHYL-1-1,2-DINITRO-	00610-39-9	5	7,3	0.5	5	50	500	3
BENZENE, BIS(CHLOROMETHYL)-	28347-13-9	1	7,4	0.1	1	10	100	1
BENZENE, BROMO-	00108-86-1	10	7,1,6	1	10	100	1000	0
BENZENE, CHLORO-	108-90-7	10	2,3,1,5,6,8	0.1	0.2	1	3	
BENZENE, CHLOROMETHYL-	00100-44-7	10	2,3,1,4,5,6,8	1	10	100	1000	C
BENZENE, DICHLORO-	25321-22-6	10	7,3,8,3	0.005	0.2	0.7	4	M
BENZENE, DICHLORO-, N.O.S.	25321-22-6	10	2,3,8,3	0.005	0.2	0.7	4	R
m-BENZENE, DIMETHYL	00108-38-3	50	3,5,6,8	6	6	500	500	:

BENZENE, DIMETHYL	01330-20-7	50	1,3,5,6,8	3	3	100	100	
BENZENE, DINITRO-	25154-54-5	10	7,1,3	1	10	100	1000	D
BENZENE, DINITRO-, N.O.S.	00528-29-0	10	2,3,6,8	1	10	100	1000	E
BENZENE, ETHENYL-	00100-42-5	50	3,5,6,1,8	0.1	0.1	3	4	P
BENZENE, ETHENYLMETHYL-	25013-15-4	10	7,6,1	1	10	100	1000	A
BENZENE, ETHYL-	100-41-4	50	3,6,1,5,8	0.7	5	40	1000	R
BENZENE, HEXACHLORO-	00118-74-1	5	2,3,8,6	0.001	0.001	0.7	0.9	T
BENZENE, HEXAHYDRO-	00110-82-7	50	3,1,5,6,8	5	50	500	5000	M
BENZENE, HYDROXY-	00108-95-2	50	1,2,3,4,5,6,8	0.9	1	0.9	10	E

BENZENE, M-DIMETHYL-	00108-38-3	50	3,5,6,8	6	6	500	500	N
BENZENE, METHYL-	108-88-3	50	1,2,3,5,6,8	1	40	30	1000	T
BENZENE, METHYLDINITRO-	25321-14-6	5	7,1,3	0.03	2	0.7	2	
BENZENE, METHYLNITRO-	01321-12-6	50	1,3	5	50	500	5000	O
BENZENE, NITRO-	00098-95-3	50	2,3,1,4,5,6,8	5	50	500	5000	F
BENZENE, O-DIMETHYL	00095-47-6	50	3,5,6,8	6	6	500	500	
BENZENE, P-DIMETHYL-	00106-42-3	50	3,5,6,8	6	6	500	500	E
BENZENE, PENTACHLORO-	00608-93-5	5	2,3,7,6	0.5	5	50	500	N
BENZENE, PENTACHLORONITRO-	00082-68-8	10	2,3,6,8,3	1	10	100	1000	V
BENZENE, PROPYL-	00103-65-1	10	7,6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BENZENEACETIC ACID,ALPHA-[(DIMETHOXYPHOSPHINOTHIO..	02597-03-7	1	1,7	0.1	1	10	100	
BENZENEACETIC ACID, 4-CHLORO-ALPHA-(4-CHLOROPHE...	00510-15-6	5	3,2,7,6,8	0.5	5	50	500	
BENZENEACETONITRILE	00140-29-4	1	7,4,6	0.1	1	10	100	3
BENZENEAMINE, 2,4,6-TRIMETHYL-	00088-05-1	1	7,4	0.1	1	10	100	1
BENZENEAMINE, 2,6-DIMETHYL	00087-62-7	10	7,6,8	1	10	100	1000	0
BENZENEAMINE, N-NITROSO-N-PHENYL-	00086-30-6	10	7,1,3,6,8	1	10	100	1000	
BENZENEARSONIC ACID	00098-05-5	1	2,4	0.1	1	10	100	C
BENZENEBUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]-	00305-03-3	5	7,2,3,6	0.5	5	50	500	M
1,3BENZENEDIAMINE, 2-METHYL-	00823-40-5	5	7,2,3,6	0.5	5	50	500	R

1,3-BENZENEDIAMINE, 4-METHYL-	00095-80-7	5	7,2,3,6,8	0.5	5	50	500	:
1,2-BENZENEDIAMINE, 4-METHYL-	00496-72-0	5	7,2,3,6	0.5	5	50	500	
BENZENEDIAMINE, AR-METHYL-	00095-80-7	5	3	0.5	5	50	500	D
BENZENEDIAMINE, AR-METHYL-	25376-45-8	5	7,2,3,8	0.5	5	50	500	E
1,4-BENZENEDIAMINE, N,N-DIMETHYL-	00099-98-9	1	7,4	0.1	1	10	100	P
1,2-BENZENEDICARBOXYLIC ACID ANHYDRIDE	00085-44-9	100	2,3,1,5,6,8	10	100	1000	10000	A
1,2-BENZENEDICARBOXYLIC ACID, BUTYL PHENYLMETHYL..	00085-68-7	10	2,1,3,8	1	10	100	1000	R
1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER	00117-84-0	100	3,1,2	10	100	1000	10000	T
1,2-BENZENEDICARBOXYLIC ACID,DI-N-OCTYL ESTER	00117-84-0	100	3,1,2	10	100	1000	10000	M

1,2-BENZENEDICARBOXYLIC ACID,DIBUTYL ESTER	00084-74-2	5	2,3,7,1,,6,8	0.5	5	50	500	E
1,2-BENZENEDICARBOXYLIC ACID,DIETHYL ESTER	84-66-2	50	1,2,3,6,7,8	2	9	10	200	N
1,2-BENZENEDICARBOXYLIC ACID,DIMETHYL ESTER	131-11-3	100	1,2,3,8,6	0.3	50	0.7	50	T
1,2-BENZENEDICARBOXYLIC ACID,[BIS(2-ETHYTHEXYL)] ESTER	00117-81-7	10	2,3,5,8,6	0.006	50	100	700	
1,3-BENZENEDIOL	00108-46-3	100	2,3,1,5,6	10	100	1000	10000	O
1,4-BENZENEDIOL	00123-31-9	1	4,6,8	0.1	1	10	100	F
1,2-BENZENEDIOL,4-[1-HYDROXY-2-(METHYLAMINO)ETH...	00051-43-4	50	2,3,7,6	5	50	500	5000	
BENZENEETHANAMINE, .ALPHA.,.ALPHA.-DIMETHYL-	00122-09-8	100	1,2,3,6	10	100	1000	10000	E
BENZENEETHANAMINE, .ALPHA.-METHYL-, (.+-.)-	00300-62-9	1	7,4	0.1	1	10	100	N
GAMMA-BENZENEHEXACHLORIDE	58-89-9	1	3,1,4,5,6,8	0.0002	0.004	0.003	0.5	V
BENZENEMETHANAMINE, .ALPHA.-METHYL-	00098-84-0	10	7,6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BENZENEMETHANAMINE, N-ETHYL-N-PHENYL-	00092-59-1	50	7,6	5	50	500	5000	
BENZENEMETHANOL 4-CHLORO-.ALPHA.-(4-CHLOROPHENY...	00115-32-2	5	1,3,6,8	0.5	5	50	500	
BENZENESULFONIC ACID CHLORIDE	00098-09-9	10	3,1,6	1	10	100	1000	3
BENZENESULFONIC ACID, 4-HYDROXY-, ZINC SALT (2:1)	00127-82-2	100	3,1	(See RCs of any listed constituents)				1
BENZENESULFONIC ACID, DODECYL-, CALCIUM SALT	26264-06-2	50	7,1,3	(See RCs of any listed constituents)				0
BENZENESULFONIC ACID, DODECYL-, COMPD. WITH 1-AM..	42504-46-1	50	7,1,3	5	50	500	5000	
BENZENESULFONIC ACID, DODECYL-, COMPD. WITH 2,2'..	27323-41-7	50	7,1,3	5	50	500	5000	C
BENZENESULFONIC ACID, DODECYL-, SODIUM SALT	25155-30-0	50	7,1,3	(See RCs of any listed constituents)				M
BENZENESULFONYL CHLORIDE	00098-09-9	10	3,7,1,6	1	10	100	1000	R

BENZENETHIOL	00108-98-5	10	1,2,3,4,6	1	10	100	1000	:
BENZIDINE	00092-87-5	1	1,2,3,6,8	0.1	1	10	100	
BENZIMIDAZOLE, 4,5-DICHLORO-2-(TRIFLUOROMETHYL)-	03615-21-2	1	4	0.1	1	10	100	D
BENZINE	08030-30-6	10	1,6,5	(See TPH RC and RCs of other relevant constituents)				E
BENZISOTHIAZOL-3(2H)-ONE, 1,1-DIOXIDE	00081-07-2	10	7,2,3,6,8	1	10	100	1000	P
1,2-BENZISOTHIAZOL-3-(2H)-ONE, 1,1-DIOXIDE	00081-07-2	10	3,2,6,8,3	1	10	100	1000	A
BENZO(K)FLUORANTHENE	207-08-9	100	7,6,3,2	0.001	0.1	200	3000	R
1,3-BENZODIOXOLE, 5-(1-PROPENYL)	00120-58-1	10	7,2,3,6,8	1	10	100	1000	T
1,3-BENZODIOXOLE, 5-(2-PROPENYL)-	00094-59-7	10	7,2,3,6,8	1	10	100	1000	M
BENZODIOXOLE, 5-PROPYL-	00094-58-6	5	7,2,3,8	0.5	5	50	500	E

2,3-BENZOFLUORANTHENE	205-99-2	1	2,3,6	0.001	0.4	20	300	N
7-BENZOFURANOL, 2,3-DIHYDRO-2,2-DIMETHYL-, METHYL..	01563-66-2	5	7,1,3,4,6	0.5	5	50	500	T
BENZOIC ACID	00065-85-0	100	1,3,6,7	10	100	1000	10000	
BENZOIC ACID, 3,6-DICHLORO-2-METHOXY-	01918-00-9	50	7,1,3	5	50	500	5000	O
BENZOIC ACID, AMMONIUM	01863-63-4	100	7,1,3,6	10	100	1000	10000	F
BENZOIC TRICHLORIDE	00098-07-7	5	8,2,3,4,6	0.5	5	50	500	
1,2-BENZOISOTHIAZOLIN-3-ONE,1,1-DIOXIDE, AND SALTS	00081-07-2	10	2,3,6,8	1	10	100	1000	E
BENZOL	71-43-2	5	1,2,3,5,6,7,8	0.005	1	2	200	N
BENZONITRILE	00100-47-0	100	1,3,6	10	100	1000	10000	V
BENZONITRILE, 2,6-DICHLORO-	01194-65-6	10	1,3	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BENZONITRILE, 4-HYDROXY-3,5-DIIODO-	01689-83-4	10	1,7	1	10	100	1000	
2H-1-BENZOPYRAN-2-ONE, 3-[1-(2-FURAMYL)-3-OXOBUTYL]-...	00117-52-2	50	7	5	50	500	5000	
2H-1-BENZOPYRAN-2-ONE, 3-[3-(4'-BROMO[1,1'-BIPHENYL]-...	28772-56-7	1	7,4,6	0.1	1	10	100	3
2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(1,2,3,4-TETRAHYDR..	05836-29-3	1	7,4	0.1	1	10	100	1
2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBU...	00129-06-6	1	4	(See RCs of any listed constituents)				0
2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL	00081-81-2	10	7,1,2,3,4,6,3	1	10	100	1000	
BENZOPYRANO[3,4-B]FURO[2,3-H][1]BENZOPYRAN-6(6AH..	00083-79-1	1	7,6,1	0.1	1	10	100	C
3,4-BENZOPYRENE	00050-32-8	1	2,3,6	0.0002	0.5	2	30	M
p-BENZOQUINONE	00106-51-4	5	2,3,6,8	0.5	5	50	500	R

BENZOTHIAZOLIUM, 3-ETHYL-2-[5-(3-ETHYL-2(3H)-BEN..	00514-73-8	1	7,4	0.1	1	10	100	:
BENZOTRICHLORIDE	00098-07-7	5	2,3,4,6,8	0.5	5	50	500	
BENZOTRIFLUORIDE	00098-08-8	10	6	1	10	100	1000	D
BENZOYL CHLORIDE	00098-88-4	50	1,3,6,7,8	5	50	500	5000	E
BENZOYL PEROXIDE	00094-36-0	10	1,6,8	1	10	100	1000	P
BENZO[A]ANTHRACENE	56-55-3	5	3,2,6	0.001	1	20	300	A
BENZO[A]PYRENE	50-32-8	1	2,7,6,3	0.0002	0.5	2	30	R
BENZO[B]FLUORANTHENE	205-99-2	1	2,3,6	0.001	0.4	20	300	T
BENZO[G,H,I]PERYLENE	00191-24-2	100	7,3,6	0.02	0.02	1000	3000	M

BENZO[J,K]FLUORENE	206-44-0	10	2,3,6	0.09	0.2	1000	3000	E
BENZO[R,S,T]PENTAPHENE	00189-55-9	5	7,2,3,6	0.5	5	50	500	N
1,2-BENZPHENANTHRENE	00218-01-9	10	2,3,7,6	0.002	0.07	200	3000	T
BENZYL BROMIDE	00100-39-0	10	1,6	1	10	100	1000	
BENZYL CHLORIDE	00100-44-7	10	1,2,3,4,5,6,8	1	10	100	1000	O
BENZYL CHLOROFORMATE	00501-53-1	10	1	1	10	100	1000	F
BENZYL CYANIDE	00140-29-4	1	6,4	0.1	1	10	100	
BENZYLIDENE CHLORIDE	00098-87-3	100	1,2,3,4,8	10	100	1000	10000	E
BENZ[A]ANTHRACENE	56-55-3	5	3,2,6	0.001	1	20	300	N
BENZ[A]ANTHRACENE, 7,12-DIMETHYL-	00057-97-6	1	7,2,3,6	0.1	1	10	100	V
BENZ[C]ACRIDINE	00225-51-4	10	3,7,6	1	10	100	1000	I
								R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BENZ[E]ACEPHENANTHRYLENE	205-99-2	1	2,3,6	0.001	0.4	20	300	
BENZ[J]ACEANTHRYLENE, 1,2-DIHYDRO-3-METHYL-	00056-49-5	5	2,3,7,6	0.5	5	50	500	
BERYLLIUM	7440-41-7	5	6,3,5,7,2,8	0.004	0.2	100	200	3
BERYLLIUM COMPOUNDS, NOS		5	3	(See RCs of any listed constituents)				1
BERYLLIUM CHLORIDE	07787-47-5	1	3,6,1	(See RCs of any listed constituents)				0
BERYLLIUM CHLORIDE (BeC12)	07787-47-5	1	7,1,3,6	(See RCs of any listed constituents)				
BERYLLIUM FLUORIDE	07787-49-7	1	3,6,1	(See RCs of any listed constituents)				C
BERYLLIUM FLUORIDE (BeCl2)	07787-49-7	1	1,7,3,6	(See RCs of any listed constituents)				M
BERYLLIUM NITRATE	07787-55-5	1	3,6	(See RCs of any listed constituents)				R

BERYLLIUM NITRATE	13597-99-4	1	1,3,6	(See RCs of any listed constituents)				:
BERILLIUM NITRATE (HYDRATED)	07787-55-5	1	6	(See RCs of any listed constituents)				
gamma-BHC	58-89-9	1	3,1,4,5,6,8	0.0002	0.004	0.003	0.5	D
alpha-BHC	00319-84-6	5	3,6	0.5	5	50	500	E
beta-BHC	00319-85-7	1	3,6	0.1	1	10	100	P
delta-BHC	00319-86-8	1	3,6	0.1	1	10	100	A
BICYCLO[2.2.1]HEPT-2-ENE, 5-ETHYLIDENE-	16219-75-3	100	7,6	10	100	1000	10000	R
BICYCLO[2.2.1]HEPT-5-ENE-2,3-DICARBOXYLIC ACID,..	00115-28-6	1	7	0.1	1	10	100	T
BICYCLO[2.2.1]HEPTAN-2-ONE, 1,7,7-TRIMETHYL-	00076-22-2	10	7,6	1	10	100	1000	M

BICYCLO[2.2.1]HEPTANE-2-CARBONITRILE,5-CHLORO-6-..	15271-41-7	1	4	0.1	1	10	100	E
BICYLCO[3.1.1]HEPT-2-ENE, 2,6,6-TRIMETHYL	00080-56-8	10	7,1,6	1	10	100	1000	N
BIDRIN	00141-66-2	1	6,4,1	0.1	1	10	100	T
BINAPACRYL	00485-31-4	1	1	0.1	1	10	100	
2,2'-BIOXIRANE	01464-53-5	5	2,3,7,4,6,8	0.5	5	50	500	O
BIPHENYL	92-52-4	1	6,8,5,1	0.002	0.2	0.05	6	F
1,1'-BIPHENYL	92-52-4	1	6,8,5,1	0.002	0.2	0.05	6	
(1,1'-BIPHENYL)-4,4'-DIAMINE,3,3'-DIMETHYL-	00119-93-7	5	2,3,6,8	0.5	5	50	500	E
(1,1'-BIPHENYL)-4,4'DIAMINE,3,3'DICHLORO-	91-94-1	1	2,3,7,6,8	0.08	2	3	20	N
(1,1'-BIPHENYL)-4,4'DIAMINE,3,3'DIMETHOXY-	00119-90-4	10	2,3,6,8	1	10	100	1000	V
1,1'-BIPHENYL, CHLORO-DERIVS.	1336-36-3	1	2,1,3,5,6,8	0.0005	0.005	3	4	I
								R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
1,1'-BIPHENYL,2,2',4,4',5,5',-HEXABROMO-	59080-40-9	1	7,6	0.1	1	10	100	
1,1'BIPHENYL,2,2'3,3'4,4',5,5'6,6'-DECABROMO-	13654-09-6	1	7	0.1	1	10	100	
1,1'BIPHENYL,HEXABROMO-	36355-01-8	1	7	0.1	1	10	100	3
1,1'BIPHENYL-2-OL,SODIUM SALT	00132-27-4	1	7,6	(See RCs of any listed constituents)				1
[1,1'-BIPHENYL]-4,4'DIAMINE	00092-87-5	1	2,3,7,1,6,8	0.1	1	10	100	0
[1,1'-BIPHENYL]-4-ACETIC ACID, 2-FLUOROETHYL ESTER	04301-50-2	1	7,4	0.1	1	10	100	
4,4'BIPYRIDINIUM, 1,1'-DIMETHYL-, BIS(METHYL SULFATE)	02074-50-2	1	7,4,6	0.1	1	10	100	
4,4'-BIPYRIDINIUM, 1,1'-DIMETHYL-, DICHLORIDE	01910-42-5	1	7,4,6	0.1	1	10	100	C
BIS (2-CHLOROETHYL) ETHER	00111-44-4	5	2,3,6,8,4,1	0.03	0.03	0.7	0.7	M

BIS(2,3-EPOXYPROPYL) ETHER	02238-07-5	1	6,4	0.1	1	10	100	R
BIS(2-CHLORO-1-METHYLETHYL) ETHER	108-60-1	50	1,2,3,6,8	0.03	0.1	0.7	0.7	:
BIS(2-CHLORO-1-METHYLETHYL) ETHER	39638-32-9	50	1,2,3,6,8	0.03	0.1	0.7	0.7	
BIS(2-CHLOROISOPROPYL)ETHER	00108-60-1	50	1,2,3,6,8	0.03	0.1	0.7	0.7	D
BIS(2-CHLOROISOPROPYL)ETHER	108-61-1	50	1,2,3,6,8	0.03	0.1	0.7	0.7	E
BIS(2-CHLOROETHOXY) METHANE	00111-91-1	50	2,3,6,8	5	50	500	5000	P
BIS(2-CHLOROETHYL)SULFIDE	00505-60-2	1	6,2,4,8	0.1	1	10	100	A
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	10	2,3,5,8,6	0.006	50	100	700	R
BIS(CHLOROMETHYL) ETHER	00542-88-1	5	2,3,6,8,4	0.5	5	50	500	T
BIS(CHLOROMETHYL)KETONE	00534-07-6	1	4	0.1	1	10	100	M
BIS(DIMETHYLTHIOCARBAMOYL) DISULFIDE	00137-26-8	5	2,3,1,6,8	0.5	5	50	500	E
BITOSCANATE	04044-65-9	1	4	0.1	1	10	100	N

BORANE, TRICHLORO-	10294-34-5	1	7,1,4	(See RCs of any listed constituents)				T
BORANE, TRIETHYL-	00097-94-9	10	7,6	1	10	100	1000	
BORANE, TRIFLUORO-	07637-07-2	1	7,1,4,6	(See RCs of any listed constituents)				O
BORANE, TRIFLUORO-, COMPD. WITH 1,1'-OXYBIS[ETH...	00109-63-7	10	7,6	1	10	100	1000	F
BORATE(1-), TETRAFLUORO-, LEAD(2+) (2:1)	13814-96-5	5	7,1,3	(See RCs of any listed constituents)				
BORIC ACID, TRIMETHYL ESTER	00121-43-7	50	7,6	5	50	500	5000	
BORIC ACID, ZINC SALT	01332-07-6	50	7,1,3	(See RCs of any listed constituents)				E
BORON BROMIDE	10294-33-4	10	6	(See RCs of any listed constituents)				N
BORON TRICHLORIDE	10294-34-5	1	4,1	(See RCs of any listed constituents)				V
BORON TRIFLUORIDE	07637-07-2	1	4,6,1	(See RCs of any listed constituents)				I
BORON TRIFLUORIDE COMPOUND WITH METHYL ETHER (1:1)	00353-42-4	1	4	(See RCs of any listed constituents)				R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations				
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BORON TRIFLUORIDE ETHERATE	00109-63-7	10	6	1	10	100	1000	
BORON, TRIFLUORO[OXYBIS[METHANE]]-, (T-4)-	00353-42-4	1	7,4	(See RCs of any listed constituents)				
BRICK OIL	08001-58-9	1	7,2,3,6,1	(See RCs of any listed constituents)				3
BROMACIL	00314-40-9	50	6	5	50	500	5000	1
BROMADIOLONE	28772-56-7	1	4,6	0.1	1	10	100	0
BROMINE	07726-95-6	1	4,6,1,7	0.1	1	10	100	
BROMINE CYANIDE	00506-68-3	1	1,2,3,4,6	(See RCs of any listed constituents)				C
BROMINE PENTAFLUORIDE	07789-30-2	10	6,1	(See RCs of any listed constituents)				M
BROMINE TRIFLUORIDE	07787-71-5	10	6,1	(See RCs of any listed constituents)				R

BROMOACETONE	00598-31-2	50	1,2,3,6	5	50	500	5000	:
BROMOBENZENE	00108-86-1	10	1,6	1	10	100	1000	
BROMODICHLOROMETHANE	75-27-4	100	6	0.003	0.006	0.1	0.1	D
BROMOFORM	75-25-2	10	1,2,3,6,8	0.004	0.7	0.1	1	E
BROMOMETHANE	00074-83-9	50	2,8,1,3,4,5,6	0.007	0.007	0.5	0.5	P
4-BROMOPHENYL PHENYL ETHER	00101-55-3	10	1,2,3,6	1	10	100	1000	A
BROMOPHOS-ETHYL	04824-78-6	10	1	1	10	100	1000	R
3-BROMOPROPYNE	00106-96-7	1	6,4	0.1	1	10	100	T
O-BROMOTOLUENE	00095-46-5	10	6	1	10	100	1000	M

BROMOTOLUENE, ALPHA	00100-39-0	10	1,6	1	10	100	1000	E
BROMOXYNIL	01689-84-5	100	5,1	10	100	1000	10000	N
BRUCINE	00357-57-3	5	1,2,3,6	0.5	5	50	500	T
BUHACH	08003-34-7	1	7,1,3,6	0.1	1	10	100	
BUTADIENE	00106-99-0	1	1,6,5,8	0.1	1	10	100	O
1,3-BUTADIENE	00106-99-0	1	5,8,6,1	0.1	1	10	100	F
BUTADIENE MONOXIDE	00930-22-3	10	6	1	10	100	1000	
1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO-	87-68-3	1	2,3,7,6,8,1	0.0006	0.05	30	100	E
1,3-BUTADIENE, 2-CHLORO-	00126-99-8	1	7,1,2,5,6,8	0.1	1	10	100	N
1,3-BUTADIENE, 2-METHYL-	00078-79-5	10	7,1,3,6	1	10	100	1000	V
BUTANAL	00123-72-8	10	7,1,6,8	1	10	100	1000	I
								R

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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
1-BUTANAMINE	00109-73-9	50	1,3,6	5	50	500	5000	
sec-BUTANAMINE	13952-84-6	50	3,6	5	50	500	5000	
2-BUTANAMINE	13952-84-6	50	7,3,6	5	50	500	5000	3
2-BUTANAMINE, (S)-	00513-49-5	50	7,3,6	5	50	500	5000	1
1-BUTANAMINE, 4-(DIETHOXYMETHYLSILYL)-	03037-72-7	1	7,4	0.1	1	10	100	0
1-BUTANAMINE, N,N-DIBUTYL-	00102-82-9	10	7,6	1	10	100	1000	
1-BUTANAMINE, N-BUTYL-	00111-92-2	10	7,6	1	10	100	1000	
1-BUTANAMINE, N-BUTYL-N-NITROSO-	00924-16-3	5	2,3,7,6,8	0.5	5	50	500	C
1-BUTANAMINE, N-METHYL	00110-68-9	10	7,6	1	10	100	1000	M

BUTANE	00106-97-8	10	1,6	1	10	100	1000	R
BUTANE, 1,1'-OXYBIS-	00142-96-1	10	7,1,6	1	10	100	1000	:
BUTANE, 1-(ETHENYLOXY)-	00111-34-2	50	7,6	5	50	500	5000	D
BUTANE, 1-BROMO-	00109-65-9	10	7,1,6	1	10	100	1000	E
BUTANE, 1-CHLORO-	00109-69-3	10	7,1,6	1	10	100	1000	P
BUTANE, 1-ISOCYANATO-	00111-36-4	10	7,1,6	1	10	100	1000	A
BUTANE, 2,2-DIMETHYL-	00075-83-2	10	7,1,6	1	10	100	1000	R
BUTANE, 2-METHYL-	00078-78-4	10	7,1,6	1	10	100	1000	T
BUTANEDIOIC ACID, ((DIMETHOXY PHOSPHINOTHIOYL)-...	00121-75-5	10	1,3,6	1	10	100	1000	M
BUTANEDIOIC ACID, 2,3-DIHYDROXY- [R-(R*,R*)]-, C..	00815-82-7	10	7,1,3	1	10	100	1000	E

BUTANEDIOIC ACID, 2,3-DIHYDROXY- [R-(R*,R*)]-, D..	03164-29-2	100	7,1,3,6	10	100	1000	10000	N
BUTANEDIOIC ACID, 2,3-DIHYDROXY-[R-(R*,R*)]-,AMM..	14307-43-8	100	7,3,6	10	100	1000	10000	T
2,3-BUTANEDIONE	00431-03-8	50	7,6,1	5	50	500	5000	
BUTANENITRILE	00109-74-0	10	7,6	1	10	100	1000	O
BUTANETHIOL	00109-79-5	10	6,7,1	1	10	100	1000	F
1-BUTANETHIOL	00109-79-5	10	6,1	1	10	100	1000	
2-BUTANETHIOL	00513-53-1	10	6,7	1	10	100	1000	E
BUTANOIC ACID	00107-92-6	100	1,3,6	10	100	1000	10000	N
BUTANOIC ACID, 3-OXO-, ETHYL ESTER	00141-97-9	10	7,6	1	10	100	1000	V
BUTANOIC ACID, 3-OXO-, METHYL ESTER	00105-45-3	10	7,6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
BUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]BENZENE-	00305-03-3	5	2,3,6	0.5	5	50	500	
BUTANOIC ACID, ETHYL ESTER	00105-54-4	10	7,1,6	1	10	100	1000	
BUTANOIC ACID, METHYL ESTER	00623-42-7	10	7,1,6	1	10	100	1000	3
2-BUTENOIC ACID, 3-METHYL-,2-(1-METHYLPROPYL)-4,6-DINITRO..	00485-31-4	1	1,7	0.1	1	10	100	1
1-BUTANOL	00071-36-3	100	1,3,6,7,5,8	10	100	1000	10000	0
2-BUTANOL	00078-92-2	10	6,7,1,8	1	10	100	1000	
BUTANOL (SECONDARY)	00078-92-2	10	1,6,8	1	10	100	1000	C
BUTANOL (TERTIARY)	00075-65-0	10	1,6,8	1	10	100	1000	M
1-BUTANOL, 2-METHYL	00137-32-6	100	7,6	10	100	1000	10000	R

2-BUTANOL, 2-METHYL-	00075-85-4	10	7,6	1	10	100	1000	:
2-BUTANOL, 2-METHYL-, ACETATE	00625-16-1	100	7,3,6	10	100	1000	10000	
1-BUTANOL, 3-METHYL-, ACETATE	00123-92-2	50	3,5,6	5	50	500	5000	D
2-BUTANONE	78-93-3	100	2,3,6,8,1	4	50	4	50	E
2-BUTANONE PEROXIDE	01338-23-4	5	2,3,6	0.5	5	50	500	P
2-BUTANONE, 3,3-DIMETHYL-1-(METHYLTHIO)-, O-[(METH..	39196-18-4	10	7,1,2,3,4	1	10	100	1000	A
3-BUTEN-2-ONE	00078-94-4	1	7,1,4,6	0.1	1	10	100	R
3-BUTEN-2-ONE, 3-METHYL-	00814-78-8	10	7,1,6	1	10	100	1000	T
1-BUTEN-3-YNE	00689-97-4	10	7,6	1	10	100	1000	M

2-BUTENAL	00123-73-9	10	3,4,6,1	1	10	100	1000	E
2-BUTENAL	04170-30-3	10	2,3,7,1,4	1	10	100	1000	N
2-BUTENAL, (E)-	00123-73-9	10	7,3,4,6,1	1	10	100	1000	T
1-BUTENE	00106-98-9	10	6	1	10	100	1000	
2-BUTENE, (E)-	00624-64-6	10	7,6	1	10	100	1000	O
2-BUTENE, (Z)-	00590-18-1	10	7,6	1	10	100	1000	F
2-BUTENE, 1,3-DICHLORO-	00926-57-8	10	7,1,6	1	10	100	1000	
2-BUTENE, 1,4-DICHLORO-	00764-41-0	1	2,3,7,1,6,8	0.1	1	10	100	E
2-BUTENE, 2-METHYL-	00513-35-9	10	7,1,6	1	10	100	1000	N
1-BUTENE, 2-METHYL-	00563-46-2	10	7,1,6	1	10	100	1000	V
1-BUTENE, 3-METHYL-	00563-45-1	10	7,6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
2-BUTENE-CIS	00590-18-1	10	6	1	10	100	1000	
2-BUTENE-TRANS	00624-64-6	10	6	1	10	100	1000	
2-BUTENEDIOIC ACID (E)-	00110-17-8	100	1,3	10	100	1000	10000	3
2-BUTENEDIOIC ACID (Z)-	00110-16-7	100	1,3	10	100	1000	10000	1
2-BUTENOIC ACID, 2-METHYL-,7-((2,3-DIHYDROXY)-2-(1..	00303-34-4	5	2,7,3,6	0.5	5	50	500	0
2-BUTENOIC ACID, 3-[(DIMETHOXYPHOSPHINYL)OXY]-, ME..	07786-34-7	5	7,1,3,4,6	0.5	5	50	500	
2-BUTOXY ETHANOL	00111-76-2	10	6	1	10	100	1000	C
SEC-BUTYL ACETATE	00105-46-4	100	3,6,1	10	100	1000	10000	M
BUTYL ACETATE	00105-46-4	100	1,3,6	10	100	1000	10000	R

iso-BUTYL ACETATE	00110-19-0	100	3,1,5,6	10	100	1000	10000	:
BUTYL ACETATE	00123-86-4	100	3,6	10	100	1000	10000	
tert-BUTYL ACETATE	00540-88-5	100	6,3	10	100	1000	10000	D
BUTYL ACRYLATE	00141-32-2	100	8,6	10	100	1000	10000	E
n-BUTYL ACRYLATE	00141-32-2	100	6,8	10	100	1000	10000	P
N-BUTYL ALCOHOL	00071-36-3	100	1,3,5,6,8	10	100	1000	10000	A
BUTYL ALCOHOL	00071-36-3	100	6,1,3,5,8	10	100	1000	10000	R
TERT-BUTYL ALCOHOL	00075-65-0	10	6,8,1	1	10	100	1000	T
sec-BUTYL ALCOHOL	00078-92-2	10	6,8,1	1	10	100	1000	M

BUTYL BENZYL PHTHALATE	00085-68-7	10	1,2,3,8,6	1	10	100	1000	E
N-BUTYL BROMIDE	00109-65-9	10	1,6	1	10	100	1000	N
tert-BUTYL CARBINOL	00075-84-3	10	6	1	10	100	1000	T
BUTYL CELLOSOLVE	00111-76-2	10	6	1	10	100	1000	
BUTYL CHLORIDE	00109-69-3	10	1,6	1	10	100	1000	O
BUTYL ETHER	00142-96-1	10	1,6	1	10	100	1000	F
tert-BUTYL HYDROPEROXIDE	00075-91-2	10	1,6	1	10	100	1000	
n-BUTYL ISOCYANATE	00111-36-4	10	1,6	1	10	100	1000	E
BUTYL MERCAPTAN	00109-79-5	10	1,6	1	10	100	1000	N
BUTYL METHACRYLATE	00097-88-1	100	6	10	100	1000	10000	V

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
tert-BUTYL PERACETATE	00107-71-1	100	6,1	10	100	1000	10000	
tert-BUTYL PEROXYACETATE	00107-71-1	100	1,6	10	100	1000	10000	
BUTYL PHOSPHATE	00126-73-8	50	6	5	50	500	5000	3
N-BUTYL PHTHALATE	00084-74-2	5	1,3,2,6,8	0.5	5	50	500	1
BUTYL TRICHLOROSILANE	07521-80-4	10	6	1	10	100	1000	0
BUTYL VINYL ETHER	00111-34-2	50	6	5	50	500	5000	
2-SEC-BUTYL-4,6-DINITROPHENOL	00088-85-7	50	2,1,3,4	5	50	500	5000	C
tert-BUTYLAMINE	00075-64-9	50	3,6	5	50	500	5000	M
BUTYLAMINE	00109-73-9	50	1,3,6	5	50	500	5000	R

BUTYLAMINE	00513-49-5	50	3,6	5	50	500	5000	:
SEC-BUTYLAMINE (S-)	00513-49-5	50	6	5	50	500	5000	
tert-BUTYLAMINOETHYL METHACRYLATE	03775-90-4	10	6	1	10	100	1000	D
BUTYLATE	02008-41-5	10	5	1	10	100	1000	E
BUTYLATED HYDROXYANISOLE	25013-16-5	1	6,7	0.1	1	10	100	P
tert-BUTYLBENZENE	00098-06-6	10	6,1	1	10	100	1000	A
n-BUTYLCYCLOHEXYLAMINE	10108-56-2	10	6	1	10	100	1000	R
1,2-BUTYLENE OXIDE	00106-88-7	10	8,6	1	10	100	1000	T
BUTYLENE OXIDE	00109-99-9	50	6,1,3,5	5	50	500	5000	M
BUTYRALDEHYDE	00123-72-8	10	8,6,1	1	10	100	1000	E

n-BUTYRALDEHYDE	00123-72-8	10	6,1,8	1	10	100	1000	N
BUTYRIC ACID	00107-92-6	100	1,3,6	10	100	1000	10000	T
BUTYRLTRICHLOROSILANE	07521-80-4	10	6	1	10	100	1000	
BUTYRONITRILE	00109-74-0	10	6	1	10	100	1000	O
C.I. BASIC ACID GREEN 4	00569-64-2	1	6	0.1	1	10	100	F
C.I. BASIC RED 9, MONOHYDROCHLORIDE	00569-61-9	1	6,7	0.1	1	10	100	
C.I. PIGMENT GREEN 21	12002-03-8	1	1,3,4	(See RCs of any listed constituents)				E
CACODYLIC ACID	00075-60-5	1	2,3,6	0.1	1	10	100	N
CADMIUM	7440-43-9	5	6,3,5,7,2,8	0.005	0.008	80	80	V
								I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations				
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
CADMIUM ACETATE	00543-90-8	5	3,1,6	(See RCs of any listed constituents)				
CADMIUM BROMIDE	07789-42-6	5	3,1	(See RCs of any listed constituents)				
CADMIUM BROMIDE (CdBr2)	07789-42-6	5	7,1,3,6	(See RCs of any listed constituents)				3
CADMIUM CHLORIDE	10108-64-2	5	6,3,1	(See RCs of any listed constituents)				1
CADMIUM COMPOUNDS, NOS		5	3	(See RCs of any listed constituents)				0
CADMIUM OXIDE	01306-19-0	1	6,4	(See RCs of any listed constituents)				
CADMIUM STEARATE	02223-93-0	1	4	(See RCs of any listed constituents)				C
CADMIUM SULFIDE	01306-23-6	10	7,6,1	(See RCs of any listed constituents)				M
CADMIUM SULPHIDE	01306-23-6	10	6,1	(See RCs of any listed constituents)				R

CALCIUM	07440-70-2	10	6,7	(Not Applicable)				:
CALCIUM ARSENATE	07778-44-1	1	4,3,1	(See RCs of any listed constituents)				
CALCIUM ARSENITE	52740-16-6	1	3,1,6	(See RCs of any listed constituents)				D
CALCIUM CARBIDE	00075-20-7	5	3,6,7,1	0.5	5	50	500	E
CALCIUM CHLORATE	10137-74-3	10	6	(See RCs of any listed constituents)				P
CALCIUM CHROMATE	13765-19-0	5	6,1,2,3,5,3	(See RCs of any listed constituents)				A
CALCIUM CYANIDE	00592-01-8	5	6,2,7,3,1	(See RCs of any listed constituents)				R
CALCIUM DODECYLBENZENE SULFONATE	26264-06-2	50	3,1,6	(See RCs of any listed constituents)				T
CALCIUM HYPOCHLORITE	07778-54-3	5	6,3,1	(See RCs of any listed constituents)				M
CAMPHECHLOR	08001-35-2	1	4,1,2,3,6,8	0.1	1	10	100	E

CAMPHENE, OCTACHLORO-	08001-35-2	1	2,3,1,4,6,8	0.1	1	10	100	N
CAMPHOR	00076-22-2	10	6	1	10	100	1000	T
CAMPHOR, SYNTHETIC	00076-22-2	10	6	1	10	100	1000	
CANTHARADIN	00056-25-7	1	4	0.1	1	10	100	O
CAP	00302-22-7	1	6	0.1	1	10	100	F
CAPRYLALDEHYDE	00124-13-0	100	6	10	100	1000	10000	
CAPTAFOL	2425-06-1	1	5	0.1	1	10	100	E
CAPTAN	00133-06-2	5	3,8,6,1	0.5	5	50	500	N
CARBACHOL CHLORIDE	00051-83-2	1	4	0.1	1	10	100	V
								I
								R

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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
CARBAMIC ACID, DIMETHYL-, 1-[(DIMETHYLAMINO)CARB..	00644-64-4	1	7,4	0.1	1	10	100	
CARBAMIC ACID, DIMETHYL-, 3-METHYL-1-(METHYLETH...	00119-38-0	1	7,4	0.1	1	10	100	
CARBAMIC ACID, ETHYL ESTER	00051-79-6	10	2,3,7,6,8	1	10	100	1000	3
CARBAMIC ACID, METHYL-, 3-METHYLPHENYL ESTER	01129-41-5	1	4	0.1	1	10	100	1
CARBAMIC ACID, METHYL-, O-(((2,4-DIMETHYL-1,3-DI..	26419-73-8	1	4	0.1	1	10	100	0
CARBAMIC ACID, METHYLNITROSO-,ETHYL ESTER	00615-53-2	1	2,3,7,6	0.1	1	10	100	
CARBAMIC ACID, MONOAMMONIUM SALT	01111-78-0	100	1,3,6	(See RCs of any listed constituents)				C
CARBAMIC CHLORIDE, DIMETHYL-	00079-44-7	1	7,2,3,6,8	0.1	1	10	100	M
CARBAMIDE, N-ETHYL-N-NITROSO-	00759-73-9	1	2,3,6,8	0.1	1	10	100	R

CARBAMIDE, N-METHYL-N-NITROSO-	00684-93-5	1	2,3,6,8	0.1	1	10	100	:
CARBAMIDE, THIO-	00062-56-6	5	2,3,8	0.5	5	50	500	
CARBAMIMIDOSELENOIC ACID	00630-10-4	50	2,3,6	5	50	500	5000	D
CARBAMODITHIOIC ACID, 1,2-ETHANEDIYLBIS, SALTS &..	00111-54-6	100	3,1,2,6	10	100	1000	10000	E
CARBAMODITHIOIC ACID, 1,2-ETHANEDIYLBIS-, DISODI..	00142-59-6	1	7,6,1	0.1	1	10	100	P
CARBAMODITHIOIC ACID, METHYL-, MONOSODIUM SALT	00137-42-8	1	1,7	0.1	1	10	100	A
CARBAMOTHIOIC ACID, BIS(1-METHYLETHYL)-, S-(2,3-..	02303-16-4	10	7,2,3,6,8,1	1	10	100	1000	R
CARBAMOYL CHLORIDE, DIMETHYL-	00079-44-7	1	2,3,6,8	0.1	1	10	100	T
CARBARYL	00063-25-2	10	3,6,8,1	1	10	100	1000	M

CARBOFURAN	01563-66-2	5	6,3,4,1	0.5	5	50	500	E
CARBOLIC ACID	108-95-2	50	1,2,3,4,5,6,8	0.9	1	0.9	10	N
CARBON BISULFIDE	00075-15-0	10	2,3,1,4,6,8	1	10	100	1000	T
CARBON DIOXIDE (RELEASES TO SURFACE WATERS ONLY)	00124-38-9	50	1,6	(Not Applicable)				
CARBON DISULFIDE	00075-15-0	10	2,3,6,7,4,8,1	1	10	100	1000	O
CARBON MONOXIDE	00630-08-0	10	6,7,1	(Not Applicable)				F
CARBON OXIDE SULFIDE	00463-58-1	10	7,6,8	1	10	100	1000	
CARBON OXYFLUORIDE	00353-50-4	50	2,3,1,6	5	50	500	5000	E
CARBON OXYSULFIDE	00463-58-1	10	6,8	1	10	100	1000	N
CARBON TETRACHLORIDE	56-23-5	5	2,3,5,6,8,1	0.002	0.002	5	5	V
CARBONIC ACID, DIAMMONIUM SALT	00506-87-6	100	7,3,6	(See RCs of any listed constituents)				I
CARBONIC ACID, DIETHYL ESTER	00105-58-8	10	7,6	1	10	100	1000	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
CARBONIC ACID, DITHALLIUM (I) SALT	06533-73-9	10	2,3,4	(See RCs of any listed constituents)				
CARBONIC ACID, DITHALLIUM(1+) SALT	06533-73-9	10	7,2,3,4	(See RCs of any listed constituents)				
CARBONIC ACID, MONOAMMONIUM SALT	01066-33-7	100	1,3,6	(See RCs of any listed constituents)				3
CARBONIC ACID, ZINC SALT (1:1)	03486-35-9	50	7,1,3	(See RCs of any listed constituents)				1
CARBONIC DICHLORIDE	00075-44-5	5	7,1,2,3,4,6,8	0.5	5	50	500	0
CARBONIC DIFLUORIDE	00353-50-4	50	7,1,2,3,6	5	50	500	5000	
CARBONOCHLORIDIC ACID, 1-METHYLETHYL ESTER	00108-23-6	1	4	0.1	1	10	100	C
CARBONOCHLORIDIC ACID, 2-CHLOROETHYL ESTER	00627-11-2	1	7,4	0.1	1	10	100	M

CARBONOCHLORIDIC ACID, 2-PROPENYL ESTER	02937-50-0	10	7,1,6	1	10	100	1000	R
CARBONOCHLORIDIC ACID, ETHYL ESTER	00541-41-3	10	7,1,6,8	1	10	100	1000	:
CARBONOCHLORIDIC ACID, METHYL ESTER	00079-22-1	50	2,3,7,1,4,8	5	50	500	5000	
CARBONOCHLORIDIC ACID, PROPYL ESTER	00109-61-5	1	4	0.1	1	10	100	D
CARBONOCHLORIDOTHIOIC ACID, S-PROPYL ESTER	13889-92-4	100	7,6	10	100	1000	10000	E
CARBONOTHIOIC DIHYDRAZIDE	02231-57-4	1	7,4	0.1	1	10	100	P
CARBONYL CHLORIDE	00075-44-5	5	2,3,6,1,4,8	0.5	5	50	500	A
CARBONYL FLUORIDE	00353-50-4	50	2,3,6,1	5	50	500	5000	R
CARBONYL SULFIDE	00463-58-1	10	8,6	1	10	100	1000	T

CARBOPHENOTHION	00786-19-6	1	4,1	0.1	1	10	100	M
CARD-20(22)-ENOLIDE, 3-[(6-DEOXY-.ALPHA.-L-MANNO..	00630-60-4	1	7,4	0.1	1	10	100	E
CARD-20(22)-ENOLIDE, 3-[(O-2,6-DIDEOXY-.BETA.-D-..	20830-75-5	1	7,4	0.1	1	10	100	N
CARD-20(22)-ENOLIDE, 3-[(O-2,6-DIDEOXY-.BETA.-D-..	00071-63-6	1	7,4	0.1	1	10	100	T
CARVONE	02244-16-8	10		1	10	100	1000	
CELLOSOLVE ACETATE	00111-15-9	10	1,6	1	10	100	1000	O
CELLULOSE NITRATE	09004-70-0	50	6,7,1	5	50	500	5000	F
CHLORAL	00075-87-6	100	2,3,6	10	100	1000	10000	
CHLORAMBUCIL	00305-03-3	5	2,6,3	0.5	5	50	500	E
CHLORDANE	57-74-9	1	3,4,5,8,1,2,6	0.002	0.002	0.7	30	N
CHLORDANE	12789-03-6	1	3,4,5,8,1,2,6	0.002	0.002	6	30	V
CHLORDANE (ALPHA AND GAMMA ISOMERS)	57-74-9	1	2,6,1,3,4,5,8	0.002	0.002	0.7	30	I
CHLORDANE (ALPHA AND GAMMA ISOMERS)	12789-03-6	1	2,6,1,3,4,5,8	0.002	0.002	6	30	R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
CHLORDECONE	00143-50-0	1	6,1,2,3	0.1	1	10	100	
CHLORDIMEFORM	06164-98-3	5	6	0.5	5	50	500	
CHLORENDIC ACID	00115-28-6	1	6,7	0.1	1	10	100	3
1-(2-CHLORETHYL)-3-(4-METHYLCYCLOHEXYL)-1-NITROSOUREA	13909-09-6	1	6	0.1	1	10	100	1
CHLORFENVINPHOS	00470-90-6	1	6,4,1	0.1	1	10	100	0
CHLORIDE OF PHOSPHORUS	07719-12-2	50	1,3,4,6	(See RCs of any listed constituents)				
CHLORINATED CAMPHENE	08001-35-2	1	6,1,2,3,4,8	0.1	1	10	100	
CHLORINE	07782-50-5	5	4,3,6,1,5,7,8	(Not Applicable)				C
CHLORINE CYANIDE	00506-77-4	5	1,2,3,6	(See RCs of any listed constituents)				M

CHLORINE DIOXIDE	10049-04-4	1	6,1,8	(See RCs of any listed constituents)				:
CHLORINE DIOXIDE (HYDRATE)	10049-04-4	1	1,8,6	(See RCs of any listed constituents)				
CHLORINE FLUORIDE (ClF3)	07790-91-2	10	7	(See RCs of any listed constituents)				D
CHLORINE OXIDE	10049-04-4	1	6,1,8	(See RCs of any listed constituents)				E
CHLORMADIONE	00302-22-7	1	6	0.1	1	10	100	P
CHLORMEPHOS	24934-91-6	1	4,1	0.1	1	10	100	A
CHLORMEQUAT CHLORIDE	00999-81-5	1	4	0.1	1	10	100	R
CHLORNAPHAZINE	00494-03-1	10	3,6,3	1	10	100	1000	T
CHLOROACETYL CHLORIDE	00079-04-9	10	1,6	1	10	100	1000	M

1-CHLORO-1,1-DIFLUOROETHANE	00075-68-3	10	1,6,8	1	10	100	1000	E
2-CHLORO-1,3-BUTADIENE	00126-99-8	1	2,6,1,5,8	0.1	1	10	100	N
1-CHLORO-1-NITROPROPANE	00600-25-9	10	6	1	10	100	1000	T
4-CHLORO-2-NITROTOLUENE	00089-59-8	10	1	1	10	100	1000	
2-CHLORO-1-PROPANOL	00078-89-7	100	6	10	100	1000	10000	O
1-CHLORO-2,3-EPOXYPROPANE	00106-89-8	10	2,3,6,4,5,8	1	10	100	1000	F
1-CHLORO-2,4-DINITROBENZENE	00097-00-7	10	6	1	10	100	1000	
1-CHLORO-4-NITROBENZENE	00100-00-5	10	6	1	10	100	1000	E
2-CHLORO-2-NITROPROPANE	00594-71-8	10	6	1	10	100	1000	N
1-CHLORO-2-PROPANOL	00127-00-4	100	6	10	100	1000	10000	V
4-CHLORO-M-CRESOL	00059-50-7	100	1,3,2,6	10	100	1000	10000	I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
p-CHLORO-M-CRESOL	00059-50-7	100	2,3,1,6	10	100	1000	10000	
4-CHLORO-O-TOLUIDINE	00095-69-2	1		0.1	1	10	100	
4-CHLORO-O-TOLUIDINE HYDROCHLORIDE	03165-93-3	10	6,1,3	1	10	100	1000	3
CHLOROACETALDEHYDE	00107-20-0	50	1,2,3,6	5	50	500	5000	1
CHLOROACETIC ACID	00079-11-8	1	1,4,6,8	0.1	1	10	100	0
alpha-CHLOROACETOPHENONE	00532-27-4	10	6,8	1	10	100	1000	
2-CHLOROACETOPHENONE	00532-27-4	10	6,8	1	10	100	1000	
P-CHLOROANILINE	106-47-8	50	2,3,1,6	0.02	0.3	1	3	C
CHLOROBENZENE	108-90-7	10	2,3,1,5,6,8	0.1	0.2	1	3	M

CHLOROBENZILATE	00510-15-6	5	2,6,8,3	0.5	5	50	500	R
CHLOROBENZOL	108-90-7	10	2,3,1,5,6,8	0.1	0.2	1	3	:
CHLOROCARBONATE	00541-41-3	10	1,6,8	1	10	100	1000	D
CHLORODIBROMOMETHANE	124-48-1	10	1,3,6	0.002	0.02	0.005	0.03	E
CHLORODIPHENYL (42% CHLORINE)	53469-21-9	1	3,6	0.0005	0.005	1	4	P
CHLORODIPHENYL (54% CHLORINE)	11097-69-1	1	3,6	0.0005	0.005	1	4	A
CHLOROETHANE	00075-00-3	10	3,5,8,1,6	1	10	100	1000	R
2-CHLOROETHANOL	00107-07-3	1	6,1,4	0.1	1	10	100	T
CHLOROETHANOL	00107-07-3	1	4,1,6	0.1	1	10	100	M

CHLOROETHYL CHLOROFORMATE	00627-11-2	1	4	0.1	1	10	100	E
2-CHLOROETHYL VINYL ETHER	00110-75-8	50	1,2,3,6	5	50	500	5000	N
N,N-BIS(2-CHLOROETHYL)-2-NAPHTHYLAMINE	00494-03-1	10	6,3,3	1	10	100	1000	T
CHLOROFLUOROETHANE	00075-68-3	10	1,6,8	1	10	100	1000	
CHLOROFORM	67-66-3	5	1,2,3,5,6,8,4	0.05	0.05	0.2	0.2	O
BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	50	1,2,3,6,8	0.03	0.4	0.7	3	F
CHLOROMETHANE	00074-87-3	10	2,6,8,1,3	1	10	100	1000	
CHLOROMETHYL ETHER	00542-88-1	5	4,2,3,6,8	0.5	5	50	500	E
CHLOROMETHYL METHYL ETHER	00107-30-2	5	2,3,8,6,4,1	0.5	5	50	500	N
beta-CHLORONAPHTHALENE	00091-58-7	100	3,1,2,6	10	100	1000	10000	V
2-CHLORONAPHTHALENE	00091-58-7	100	1,2,3,6	10	100	1000	10000	I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
m-CHLORONITROBENZENE	00121-73-3	100	6,1	10	100	1000	10000	
o-CHLORONITROBENZENE	00088-73-3	10	6	1	10	100	1000	
1-CHLOROPENTANE	00543-59-9	10	6,1	1	10	100	1000	3
CHLOROPHACINONE	03691-35-8	1	4,6	0.1	1	10	100	1
2-CHLOROPHENOL	95-57-8	10	1,2,3,6	0.01	7	0.7	100	0
4-CHLOROPHENOL	00106-48-9	10	5	0.00001	0.04	0.7	20	
o-CHLOROPHENOL	95-57-8	10	1,2,3,6	0.01	7	0.7	100	C
4-CHLOROPHENYL PHENYL ETHER	07005-72-3	100	1,3,6	10	100	1000	10000	M
2-CHLOROPHENYL THIOUREA	05344-82-1	10	1,2,3,4	1	10	100	1000	R

1-(o-CHLOROPHENYL)THIOUREA	05344-82-1	10	2,3,1,4	1	10	100	1000	:
CHLOROPICRIN	00076-06-2	10	1,6	1	10	100	1000	
beta-CHLOROPRENE	00126-99-8	1	6,1,2,5,8	0.1	1	10	100	D
CHLOROPRENE	00126-99-8	1	1,5,8,2,6	0.1	1	10	100	E
3-CHLOROPROPENE	00107-05-1	50	2,6,1,3,8	5	50	500	5000	P
2-CHLOROPROPENE	00557-98-2	10	1,6	1	10	100	1000	A
CHLOROPROPHAM	00101-21-3	10	5	1	10	100	1000	R
2-CHLOROPROPIONIC ACID	00598-78-7	6	100	10	100	1000	10000	T
3-CHLOROPROPIONITRILE	00542-76-7	50	3,1,2,4	5	50	500	5000	M

2-CHLOROPROPYLENE	00557-98-2	10	6,1	1	10	100	1000	E
1-CHLOROPROPYLENE	00590-21-6	10	6,1	1	10	100	1000	N
CHLOROSULFONIC ACID	07790-94-5	50	3,6,1	(See RCs of any listed constituents)				T
CHLOROSULFURIC ACID	07790-94-5	50	6,7,1,3	(See RCs of any listed constituents)				
CHLOROTHALONIL	01897-45-6	5	6,8	0.5	5	50	500	O
o-CHLOROTOLUENE	00095-49-8	10	6	1	10	100	1000	F
CHLOROTOLUENE	00100-44-7	10	6,1,2,3,4,5,8	1	10	100	1000	
CHLOROXURON	01982-47-4	1	4	0.1	1	10	100	E
CHLORPHACINONE	03691-35-8	1	4,6	0.1	1	10	100	N
CHLORPYRIFOS	02921-88-2	1	6,1,3	0.1	1	10	100	V
								I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
CHLORTHIOPHOS	21923-23-9	1	4,1	0.1	1	10	100	
CHROMIC (II) CHLORIDE	10049-05-5	50	6,1,3	(See RCs of any listed constituents)				
CHROMIC (III) CHLORIDE	10025-73-7	1	6,4	(See RCs of any listed constituents)				3
CHROMIC ACETATE	01066-30-4	50	1,3,6	(See RCs of any listed constituents)				1
CHROMIC ACID	07738-94-5	5	6,1,3,5	(See RCs of any listed constituents)				0
CHROMIC ACID	11115-74-5	5	1,3,5,7,6	(See RCs of any listed constituents)				
CHROMIC ACID (H2CrO4)	07738-94-5	5	7,1,3,5,6	(See RCs of any listed constituents)				C
CHROMIC ACID (H2Cr2O7), DIAMMONIUM SALT	07789-09-5	5	7,1,3,6	(See RCs of any listed constituents)				M
CHROMIC ACID (H2Cr2O7), DIPOTASSIUM SALT	07778-50-9	5	7,1,3,6	(See RCs of any listed constituents)				R

CHROMIC ACID (H2CrO4), DISODIUM SALT	07775-11-3	5	7,1,3,6	(See RCs of any listed constituents)				:
CHROMIC ACID H2CRO4, CALCIUM SALT	13765-19-0	5	3	(See RCs of any listed constituents)				
CHROMIC ACID, (H2CrO4), DIPOTASSIUM SALT	07789-00-6	5	7,1,3,6	(See RCs of any listed constituents)				D
CHROMIC ACID, (H2CrO4), DIAMMONIUM SALT	07788-98-9	5	7,1,3,6	(See RCs of any listed constituents)				E
CHROMIC ACID, (H2CrO4), STRONTIUM SALT (1:1)	07789-06-2	5	7,1,3,6	(See RCs of any listed constituents)				P
CHROMIC ACID, CALCIUM SALT	13765-19-0	5	2,3,7,1,5,6,3	(See RCs of any listed constituents)				A
CHROMIC ACID, DILITHIUM SALT	14307-35-8	5	7,1,3,6	(See RCs of any listed constituents)				R
CHROMIC ACID, DISODIUM SALT	10588-01-9	5	1,3,6	(See RCs of any listed constituents)				T
CHROMIC CHLORIDE	10025-73-7	1	4,6	(See RCs of any listed constituents)				M

CHROMIC SULFATE	10101-53-8	50	1,3,6	(See RCs of any listed constituents)				E
CHROMIUM	07440-47-3	100	6,3,5,7,2,8	0.1	0.3	100	200	N
CHROMIUM (TOTAL)	7440-47-3	100	6,3,5,7,2,8	0.1	0.3	100	200	T
CHROMIUM (III)	16065-83-1	100	5	0.1	0.6	1000	3000	
CHROMIUM (VI)	18540-29-9	10	5	0.1	0.3	100	200	O
CHROMIUM ANHYDRIDE	01333-82-0	5	6,1	(See RCs of any listed constituents)				F
CHROMIUM CHLORIDE (CrCl3)	10025-73-7	1	7,4,6	(See RCs of any listed constituents)				
CHROMIUM COMPOUNDS, NOS		5	3	(See RCs of any listed constituents)				E
CHROMIUM SULFATE	10101-53-8	50	6,1,3	(See RCs of any listed constituents)				N
CHROMOUS CHLORIDE	10049-05-5	50	1,3,6	(See RCs of any listed constituents)				V
CHROMYL CHLORIDE	14977-61-8	1	6,1	(See RCs of any listed constituents)				I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
CHRYSENE	218-01-9	10	2,3,7,6	0.002	0.07	200	3000	
CLONITRALID	01420-04-8	5	6	0.5	5	50	500	
COAL TAR PITCH	65996-93-2	1	6	(See TPH RC and RCs of other relevant constituents)				3
COBALT	07440-48-4	50	7,6,8	5	50	500	5000	1
COBALT CARBONYL	10210-68-1	1	4	(See RCs of any listed constituents)				0
COBALT, DI-.MU.-CARBONYLHEXACARBONYLDI-,	10210-68-1	1	7,4	(See RCs of any listed constituents)				
COBALT, [[2,2'-[1,2-ETHANEDIYLBIS(NITRILOMETHYLI..	14167-18-1	1	7,4	0.1	1	10	100	C
COBALT,((2,2'-(1,2-ETHANEDIYLBIS (NITRILOMETHYLI..	62207-76-5	1	4	0.1	1	10	100	M
COBALTOUS BROMIDE	07789-43-7	50	3,1,6	(See RCs of any listed constituents)				R

COBALTOUS FORMATE	00544-18-3	50	3,1,6	(See RCs of any listed constituents)				:
COBALTOUS SULFAMATE	14017-41-5	50	1,3,6	(See RCs of any listed constituents)				
COKE OVEN EMISSIONS		1	3	(See RCs of any listed constituents)				D
COLCHICINE	00064-86-8	1	4	0.1	1	10	100	E
COLLODION	09004-70-0	50	6,1	5	50	500	5000	P
COPPER	07440-50-8	100	3,7,6,8	10	100	1000	10000	A
COPPER (2), TETRAAMMINE-, SULFATE (1:1), MONOHY...	10380-29-7	10	3	(See RCs of any listed constituents)				R
COPPER ACETOARSENITE	12002-03-8	1	1,3,4	(See RCs of any listed constituents)				T
COPPER CHLORIDE	07447-39-4	5	1,3,6	(See RCs of any listed constituents)				M

COPPER CHLORIDE (CuC12)	07447-39-4	5	7,1,3,6	(See RCs of any listed constituents)				E
COPPER COMPOUNDS, NOS		100	3	(See RCs of any listed constituents)				N
COPPER CYANIDE	00544-92-3	5	3,1,2,7,6	(See RCs of any listed constituents)				T
COUMADIN	00081-81-2	10	6,1,2,3,4,3	1	10	100	1000	
COUMAFURYL	00117-52-2	50		5	50	500	5000	O
COUMAPHOS	00056-72-4	5	1,3,4	0.5	5	50	500	F
COUMATETRALYL	05836-29-3	1	4	0.1	1	10	100	
CREOSOTE	08001-58-9	1	3,6,2,8,1	(See RCs of any listed constituents)				E
CREOSOTE OIL	08001-58-9	1	6,2,3,8,1	(See RCs of any listed constituents)				N
CREOSOTE, COAL TAR	08001-58-9	1	6,1	(See RCs of any listed constituents)				V
								I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations				
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)		
CREOSOTE, WOOD	08001-58-9	1	2,3,6,1	(See RCs of any listed constituents)					
o-CRESOL	00095-48-7	50	3,4,6,8	5	50	500	5000		
m-CRESOL	00108-39-4	50	3,8,6	5	50	500	5000	3	
CRESOL	01319-77-3	50	6,1,2,3,8	5	50	500	5000	1	
p-CRESOL(S)	00106-44-5	50	3,5,6,8	5	50	500	5000	0	
o-CRESYLIC ACID	00095-48-7	50	3,4,6,8	5	50	500	5000		
p-CRESYLIC ACID	00106-44-5	50	3,5,6,8	5	50	500	5000	C	
m-CRESYLIC ACID	00108-39-4	50	3,6,8	5	50	500	5000	M	
CRESYLIC ACID	01319-77-3	50	2,3,1,6,8	5	50	500	5000	R	

CRIMIDINE	00535-89-7	1	4	0.1	1	10	100	:	
(E)-CROTONALDEHYDE	00123-73-9	10	3,6,4,1	1	10	100	1000		
CROTONALDEHYDE	04170-30-3	10	1,2,3,4	1	10	100	1000	D	
CROTOXYPHOS	07700-17-6	1	1	0.1	1	10	100	E	
CRUFOMATE	00299-86-5	10	6	1	10	100	1000	P	
CUMENE	00098-82-8	100	1,3,6,8	10	100	1000	10000	A	
CUMENE HYDROPEROXIDE	00080-15-9	5	1,6,8,3	0.5	5	50	500	R	
CUPRIC ACETATE	00142-71-2	10	1,3,6	(See RCs of any listed constituents)					T
CUPRIC ACETOARSENITE	12002-03-8	1	3,1,4	(See RCs of any listed constituents)					M

CUPRIC CHLORIDE	07447-39-4	5	3,1,6	(See RCs of any listed constituents)					E
CUPRIC CYANIDE	00544-92-3	5	1,2,3,6	(See RCs of any listed constituents)					N
CUPRIC OXALATE	05893-66-3	10	3,1,6	(See RCs of any listed constituents)					T
CUPRIC SULFATE	07758-98-7	5	1,3,6	(See RCs of any listed constituents)					
CUPRIC SULFATE AMMONIATED	10380-29-7	10	3,6	(See RCs of any listed constituents)					O
CUPRIC TARTRATE	00815-82-7	10	1,3,6	1	10	100	1000	F	
CURPIC NITRATE	03251-23-8	10	6,1,3	(See RCs of any listed constituents)					
CUTTING OIL (DEP RQ in gallons)		10	5	(See TPH RC and RCs of other relevant constituents)					E
CYANIDE	00057-12-5	5	1,7,2,3,8,6	0.03	0.03	30	100	N	
CYANOGEN	00460-19-5	10	1,2,3,6	1	10	100	1000	V	
CYANOGEN BROMIDE	00506-68-3	1	1,2,3,7,6,4	(See RCs of any listed constituents)					I
								R	

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
CYANOGEN CHLORIDE	00506-77-4	5	1,2,3,6,7	(See RCs of any listed constituents)				
CYANOGEN IODIDE	00506-78-5	1	4	(See RCs of any listed constituents)				
CYANOPHOS	02636-26-2	1	4,1	0.1	1	10	100	3
CYANURIC FLUORIDE	00675-14-9	1	4	0.1	1	10	100	1
CYCLOBUTANE	00287-23-0	10	7,6	1	10	100	1000	0
CYCLOHEPTANE	00291-64-5	50	7,6	5	50	500	5000	
2,5-CYCLOHEXADIENE-1,4-DIONE	00106-51-4	5	2,3,6,8	0.5	5	50	500	C
1,4-CYCLOHEXADIENEDIONE	00106-51-4	5	2,3,6,8	0.5	5	50	500	M
CYCLOHEXANAMINE	00108-91-8	1	1,4,6	0.1	1	10	100	R

CYCLOHEXANAMINE, N-BUTYL-	10108-56-2	10	7,6	1	10	100	1000	:
CYCLOHEXANAMINE, N-CYCLOHEXYL-	00101-83-7	50	7,6	5	50	500	5000	
CYCLOHEXANAMINE, N-ETHYL-	05459-93-8	10	7,6	1	10	100	1000	D
CYCLOHEXANE	00110-82-7	50	1,3,5,8,6	5	50	500	5000	E
CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1.ALPHA.,...	00319-86-8	1	7,3,6	0.1	1	10	100	P
CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1.ALPHA/2AL	00319-84-6	5	7,3,6	0.5	5	50	500	A
CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1.ALPHA/2BE	00319-85-7	1	7,3,6	0.1	1	10	100	R
CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1.alpha.,...	58-89-9	1	7,3,1,4,5,6,8	0.0002	0.004	0.003	0.5	T
CYCLOHEXANE, 5-ISOCYANATO-1-(ISOCYANATOMETHYL)-1..	04098-71-9	1	7,4,6	0.1	1	10	100	M
CYCLOHEXANE, CHLORO-	00542-18-7	10	7,6	1	10	100	1000	E

CYCLOHEXANE, METHYL-	00108-87-2	10	7,1,6	1	10	100	1000	N
CYCLOHEXANE, NITRO-	01122-60-7	1	7,4,6	0.1	1	10	100	T
CYCLOHEXANOL	00108-93-0	10	7,6	1	10	100	1000	
CYCLOHEXANONE	00108-94-1	100	1,3,6	10	100	1000	10000	O
CYCLOHEXATRIENE	71-43-2	5	1,2,3,5,6,7,8	0.005	1	2	200	F
2-CYCLOHEXEN-1-ONE, 2-METHYL-5-(1-METHYLETHENYL)-,...	02244-16-8	10	7	1	10	100	1000	
2-CYCLOHEXEN-1-ONE,3,5,5-TRIMETHYL-	00078-59-1	10	7,1,3,6	1	10	100	1000	E
CYCLOHEXENE	00110-83-8	10	6	1	10	100	1000	N
CYCLOHEXENE, 4-ETHYL-	00100-40-3	10	7,6	1	10	100	1000	V
CYCLOHEXIMIDE	00066-81-9	1	6,4	0.1	1	10	100	I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
CYCLOHEXYL CHLORIDE	00542-18-7	10	6	1	10	100	1000	
2-CYCLOHEXYL-4,6-DINITROPHENOL	00131-89-5	10	2,1,3	1	10	100	1000	
CYCLOHEXYLAMINE	00108-91-8	1	1,4,6	0.1	1	10	100	3
CYCLONITE	00121-82-4	10	6	0.001	50	1	90	1
1,3-CYCLOPENTADIENE, 1,2,3,4,5,5-HEXACHLORO-	00077-47-4	5	2,3,7,1,4,5,6,8	0.5	5	50	500	0
CYCLOPENTANE	00287-92-3	50	7,6,1	5	50	500	5000	
CYCLOPENTANE, METHYL-	00096-37-7	10	1,7,6	1	10	100	1000	C
CYCLOPENTANONE	00120-92-3	50	6	5	50	500	5000	M
CYCLOPHOSPHAMIDE	00050-18-0	5	2,3,6	0.5	5	50	500	R

CYCLOPROPANE	00075-19-4	10	1,6,7	1	10	100	1000	:
CYCLOPROPANECARBOXYLIC ACID, 2,2-DIMETHYL-3-(2-...	00121-21-1	1	7,3	0.1	1	10	100	
CYCLOPROPANECARBOXYLIC ACID, 3-(3-METHOXY-2-MET...	00121-29-9	1	7,1,3	0.1	1	10	100	D
CYHEXATIN	13121-70-5	1	6,1	0.1	1	10	100	E
p-CYMENE	00099-87-6	10	6	1	10	100	1000	P
2,4-D	00094-75-7	10	2,8,1,3,6	1	10	100	1000	A
2,4-DB	00094-82-6	10	5	1	10	100	1000	R
2,4-D ESTERS	00094-11-1	10	3,6	1	10	100	1000	T
2,4-D ESTERS	00094-79-1	10	3,6	1	10	100	1000	M

2,4-D ESTERS	00094-80-4	10	3,6	1	10	100	1000	E
2,4-D ESTERS	01320-18-9	10	3,6	1	10	100	1000	N
2,4-D ESTERS	01928-38-7	10	3,6	1	10	100	1000	T
2,4-D ESTERS	01928-61-6	10	3,6	1	10	100	1000	
2,4-D ESTERS	01929-73-3	10	3,6	1	10	100	1000	O
2,4-D ESTERS	02971-38-2	10	3,6	1	10	100	1000	F
2,4-D ESTERS	25168-26-7	10	3,6	1	10	100	1000	
2,4-D ESTERS	53467-11-1	10	3,6	1	10	100	1000	E
2,4-D, SALTS AND ESTERS	00094-75-7	10	3,1,2,6,8	1	10	100	1000	N
DASANIT	00115-90-2	1	6,4,1	0.1	1	10	100	V
DAUNOMYCIN	20830-81-3	5	6,2,3	0.5	5	50	500	I
								R

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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
DBCP	00096-12-8	1	8,2,3,6	0.1	1	10	100	
DDD	72-54-8	1	2,3,1,6	0.0002	0.05	10	40	
4,4-DDD	00072-54-8	1	3,1,2,6	0.0002	0.05	10	40	3
P,P'-DDE	72-55-9	1	2,3,6	0.00005	0.4	7	30	1
4,4'-DDE	72-55-9	1	2,3,6	0.00005	0.4	7	30	0
DDE	72-55-9	1	2,3,6	0.00005	0.4	7	30	
DDT	50-29-3	1	2,3,6,1	0.0003	0.001	7	30	C
4,4'-DDT	50-29-3	1	2,3,6,1	0.0003	0.001	7	30	M
DDVP	00114-26-1	1	7,6,8,1	0.1	1	10	100	R

DEAK	00096-10-6	10	6	1	10	100	1000	:
DECABORANE	17702-41-9	1	6,1,4	(See RCs of any listed constituents)				
DECABORANE(14)	17702-41-9	1	4,7,1,6	(See RCs of any listed constituents)				D
DECABROMOBIPHENYL	13654-09-6	1	6,7	0.1	1	10	100	E
DECACHLOROOCCTAHYDRO-1,3,4-METHENO-2H-CYCLOBUTA[...]	00143-50-0	1	2,3,1,6	0.1	1	10	100	P
DECAHYDRONAPHTHALENE	00091-17-8	10	1,6	1	10	100	1000	A
DECALIN	00091-17-8	10	1,6	1	10	100	1000	R
DECYL ACRYLATE	02156-96-9	100	6,1	10	100	1000	10000	T
DEHP	00117-81-7	10	2,3,5,8,6	0.006	50	100	700	M

DELANOV	00078-34-2	1	6,4,1	0.1	1	10	100	E
DEMETON	08065-48-3	1	4,6	0.1	1	10	100	N
DEMETON-S-METHYL	00919-86-8	1	4	0.1	1	10	100	T
DENATURED ALCOHOL (DEP RQ in gallons)	00064-17-5	10	6,1	1	10	100	1000	
DEUTERIUM	07782-39-0	10	6,7	1	10	100	1000	O
DFP	00055-91-4	10	2,1,3,4	1	10	100	1000	F
DGE	02238-07-5	1	6,4	0.1	1	10	100	
DI(2-ETHYLHEXYL)PHTHALATE	117-81-7	10	2,3,5,8,6	0.006	50	100	700	E
DI-N-BUTYL PHTHALATE	00084-74-2	5	2,3,1,6,8	0.5	5	50	500	N
DI-N-OCTYL PHTHALATE	00117-84-0	100	1,2,3	10	100	1000	10000	V
DI-N-PROPYLNITROSAMINE	00621-64-7	5	2,3,6,8	0.5	5	50	500	I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
DI-SEC OCTYL PHTHALATE	117-81-7	10	2,3,5,8,6	0.006	50	100	700	
DI-TERT-BUTYL PEROXIDE	00110-05-4	10	1,6	1	10	100	1000	
DIACETONE ALCOHOL	00123-42-2	10	1,6	1	10	100	1000	3
DIACETYL	00431-03-8	50	1,6	5	50	500	5000	1
DIACETYL PEROXIDE	00110-22-5	10	6,1	1	10	100	1000	0
DIALIFOS	10311-84-9	1	4,1	0.1	1	10	100	
DIALLATE	02303-16-4	10	6,2,3,8,1	1	10	100	1000	C
DIAMINE	00302-01-2	1	2,3,1,4,5,6,8	0.1	1	10	100	M
1,2-DIAMINOETHANE	00107-15-3	100	6,1,3,4	10	100	1000	10000	R

2,4-DIAMINOTOLUENE	00095-80-7	5	6,8,2,3	0.5	5	50	500	:
DIAMINOTOLUENE	00095-80-7	5	3,2,6,8	0.5	5	50	500	
DIAMINOTOLUENE	00496-72-0	5	3,2,6	0.5	5	50	500	D
DIAMINOTOLUENE	00823-40-5	5	3,2,6	0.5	5	50	500	E
DIAMINOTOLUENE	25376-45-8	5	3,2,8,6	0.5	5	50	500	P
DIAMINOTOLUENE, N.O.S.	25376-45-8	5	2,3,8,6	0.5	5	50	500	A
DIAMMONIUM OXALATE	06009-70-7	100	6	(See RCs of any listed constituents)				R
DIAMYLAMINE	02050-92-2	100	6	10	100	1000	10000	T
1,2-DIAZIDOETHANE	00107-15-3	100	1,3,4,6	10	100	1000	10000	M
DIAZINON	00333-41-5	1	1,3,6	0.1	1	10	100	E

DIAZOMETHANE	00334-88-3	10	8,6	1	10	100	1000	N
1,2,5,6-DIBENZANTHRACENE	53-70-3	1	3,2,6	0.0005	0.04	2	30	T
DIBENZOFURAN	00132-64-9	10	5	1	10	100	1000	
DIBENZO(A,I)PYRENE	00189-55-9	5	6,2,3	0.5	5	50	500	O
DIBENZO-P-DIOXIN, 2,3,7,8-TETRACHLORO-	1746-01-6	1	6,2,3	3E-08	4E-05	2E-05	6E-05	F
DIBENZOYL PEROXIDE	00094-36-0	10	6,1,8	1	10	100	1000	
DIBENZO[B,E][1,4]DIOXIN, 2,3,7,8-TETRACHLORO-	1746-01-6	1	7,6,2,3	3E-08	4E-05	2E-05	6E-05	E
1,2,7,8-DIBENZPYRENE	00189-55-9	5	2,3,6	0.5	5	50	500	N
DIBENZ[A,H]ANTHRACENE	53-70-3	1	3,7,6	0.0005	0.04	2	30	V
								I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
DIBENZ[A,I]PYRENE	00189-55-9	5	2,3,6	0.5	5	50	500	
DIBENZO[A,H]ANTHRACENE	53-70-3	1	3,7,6	0.0005	0.04	2	30	
DIBORANE	19287-45-7	1	4,6,1	(See RCs of any listed constituents)				3
DIBORANE(6)	19287-45-7	1	7,1,4,6	(See RCs of any listed constituents)				1
DIBORON HEXAHYDRIDE	19287-45-7	1		(See RCs of any listed constituents)				0
DIBROM	00300-76-5	5	6,1,3	0.5	5	50	500	
1,2-DIBROMO-3-CHLOROPROPANE	00096-12-8	1	2,3,6,8	0.1	1	10	100	C
DIBROMOCHLOROMETHANE	124-48-1	10	1,3,6	0.002	0.02	0.005	0.03	M
DIBROMOCHLOROPROPANE	00096-12-8	1	6,2,3,8	0.1	1	10	100	R

1,2-DIBROMOETHANE	106-93-4	1	1,2,3,8,6	0.00002	0.002	0.1	0.1	:
DIBROMOMETHANE	00074-95-3	50	1,2,3,8,6	5	50	500	5000	
DIBUTYL ETHER	00142-96-1	10	6,1	1	10	100	1000	D
tert-DIBUTYL PEROXIDE	00110-05-4	10	6,1	1	10	100	1000	E
DIBUTYL PHOSPHITE	01809-19-4	100	6	10	100	1000	10000	P
DIBUTYL PHTHALATE	00084-74-2	5	3,6,8,1,2	0.5	5	50	500	A
DIBUTYLAMINE	00111-92-2	10	6	1	10	100	1000	R
DICAMBA	01918-00-9	50	1,3,6	5	50	500	5000	T
DICHLOBENIL	01194-65-6	10	1,3,6	1	10	100	1000	M

DICHLOFENTHION	00097-17-6	1	1	0.1	1	10	100	E
DICHLONE	00117-80-6	1	1,3,6	0.1	1	10	100	N
2,2-DICHLORO ISOPROPYL ETHER	108-60-1	50	1,2,3,6,8	0.03	0.1	0.7	0.7	T
2,2-DICHLORO ISOPROPYL ETHER	39638-32-9	50	1,2,3,6,8	0.03	0.1	0.7	0.7	
1,1-DICHLORO-1-NITROETHANE	00594-72-9	10	6	1	10	100	1000	O
1,1-DICHLORO-2,2-BIS(P-CHLOROPHENYL) ETHANE	72-54-8	1	1,2,3,6	0.0002	0.05	10	40	F
1,4-DICHLORO-2-BUTENE	00764-41-0	1	2,3,1,6,8	0.1	1	10	100	
3,5-DICHLORO-N-(1,1-DIMETHYL-2-PROPYNYL)BENZAMIDE	23950-58-5	100	2,3,1,6,8	10	100	1000	10000	E
DICHLOROACETYL CHLORIDE	00079-36-7	10	1,6	1	10	100	1000	N
S-(2,3-DICHLOROALLYL) DIISOPROPYLTHIOCARBAMATE	02303-16-4	10	2,3,6,8,1	1	10	100	1000	V
DICHLOROBENZALKONIUM CHLORIDE	08023-53-8	100		10	100	1000	10000	I
1,2-DICHLOROBENZENE	95-50-1	10	3,8,1,2,5,6	0.6	2	9	100	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
o-DICHLOROBENZENE	95-50-1	10	1,2,3,5,6,8	0.6	2	9	100	
1,4-DICHLOROBENZENE	00106-46-7	10	3,8,1,2,5,6	0.005	0.06	0.7	1	
p-DICHLOROBENZENE	00106-46-7	10	1,2,3,5,6,8	0.005	0.06	0.7	1	3
1,3-DICHLOROBENZENE	00541-73-1	10	3,8,1,2,6	0.1	6	3	200	1
m-DICHLOROBENZENE	00541-73-1	10	3,1,2,8,6	0.1	6	3	200	0
DICHLOROBENZENE	25321-22-6	10	3	0.005	0.2	0.7	4	
DICHLOROBENZENE, N.O.S.	25321-22-6	10	2,3,8,6,3	0.005	0.2	0.7	4	C
3,3'-DICHLOROBENZIDINE	00091-94-1	1	2,3,6,8	0.08	2	3	20	M
DICHLOROBENZIDINE	00091-94-1	1	2,3,6,8	0.08	2	3	20	R

3,3'-DICHLOROBENZIDINE DIHYDROCHLORIDE	00612-83-9	1	6	0.1	1	10	100	:
DICHLOROBROMOMETHANE	75-27-4	100	6	0.003	0.006	0.1	0.1	
1,3-DICHLOROBUTENE	00926-57-8	10	1,6	1	10	100	1000	D
DICHLOROBUTENE	00926-57-8	10	1,6	1	10	100	1000	E
1,3-DICHLOROBUTENE-2	00926-57-8	10	6,1	1	10	100	1000	P
trans-1,4-DICHLOROBUTENE	00110-57-6	1	4	0.1	1	10	100	A
DICHLORODIFLUOROMETHANE	00075-71-8	100	1,2,3,6,8	10	100	1000	10000	R
DICHLORODIPHENYL DICHLOROETHANE	72-54-8	1	2,1,3,6	0.0002	0.05	10	40	T
DICHLORODIPHENYL DICHLOROETHYLENE	72-55-9	1	2,3,6	0.00005	0.4	7	30	M
DICHLORODIPHENYL TRICHLOROETHANE	50-29-3	1	1,2,3,6	0.0003	0.001	7	30	E
1,1-DICHLOROETHANE	75-34-3	50	1,2,3,6,8	0.07	2	0.4	9	N

1,2-DICHLOROETHANE	107-06-2	10	1,2,3,5,8,6	0.005	0.005	0.1	0.1	T
1,1-DICHLOROETHENE	75-35-4	10	6,1,2,3,5,8	0.007	0.08	3	40	
trans-1,2-DICHLOROETHENE	156-60-5	50	6,1,2,3,5	0.09	0.09	1	1	O
1,2-DICHLOROETHENE	540-59-0	10	6,8	0.07	0.1	0.3	0.4	F
DICHLOROETHYL ETHER	111-44-4	5	2,3,,6,8,4,1	0.03	0.03	0.7	0.7	
1,1-DICHLOROETHYLENE	75-35-4	10	6,1,2,3,5,8	0.007	0.08	3	40	E
1,2-trans-DICHLOROETHYLENE	156-60-5	50	6,1,2,3,5	0.09	0.09	1	1	N
1,2-DICHLOROETHYLENE	156-60-5	50	6,1,2,3,5	0.09	0.09	1	1	V
1,2-DICHLOROETHYLENE	00540-59-0	10	6,8	0.07	0.1	0.3	0.4	I
sym-DICHLOROETHYLENE	00540-59-0	10	6,8	0.07	0.1	0.3	0.4	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
DICHLOROETHYLENE-CIS	156-59-2	10	6,5	0.02	0.02	0.1	0.1	
DICHLOROETHYLENE-TRANS	156-60-5	50	6,1,2,3,5	0.09	0.09	1	1	
DICHLOROISOPROPYL ETHER	108-60-1	50	1,2,3,6,8	0.03	0.1	0.7	0.7	3
DICHLOROISOPROPYL ETHER	39638-32-9	50	1,2,3,6,8	0.03	0.1	0.7	0.7	1
DICHLOROMETHANE	75-09-2	50	3,6,7,1,2,5,8	0.005	2	0.1	3	0
DICHLOROMETHOXY ETHANE	00111-91-1	50	2,3,6,8	5	50	500	5000	
DICHLOROMETHYL ETHER	00542-88-1	5	3,2,4,6,8	0.5	5	50	500	
DICHLOROMETHYLPHENYLSILANE	00149-74-6	1	4	0.1	1	10	100	C
2,6-DICHLOROPHENOL	00087-65-0	10	1,2,3,6	1	10	100	1000	M
2,4-DICHLOROPHENOL	00120-83-2	10	1,2,3,8,6	0.01	2	0.7	40	R

2,4-DICHLOROPHENOXYACETIC ACID	00094-75-7	10	1,6,2,3,8	1	10	100	1000	
2,4-DICHLOROPHENOXYACETIC ACID, SALTS AND ESTERS	00094-75-7	10	2,3,1,6,8	1	10	100	1000	D
DICHLOROPHENYLARSINE	00696-28-6	1	2,3,1,4	0.1	1	10	100	E
DICHLOROPHENYLTRICHLOROSILANE	27137-85-5	1	1,4	0.1	1	10	100	P
1,2-DICHLOROPROPANE	78-87-5	50	1,2,3,5,6,8	0.003	0.003	0.1	0.1	A
1,1-DICHLOROPROPANE	00078-99-9	50	1,3,6	5	50	500	5000	R
1,3-DICHLOROPROPANE	00142-28-9	50	1,3,6	5	50	500	5000	T
DICHLOROPROPANE	26638-19-7	50	3,2,6	0.005	0.009	0.1	0.2	M
DICHLOROPROPANE - DICHLOROPROPENE (MIXTURE)	08003-19-8	10	3,6	(See RCs of any listed constituents)				E

DICHLOROPROPANE, N.O.S.	26638-19-7	50	2,3,6	0.005	0.009	0.1	0.2	N
2,3-DICHLOROPROPENE	00078-88-6	10	3,6,8	1	10	100	1000	T
1,3-DICHLOROPROPENE	542-75-6	10	6,3,2,1,8	0.0004	0.01	0.01	0.4	
DICHLOROPROPENE	542-75-6	10	6,3,2,1,8	0.0004	0.01	0.01	0.4	O
cis-1,3-DICHLOROPROPENE	10061-01-5	10	6	0.0005	0.005	0.01	0.1	F
trans-1,3-DICHLOROPROPENE	10061-02-6	10	6	0.0005	0.005	0.01	0.1	
DICHLOROPROPENE	26952-23-8	10	2,3	0.0005	0.005	0.01	0.1	E
DICHLOROPROPENE, N.O.S.	26952-23-8	10	2,3	0.0005	0.005	0.01	0.1	N
2,2-DICHLOROPROPIONIC ACID	00075-99-0	100	1,3,6	10	100	1000	10000	V
1,3-DICHLOROPROPYLENE	00542-75-6	10	8,1,2,3,6	0.0004	0.01	0.01	0.4	I
DICHLORVOS	00062-73-7	5	3,6,4,8,1	0.5	5	50	500	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
DICOFOL	00115-32-2	5	8,6,1,3	0.5	5	50	500	
DICROTOPHOS	00141-66-2	1	6,4,1	0.1	1	10	100	
DICYCLOHEXYLAMINE	00101-83-7	50	6	5	50	500	5000	3
DICYCLOPENTADIENE	00077-73-6	10	6	1	10	100	1000	1
DIELDRIN	60-57-1	1	2,3,6,1	0.0001	0.0005	0.09	0.6	0
1,2:3,4-DIEPOXYBUTANE	01464-53-5	5	2,3,4,6,8	0.5	5	50	500	
DIEPOXYBUTANE	01464-53-5	5	6,8,4,2,3	0.5	5	50	500	
DIESEL FUEL (DEP RQ in gallons)		10		(See TPH RC and RCs of other relevant constituents)				C
DIETHYL 'CELLOSOLVE'	00629-14-1	10	1,6	1	10	100	1000	M

p-DIETHYL BENZENE	00105-05-5	10	6	1	10	100	1000	:
o-DIETHYL BENZENE	00135-01-3	100	6	10	100	1000	10000	
m-DIETHYL BENZENE	00141-93-5	100	6	10	100	1000	10000	D
DIETHYL CARBAMYL CHLORIDE	00088-10-8	10	6	1	10	100	1000	E
DIETHYL CARBONATE	00105-58-8	10	6	1	10	100	1000	P
DIETHYL CHLOROPHOSPHATE	00814-49-3	1	4	0.1	1	10	100	A
DIETHYL DICHLOROSILANE	01719-53-5	10	1,6	1	10	100	1000	R
DIETHYL ETHER	00060-29-7	10	6,1,3,5	1	10	100	1000	T
DIETHYL KETONE	00096-22-0	10	1,6	1	10	100	1000	M

O,O-DIETHYL O-2-PYRAZINYL PHOSPHOROTHIOATE	00297-97-2	10	2,1,3,4	1	10	100	1000	E
O,O-DIETHYL O-PYRAZINYL PHOSPHOROTHIOATE	00297-97-2	10	1,3,2,4	1	10	100	1000	N
DIETHYL PHTHALATE	84-66-2	50	1,2,3,6,8	2	9	10	200	T
O,O-DIETHYL S-METHYL DITHIOPHOSPHATE	03288-58-2	100	3,1,2,6	10	100	1000	10000	
O,O-DIETHYL S-METHYL ESTER OF PHOSPHORODITHIOIC ACID	03288-58-2	100	2,1,3,6	10	100	1000	10000	O
DIETHYL ZINC	00557-20-0	10	6,1	1	10	100	1000	F
DIETHYL-P-NITROPHENYL PHOSPHATE	00311-45-5	10	3,1,2,6	1	10	100	1000	
DIETHYLALUMINUM CHLORIDE	00096-10-6	10	6	1	10	100	1000	E
DIETHYLAMINE	00109-89-7	10	1,3,5,6,8	1	10	100	1000	N
DIETHYLARSINE	00692-42-2	1	2,3,6	0.1	1	10	100	V
DIETHYLCARBAMAZINE CITRATE	01642-54-2	1	4	0.1	1	10	100	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
1,4-DIETHYLENE DIOXIDE	00123-91-1	10	3,1,2,5,6,8	0.0003	5	0.2	5	
DIETHYLENE DIOXIDE	00123-91-1	10	6,1,2,3,5,8	0.0003	5	0.2	5	
DIETHYLENE GLYCOL METHYL ETHER	00111-77-3	10	6	1	10	100	1000	3
1,4-DIETHYLENE OXIDE	00123-91-1	10	2,1,3,5,6,8	0.0003	5	0.2	5	1
DI-(2-ETHYLHEXYL) PHOSPHORIC ACID	00298-07-7	10	1	1	10	100	1000	0
DI(2-ETHYLHEXYL)PHTHALATE	117-81-7	10	2,3,5,8,6	0.006	50	100	700	
DIETHYLHEXYL PHTHALATE	117-81-7	10	2,3,5,8,6	0.006	50	100	700	
N,N'-DIETHYLHYDRAZINE	01615-80-1	5	2,3,6	0.5	5	50	500	C
1,2-DIETHYLHYDRAZINE	01615-80-1	5	6,2,3	0.5	5	50	500	M
O,O-DIETHYLPHOSPHORIC ACID, O-P-NITROPHENYL ESTER	00311-45-5	10	2,1,3,6	1	10	100	1000	R

DIETHYLSTILBESTROL	00056-53-1	1	2,3,6	0.1	1	10	100	
DIETHYLZINC	00557-20-0	10	1,6	1	10	100	1000	D
DIFLUBENZURON	35367-38-5	1	5	0.1	1	10	100	E
DIFLUORO-1-CHLOROETHANE	00075-68-3	10	6,1,8	1	10	100	1000	P
DIFLUOROETHANE	00075-37-6	10	1,6	1	10	100	1000	A
1,1-DIFLUOROETHYLENE	00075-38-7	10	1	1	10	100	1000	R
DIGITOXIN	00071-63-6	1	4	0.1	1	10	100	T
DIGLYCIDYL ETHER	02238-07-5	1	6,4	0.1	1	10	100	M
DIGOXIN	20830-75-5	1	4	0.1	1	10	100	E
1,2-DIHYDRO-3,6-PYRIDAZINEDIONE	00123-33-1	100	2,3,1,6	10	100	1000	10000	N

DIHYDROSAFROLE	00094-58-6	5	2,3,8	0.5	5	50	500	T
3,4-DIHYDROXY-ALPHA-(METHYLAMINO)METHYL BENZYL AL..	00051-43-4	50	2,3,6	5	50	500	5000	
DIHYDROXYBENZENE	00123-31-9	1	6,4,8	0.1	1	10	100	O
DIISOBUTYL KETONE	00108-83-8	10	1,6	1	10	100	1000	F
DIISOBUTYLALUMINUM HYDRIDE	01191-15-7	10	6	1	10	100	1000	
DIISOBUTYLAMINE	00110-96-3	10	6	1	10	100	1000	E
DIISOPROPYL ETHER	00108-20-3	10	1,6	1	10	100	1000	N
DIISOPROPYL FLUOROPHOSPHATE	00055-91-4	10	3,1,2,4	1	10	100	1000	V
DIISOPROPYL PEROXYDICARBONATE	00105-64-6	10	6,1	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
DIISOPROPYLAMINE	00108-18-9	10	1,6	1	10	100	1000	
DIKETENE	00674-82-8	10	6	1	10	100	1000	
DILAULOYL PEROXIDE	00105-74-8	10	6	1	10	100	1000	3
DIMEFOX	00115-26-4	1	4	0.1	1	10	100	1
2,7,3,6-DIMETHANOLNAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXA..	72-20-8	1	7,1,3,6,4,2	0.002	0.005	20	30	0
1,2,3,4,10.10..DIMETHANONAPHTHALENE	60-57-1	1	2,3,6,1	0.0001	0.0005	0.09	0.6	
1,4,5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXACHLORO-...	00465-73-6	1	3,1,2,4	0.1	1	10	100	C
1,4,5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXACHLORO-1..	00465-73-6	1	7,1,2,3,4	0.1	1	10	100	M
1,4,5,8-DIMETHANONAPHTHLAENE, 1,2,3,4,10,10-HEXACHLORO-1..	309-00-2	1	1,2,3,8,6,4	0.0005	0.002	0.09	0.5	R

2,7,3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9 HEXA...	72-20-8	1	1,3,6,4,2	0.002	0.005	20	30	:
2,7,3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXAC..	00060-57-1	1	2,3,6,1,7	0.0001	0.0005	0.09	0.6	
DIMETHOATE	00060-51-5	5	2,3,4,1	0.5	5	50	500	D
DIMETHOXY STRICHNINE	00357-57-3	5	1,2,3,6	0.5	5	50	500	E
3,3'-DIMETHOXYBENZIDINE	00119-90-4	10	2,3,8,6	1	10	100	1000	P
3,3'-DIMETHOXYBENZIDINE DIHYDROCHLORIDE	20325-40-0	1	6	0.1	1	10	100	A
DIMETHOXYMETHANE	00109-87-5	10	6,1	1	10	100	1000	R
DIMETHYL ACETAMIDE	00127-19-5	10	6	1	10	100	1000	T
DIMETHYL CHLOROTHIOPHOSPHATE	02524-03-0	1	1,4	0.1	1	10	100	M

DIMETHYL ETHER	00115-10-6	10	1,6	1	10	100	1000	E
O,O-DIMETHYL O-(4-NITROPHENYL) PHOSPHOROTHIOATE	00298-00-0	10	2,1,3,4,6	1	10	100	1000	N
O,O-DIMETHYL O-P-NITROPHENYL PHOSPHOROTHIOATE	00298-00-0	10	3,1,2,4,6	1	10	100	1000	T
DIMETHYL PHOSPHOROCHLORIDOTHIOATE	02524-03-0	1	1,4	0.1	1	10	100	
DIMETHYLPHENOL, 2,4-	00105-67-9	10	1,2,3,8,6	0.06	40	0.7	100	O
DIMETHYL PHTHALATE	131-11-3	100	1,2,3,8,6	0.3	50	0.7	50	F
DIMETHYL SULFATE	00077-78-1	10	1,2,3,4,6,8	1	10	100	1000	
DIMETHYL SULFIDE	00075-18-3	10	1,6	1	10	100	1000	E
DIMETHYL SULPHATE	00077-78-1	10	6,1,2,3,4,8	1	10	100	1000	N
DIMETHYL-1,2-DIBROMO-2,2-DICHLOROETHYL PHOSPHAT...	00300-76-5	5	6,1,3	0.5	5	50	500	V
3,3-DIMETHYL-1-(METHYLTHIO)-2-BUTANONE, O-[(MET...	39196-18-4	10	2,3,1,4	1	10	100	1000	I
1,1-DIMETHYL-2-PHENYLETHANAMINE	00122-09-8	100	1,2,3,6	10	100	1000	10000	R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
DIMETHYL-O,O-DICHLOROVINYL-2,2-PHOSPHATE (TECHN...	00062-73-7	5	6,1,3,4,8	0.5	5	50	500	
DIMETHYL-P-PHENYLENEDIAMINE	00099-98-9	1	4	0.1	1	10	100	
DIMETHYLAMINE	00124-40-3	50	3,1,6	5	50	500	5000	3
2-(DIMETHYLAMINO) ETHANOL	00108-01-0	100	6	10	100	1000	10000	1
3-(DIMETHYLAMINO)-PROPYLAMINE	00109-55-7	10	6	1	10	100	1000	0
P-DIMETHYLAMINOAZOBENZENE	00060-11-7	5	3,6,2,8,3	0.5	5	50	500	
4-DIMETHYLAMINOAZOBENZENE	00060-11-7	5	6,8,2,3	0.5	5	50	500	
DIMETHYLANILINE	00121-69-7	100	6,8	10	100	1000	10000	C
N,N-DIMETHYLANILINE	00121-69-7	100	8,6	10	100	1000	10000	M

3,3'-DIMETHYLBENZIDINE	00119-93-7	5	8,2,6,3	0.5	5	50	500	R
alpha,alpha-DIMETHYLBENZYLHYDROPEROXIDE	00080-15-9	5	3,1,6,8	0.5	5	50	500	:
7,12-DIMETHYLBENZ[A]ANTHRACENE	00057-97-6	1	2,3,6	0.1	1	10	100	D
2,2-DIMETHYLBUTANE	00075-83-2	10	6,1	1	10	100	1000	E
2,3-DIMETHYLBUTANE	00079-29-8	10	1,6	1	10	100	1000	P
DIMETHYLCARBAMOYL CHLORIDE	00079-44-7	1	2,3,6,8	0.1	1	10	100	A
DIMETHYLCARBAMYL CHLORIDE	00079-44-7	1	8,2,3,6	0.1	1	10	100	R
DIMETHYLDICHLOROSILANE	00075-78-5	1	1,4,6	0.1	1	10	100	T
DIMETHYLFORMAMIDE	00068-12-2	10	5,6	1	10	100	1000	M
2,6-DIMETHYLHEPTANONE	00108-83-8	10	6,1	1	10	100	1000	E

1,1-DIMETHYLHYDRAZINE	00057-14-7	5	2,3,6,1,4,8	0.5	5	50	500	N
DIMETHYLHYDRAZINE	00057-14-7	5	1,4,2,3,6,8	0.5	5	50	500	T
1,2-DIMETHYLHYDRAZINE	00540-73-8	1	6,3,2	0.1	1	10	100	
N,N-DIMETHYLMETHANAMINE	00075-50-3	10	6,1,3	1	10	100	1000	O
2,6-DIMETHYLMORPHOLINE	00141-91-3	100	6	10	100	1000	10000	F
DIMETHYLNITROSAMINE	00062-75-9	5	2,3,6,4,8	0.5	5	50	500	
alpha,alpha-DIMETHYLPHENETHYLAMINE	00122-09-8	100	2,3,1,6	10	100	1000	10000	E
2,4-DIMETHYLPHENOL	105-67-9	10	1,2,3,8,6	0.06	40	0.7	100	N
2,6-DIMETHYLPHENOL	00576-26-1	50	5	0.0001	0.02	0.7	10	V
DIMETHYLPHENOL	01300-71-6	50	1,3	0.1	20	0.7	10	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
ALPHA,ALPHA-DIMETHYLPHENTHYLAMINE	00122-09-8	100	6,1,2,3	10	100	1000	10000	
2,2-DIMETHYLPROPANE	00463-82-1	10	6	1	10	100	1000	
DIMETHYLVINYL CHLORIDE	00513-37-1	1	6,7	0.1	1	10	100	3
DIMETILAN	00644-64-4	1	4	0.1	1	10	100	1
DINITRO-O-CRESOL	00534-52-1	5	6,1,2,3,4,8	0.5	5	50	500	0
4,6-DINITRO-O-CRESOL	00534-52-1	5	1,8,2,3,4,6	0.5	5	50	500	
4,6-DINITRO-O-CYCLOHEXYLPHENOL	00131-89-5	10	3,1,2,6	1	10	100	1000	C
2,4-DINITROANILINE	00097-02-9	10	6	1	10	100	1000	M
m-DINITROBENZENE	00099-65-0	10	3,6,8	1	10	100	1000	R

p-DINITROBENZENE	00100-25-4	10	3,6,8	1	10	100	1000	:
DINITROBENZENE	00528-29-0	10	6,2,3,8	1	10	100	1000	
o-DINITROBENZENE (MIXED)	00528-29-0	10	2,3,6,8	1	10	100	1000	D
DINITROBENZENE (MIXED)	25154-54-5	10	1,3,6	1	10	100	1000	E
DINITROBENZENE, N.O.S.	00528-29-0	10	2,3,6,8	1	10	100	1000	P
1,2-DINITROBENZOL	00528-29-0	10	6,2,3,8	1	10	100	1000	A
DINITROCRESOL	00534-52-1	5	4,1,2,3,6,8	0.5	5	50	500	R
DINITROCYCLOHEXYLPHENOL	00131-89-5	10	1,2,3,6	1	10	100	1000	T
2,4-DINITROPHENOL	51-28-5	5	2,3,8,6	0.2	20	3	50	M

2,5-DINITROPHENOL	00329-71-5	5	3,6	0.5	5	50	500	E
2,6-DINITROPHENOL	00573-56-8	5	3,6	0.5	5	50	500	N
DINITROPHENOL	25550-58-7	5	3,1,6	0.2	2	3	6	T
2,4-DINITROTOLUENE	00121-14-2	5	2,3,8,6	0.03	20	0.7	10	
DINITROTOLUENE	00121-14-2	5	2,3,8,6	0.03	20	0.7	10	O
2,6-DINITROTOLUENE	00606-20-2	10	2,3,8,6	1	10	100	1000	F
3,4-DINITROTOLUENE	00610-39-9	5	3,6	0.5	5	50	500	
DINITROTOLUENE	25321-14-6	5	1,3,6	0.03	2	0.7	2	E
DINOBTON	00973-21-7	1	1	0.1	1	10	100	N
DINOSEB	00088-85-7	50	1,3,4,2	5	50	500	5000	V
								I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
DINOTERB	01420-07-1	1	4	0.1	1	10	100	
N-DIOCTYL PHTHALATE	00117-84-0	100	1,2,3	10	100	1000	10000	
DIOCTYL PHTHALATE	00117-84-0	100	1,2,3	10	100	1000	10000	3
DIOXACARB	06988-21-2	10	1	1	10	100	1000	1
1,4-DIOXANE	00123-91-1	10	2,3,5,8,6,1	0.0003	5	0.2	5	0
DIOXANE	00123-91-1	10	1,6,2,3,5,8	0.0003	5	0.2	5	
p-DIOXANE	00123-91-1	10	6,1,2,3,5,8	0.0003	5	0.2	5	C
DIOXATHION	00078-34-2	1	4,6,1	0.1	1	10	100	M
DIOXINS (RCs expressed as equivalents of 2,3,7,8 tetrachlorodibenzo-p-dioxin)		1	5	3.00E-08	4.00E-05	2.00E-05	5.00E-05	R

DIOXOLANE	00646-06-0	50	1,6	5	50	500	5000	:
1,3-DIOXOLANE	00646-06-0	50	7,1,6	5	50	500	5000	
DIPHACINONE	00082-66-6	1	4,1	0.1	1	10	100	D
DIPHENAMID	00957-51-7	50	5	5	50	500	5000	E
DIPHENYL	92-52-4	1	6,8,5,1	0.002	0.2	0.05	6	P
1,2-DIPHENYL HYDRAZINE	00122-66-7	5	8,2,3,6	0.5	5	50	500	A
DIPHENYLAMINE	00122-39-4	1	2,5,6	0.1	1	10	100	R
DIPHENYLDICHLOROSILANE	00080-10-4	10	6,1	1	10	100	1000	T
1,2-DIPHENYLHYDRAZINE	00122-66-7	5	2,3,6,8	0.5	5	50	500	M
DIPHOSGENE	00075-44-5	5	1,2,3,4,6,8	0.5	5	50	500	E
DIPHOSPHORAMIDE, OCTAMETHYL-	00152-16-9	10	2,3,7,4,1	1	10	100	1000	N

DIPHOSPHORIC ACID, TETRAETHYL ESTER	00107-49-3	5	1,2,3,4,6	0.5	5	50	500	T
DIPROPYLAMINE	00142-84-7	100	3,6	10	100	1000	10000	
DIPYRIDO[1,2-A,2',1'-C]PYRAZINEDIIUM, 6,7-DIHYDRO-	02764-72-9	50	7,3	5	50	500	5000	O
DIPYRIDO[1,2-A,2',1'-C]PYRAZINEDIIUM, 6,7-DIHYDRO.	00085-00-7	50	7,1,3,6	5	50	500	5000	F
DIQUAT	00085-00-7	50	1,3,6	5	50	500	5000	
DIQUAT	02764-72-9	50	3,6	5	50	500	5000	E
DIQUAT DIBROMIDE	00085-00-7	50	6	5	50	500	5000	N
DI-SEC OCTYL PHTHALATE	00117-81-7	10	2,3,5,8,6	0.006	50	100	700	V
DISULFIDE, DIMETHYL	00624-92-0	50	7	5	50	500	5000	I
DISULFOTON	00298-04-4	1	1,3,6,4	0.1	1	10	100	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
DISYSTON	00298-04-4	1	6,1,3,4	0.1	1	10	100	
DITHIAZININE IODIDE	00514-73-8	1	4	0.1	1	10	100	
2,4-DITHIOBIURET	00541-53-7	10	1,2,3,4	1	10	100	1000	3
DITHIOBIURET	00541-53-7	10	4,1,2,3	1	10	100	1000	1
1,3-DITHIOLANE-2-CARBOXALDEHYDE, 2,4-DIMETHYL-,...	26419-73-8	1	4	0.1	1	10	100	0
DITHIONOUS ACID, ZINC SALT (1:1)	07779-86-4	50	7,1,3	(See RCs of any listed constituents)				
DITHIOPYROPHOSPHORIC ACID, TETRAETHYL-ESTER	03689-24-5	10	2,3,1,4,6	1	10	100	1000	C
DIULANE	00646-06-0	50	1,6	5	50	500	5000	M
DIURON	00330-54-1	10	1,3,6	1	10	100	1000	R

DNBP	00088-85-7	50	2,1,3,4	5	50	500	5000	:
DODECYLBENZENESULFONIC ACID	27176-87-0	50	1,3,6	5	50	500	5000	
DODECYL TRICHLOROSILANE	04484-72-4	10	1	1	10	100	1000	D
DURSBAN	02921-88-2	1	6,1,3	0.1	1	10	100	E
DYFONATE	00944-22-9	1	6,4,1	0.1	1	10	100	P
EDIFENPHOS	17109-49-8	1	1	0.1	1	10	100	A
EDTA	00060-00-4	100	1,3	10	100	1000	10000	R
EHTAN, 1,1'-THIOBIS[2-CHLORO-	00505-60-2	1	7,2,4,6,8	0.1	1	10	100	T
EMETAN,6',7',10,11-TETRAMETHOXY-,DIHYDROCHLORIDE	00316-42-7	1	7,4	0.1	1	10	100	M

EMETINE, DIHYDROCHLORIDE	00316-42-7	1	4	0.1	1	10	100	E
ENDOSULFAN	115-29-7	1	1,2,3,6,4	0.002	0.002	0.6	1	N
alpha-ENDOSULFAN	959-98-8	1	1,2,3,6,4	0.002	0.002	0.5	1	T
beta-ENDOSULFAN	33213-65-9	1	1,2,3,6,4	0.002	0.002	0.5	1	
ENDOSULFAN SULFATE	01031-07-8	1	1,3,6	(See RCs of any listed constituents)				O
ENDOTHALL	00145-73-3	50	1,2,3,6	5	50	500	5000	F
ENDOTHION	02778-04-3	1	4	0.1	1	10	100	
ENDRIN	72-20-8	1	1,3,6,4,2	0.002	0.005	20	30	E
ENDRIN ALDEHYDE	07421-93-4	1	1,3,6	0.1	1	10	100	N
ENDRIN AND METABOLITES	72-20-8	1	1,3,6,4,2	0.002	0.005	20	30	V
EPICHLOROHYDRIN	00106-89-8	10	1,3,5,8,6,4,2	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
EPINEPHRINE	00051-43-4	50	3,2,6	5	50	500	5000	
EPN	02104-64-5	1	6,4,1	0.1	1	10	100	
4,7-EPOXYISOBENZOFURAN-1,3-DIONE, HEXAHYDRO-3A,7A-DI..	00056-25-7	1	7,4	0.1	1	10	100	3
1,2-EPOXYPROPANE	00075-56-9	10	6,1,3,4,5,8	1	10	100	1000	1
ERGOCALCIFEROL (VITAMIN D)	00050-14-6	1	4,6	0.1	1	10	100	0
ERGOTAMAN-3',6',18-TRIONE, 12'-HYDROXY-2'-METHYL..	00379-79-3	1	7,4	0.1	1	10	100	
ERGOTAMINE TARTRATE	00379-79-3	1	4	0.1	1	10	100	C
ERIONITE	66733-21-9	1	6,7	0.1	1	10	100	M
ETHANAL	00075-07-0	50	3,1,5,6,8	5	50	500	5000	R

ETHANAMINE	00075-04-7	10	6,7,1,3	1	10	100	1000	:
ETHANAMINE, 1,1-DIMETHYL-2-PHENYL-	00122-09-8	100	2,3,1,6	10	100	1000	10000	
ETHANAMINE, 2-CHLORO-N,N-BIS(2-CHLOROETHYL)-	00555-77-1	1	7,4	0.1	1	10	100	D
ETHANAMINE, 2-CHLORO-N-(2-CHLOROETHYL)-N-ETHYL-	00538-07-8	1	7,4	0.1	1	10	100	E
ETHANAMINE, 2-CHLORO-N-(2-CHLOROETHYL)-N-METHYL-	00051-75-2	1	7,4,6,8	0.1	1	10	100	P
ETHANAMINE, N,N-DIETHYL-	00121-44-8	100	1,3,5,6	10	100	1000	10000	A
ETHANAMINE, N-ETHYL-	00109-89-7	10	1,3,5,6,8	1	10	100	1000	R
ETHANAMINE, N-ETHYL-N-NITROSO-	00055-18-5	1	2,3,7,6,8	0.1	1	10	100	T
ETHANAMINIUM, 2-CHLORO-N,N,N-TRIMETHYL-, CHLORIDE	00999-81-5	1	7,4	0.1	1	10	100	M

ETHANAMINIUM, 2-[(AMINOCARBONYL)OXY]-N,N,N-TRIME..	00051-83-2	1	7,4	0.1	1	10	100	E
ETHANE	00074-84-0	10	1,6,7	1	10	100	1000	N
ETHANE, 1,1'-OXYBIS(2-CHLORO-	111-44-4	5	2,3,6,8,4,1	0.03	0.03	0.7	0.7	T
ETHANE, 1,1'-OXYBIS-	00060-29-7	10	3,7,1,5,6	1	10	100	1000	
ETHANE, 1,1'-[METHYLENEBIS(OXY)]BIS(2-CHLORO-	00111-91-1	50	2,3,6,8	5	50	500	5000	O
ETHANE, 1,1,1,2,2,2-HEXACHLORO-	67-72-1	10	1,2,3,5,6,8	0.008	0.1	0.7	3	F
ETHANE, 1,1,1,2-TETRACHLORO-	630-20-6	10	2,3,7,6,8	0.005	0.01	0.1	0.1	
ETHANE, 1,1,1-TRICHLORO-	71-55-6	50	1,2,3,5,6,7,8	0.2	4	30	600	E
ETHANE, 1,1,1-TRICHLORO-2,2-BIS(P-CHLOROPHENYL)-	50-29-3	1	1,2,3,6	0.0003	0.001	7	30	N
ETHANE, 1,1,1-TRICHLORO-2,2-BIS(P-METHOXYPHENYL)-	72-43-5	1	1,2,3,6,8	0.01	0.01	300	400	V
ETHANE, 1,1,2,2-TETRABROMO-	00079-27-6	50	7,1,6	5	50	500	5000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
ETHANE, 1,1,2,2-TETRACHLORO-	79-34-5	10	1,2,3,7,5,6,8	0.002	0.009	0.005	0.02	
ETHANE, 1,1,2-TRICHLORO-	79-00-5	10	2,3,5,6,7,8	0.005	0.9	0.1	2	
ETHANE, 1,1-DICHLORO-	75-34-3	50	3,7,1,2,6,8	0.07	2	0.4	9	3
ETHANE, 1,1-DICHLORO-	00107-07-3	1	1,4,6	0.1	1	10	100	1
ETHANE, 1,1-DICHLORO-1-NITRO-	00594-72-9	10	7,6	1	10	100	1000	0
ETHANE, 1,1-DICHLORO-2,2-BIS(P-CHLOROPHENYL)-	72-54-8	1	2,1,3,6	0.0002	0.05	10	40	
ETHANE, 1,1-DIETHOXY-	00105-57-7	10	1,6	1	10	100	1000	C
ETHANE, 1,2-BIS(2-CHLOROETHOXY)-	00112-26-5	100	7,6	10	100	1000	10000	M
ETHANE, 1,2-DIBROMO-	106-93-4	1	1,2,3,8,6	0.00002	0.002	0.1	0.1	R

ETHANE, 1,2-DICHLORO-	107-06-2	10	3,1,2,5,6,8	0.005	0.005	0.1	0.1	:
ETHANE, 1,2-DIETHOXY-	00629-14-1	10	7,1,6	1	10	100	1000	
ETHANE, 1,2-DIMETHOXY-	00110-71-4	10	7,6	1	10	100	1000	D
ETHANE, 1-CHLORO-1,1-DIFLUORO-	00075-68-3	10	7,1,6,8	1	10	100	1000	E
ETHANE, BROMO	00074-96-4	10	7,6	1	10	100	1000	P
ETHANE, CHLORO	00075-00-3	10	7,1,3,5,6,8	1	10	100	1000	A
ETHANE, HEXACHLORO-	67-72-1	10	1,2,3,5,6,7,8	0.008	0.1	0.7	3	R
ETHANE, METHOXY-	00540-67-0	10	7,1,6	1	10	100	1000	T
ETHANE, NITRO-	00079-24-3	10	7,1,6	1	10	100	1000	M

ETHANE, PENTACHLORO-	00076-01-7	5	2,3,7,1	0.5	5	50	500	E
1,2-ETHANEDIAMINE	00107-15-3	100	1,3,4,6	10	100	1000	10000	N
1,2-ETHANEDIAMINE, N,N-DIMETHYL-N'-2-PYRIDINYL-N'-(2..	00091-80-5	100	7,2,3,6	10	100	1000	10000	T
ETHANEDINITRILE	00460-19-5	10	2,7,1,3,6	1	10	100	1000	
ETHANEDIOIC ACID, AMMONIUM IRON SALT	55488-87-4	50	7,3,6	(See RCs of any listed constituents)				O
ETHANEDIOIC ACID, AMMONIUM IRON(3+) SALT	02944-67-4	50	7,3,6	(See RCs of any listed constituents)				F
ETHANEDIOIC ACID, AMMONIUM SALT	14258-49-2	100	7,3,6	(See RCs of any listed constituents)				
ETHANEDIOIC ACID, COPPER(2+) SALT (1:1), HEMIHYD..	05893-66-3	10	7,3,6	(See RCs of any listed constituents)				E
ETHANEDIOIC ACID, DIAMMONIUM SALT, MONOHYDRATE	06009-70-7	100	7,3,6	(See RCs of any listed constituents)				N
ETHANEDIOIC ACID, MONOAMMONIUM SALT, MONOHYDRATE	05972-73-6	100	7,3,6	(See RCs of any listed constituents)				V
1,2-ETHANEDIOL, DINITRATE	00628-96-6	10	3,7,1,6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
1,2-ETHANEDIYLBISCARBAMODITHIOIC ACID,SALTS AND ESTERS	00111-54-6	100	2,3,1,6	10	100	1000	10000	
ETHANENITRILE	00075-05-8	100	2,3,1,6,8	10	100	1000	10000	
ETHANEPEROXOIC ACID	00079-21-0	1	7,1,4,6,8	0.1	1	10	100	3
ETHANEPEROXOIC ACID, 1,1-DIMETHYLETHYL ESTER	00107-71-1	100	7,1,6	10	100	1000	10000	1
ETHANESULFONYL CHLORIDE, 2-CHLORO-	01622-32-8	1	7,4	0.1	1	10	100	0
ETHANETHIOAMIDE	00062-55-5	5	2,3,7,6,8	0.5	5	50	500	
ETHANETHIOL	00075-08-1	10	6,7,1	1	10	100	1000	
ETHANIMIDOTHIOIC ACID, 2-(DIMETHYLAMINO)-N-[[ME..	23135-22-0	1	7,4,5,1	0.1	1	10	100	C
ETHANIMIDOTHIOIC ACID, N-[(METHYLAMINO)CARBONYL..	16752-77-5	10	7,1,2,3,4,6	1	10	100	1000	M

ETHANOL (DEP RQ in gallons)	00064-17-5	10	1,7,6	1	10	100	1000	R
ETHANOL 2-(DIMETHYLAMINO)-	00108-01-0	100	7,6	10	100	1000	10000	:
2-ETHANOL, (2-AMINOETHOXY)	00929-06-6	50	1,6	5	50	500	5000	D
ETHANOL, 1,2-DICHLORO-, ACETATE	10140-87-1	1	4,7	0.1	1	10	100	E
ETHANOL, 2,2'-(NITROSOIMINO)BIS-	01116-54-7	1	2,3,6	0.1	1	10	100	P
ETHANOL, 2-(1-METHYLETHOXY)-	00109-59-1	10	7,6	1	10	100	1000	A
ETHANOL, 2-(2-METHOXYETHOXY)-	00111-77-3	10	7,6	1	10	100	1000	R
ETHANOL, 2-(METHYLAMINO)-	00109-83-1	10	7,6	1	10	100	1000	T
ETHANOL, 2-AMINO-	00141-43-5	10	7,1,6	1	10	100	1000	M

ETHANOL, 2-BUTOXY-	00111-76-2	10	7,6	1	10	100	1000	E
ETHANOL, 2-ETHOXY-	00110-80-5	10	2,1,3,6,8	1	10	100	1000	N
ETHANOL, 2-ETHOXY-, ACETATE	00111-15-9	10	7,1,6	1	10	100	1000	T
ETHANOL, 2-FLUORO-	00371-62-0	1	7,4	0.1	1	10	100	
ETHANOL, 2-METHOXY-	00109-86-4	10	7,1,5,6,8	1	10	100	1000	O
ETHANOL, 2-METHOXY-, ACETATE	00110-49-6	10	7,1,6	1	10	100	1000	F
ETHANOLAMINE	00141-43-5	10	6,1	1	10	100	1000	
ETHANONE, 1-PHENYL-	00098-86-2	100	2,3,7,1,6,8	10	100	1000	10000	E
ETHANONE, 2-CHLORO-1-PHENYL-	00532-27-4	10	7,6,8	1	10	100	1000	N
ETHANOYL CHLORIDE	00075-36-5	100	2,3,1,6	10	100	1000	10000	V
ETHENAMINE, N-METHYL-N-NITROSO-	04549-40-0	5	7,2,3,6,8	0.5	5	50	500	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
ETHENE	00074-85-1	1	6,7,1,8	0.1	1	10	100	
ETHENE , 1,2-DICHLORO-	540-59-0	10	7,6,8	0.07	0.1	0.3	0.4	
ETHENE, (2-CHLOROETHOXY)-	00110-75-8	50	2,1,3,6	5	50	500	5000	3
ETHENE, (2-METHOXYETHOXY)-	01663-35-0	10	7,6	1	10	100	1000	1
ETHENE, 1,1-DICHLORO-	00075-35-4	10	2,3,7,1,5,6,8	0.007	0.08	3	40	0
ETHENE, 1,1-DIFLUORO	00075-38-7	10	7,6,1	1	10	100	1000	
ETHENE, 1,2-DICHLORO-	156-60-5	50	7,6,1,2,3,5	0.09	0.09	1	1	C
ETHENE, 1,2-DICHLORO- (E)	156-60-5	50	6,1,2,3,5	0.09	0.09	1	1	M
ETHENE, CHLORO-	75-01-4	1	1,2,3,5,6,7,8	0.002	0.002	0.3	0.7	R

ETHENE, CHLOROTRIFLUORO-	00079-38-9	10	7,1,6	1	10	100	1000	:
ETHENE, FLUORO	00075-02-5	10	7,1,6	1	10	100	1000	
ETHENE, METHOXY-	00107-25-5	10	7,1,6	1	10	100	1000	D
ETHENE, TETRACHLORO-	127-18-4	10	1,3,5,6,8	0.005	0.02	1	4	E
ETHENE, TETRAFLUORO	00116-14-3	10	7,1,6	1	10	100	1000	P
ETHENE, TRICHLORO-	79-01-6	10	7,1,2,3,5,6,8	0.005	0.005	0.3	0.3	A
ETHION	00563-12-2	5	6,1,3,4	0.5	5	50	500	R
ETHOPROP	13194-48-4	1	6,4,1	0.1	1	10	100	T
ETHOPROPHOS	13194-48-4	1	4,6,1	0.1	1	10	100	M

2-ETHOXY-3,4-DIHYDRO-2-PYRAN	00103-75-3	100	6	10	100	1000	10000	E
2-ETHOXYETHANOL	00110-80-5	10	8,6,3,1,2	1	10	100	1000	N
2-ETHOXYETHYL ACETATE	00111-15-9	10	6,1	1	10	100	1000	T
ETHYL 4,4'-DICHLOROBENZILATE	00510-15-6	5	3,2,6,8	0.5	5	50	500	
ETHYL ACETATE	00141-78-6	100	1,3,5,6	10	100	1000	10000	O
ETHYL ACETOACETATE	00141-97-9	10	6	1	10	100	1000	F
ETHYL ACRYLATE	00140-88-5	50	1,3,5,8,6	5	50	500	5000	
ETHYL ALCOHOL (DEP RQ in gallons)	00064-17-5	10	1,6	1	10	100	1000	E
ETHYL ALDEHYDE	00075-07-0	50	1,3,5,6,8	5	50	500	5000	N
ETHYL BROMIDE	00074-96-4	10	6	1	10	100	1000	V
ETHYL BUTYL KETONE	00106-35-4	10	6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
ETHYL BUTYRATE	00105-54-4	10	1,6	1	10	100	1000	
ETHYL CARBAMATE	00051-79-6	10	2,3,6,8	1	10	100	1000	
ETHYL CHLORIDE	00075-00-3	10	8,1,6,3,5	1	10	100	1000	3
ETHYL CHLOROACETATE	00105-39-5	10	1,6	1	10	100	1000	1
ETHYL CHLOROFORMATE	00541-41-3	10	6,1,8	1	10	100	1000	0
ETHYL CYANIDE	00107-12-0	5	1,2,3,4,6	0.5	5	50	500	
ETHYL CYANOACETATE	00105-56-6	10	6	1	10	100	1000	C
P,P-ETHYL DDD (PERTHANE)	00072-56-0	1	6	0.1	1	10	100	M
ETHYL DICHLOROSILANE	01789-58-8	10	6,1	1	10	100	1000	R

ETHYL ETHER	00060-29-7	10	1,3,5,6	1	10	100	1000	:
ETHYL FORMATE	00109-94-4	10	1,6	1	10	100	1000	
ETHYL LACTATE	00097-64-3	10	1,6	1	10	100	1000	D
ETHYL MERCAPTAN	00075-08-1	10	1,6	1	10	100	1000	E
ETHYL METHACRYLATE	00097-63-2	50	1,2,3,6	5	50	500	5000	P
ETHYL METHANESULFONATE	00062-50-0	1	2,3,6	0.1	1	10	100	A
ETHYL METHANESULPHONATE	00062-50-0	1	6,2,3	0.1	1	10	100	R
ETHYL METHYL ETHER	00540-67-0	10	1,6	1	10	100	1000	T
ETHYL METHYL KETONE (MEK)	78-93-3	100	2,3,6,8,1	4	50	4	50	M

ETHYL METHYL KETONE PEROXIDE	01338-23-4	5	6,2,3	0.5	5	50	500	E
N-ETHYL MORPHOLINE	00100-74-3	10	6	1	10	100	1000	N
ETHYL NITRATE	00625-58-1	10	6,1	1	10	100	1000	T
ETHYL NITRITE	00109-95-5	10	1,6	1	10	100	1000	
ETHYL PARATHION	00056-38-2	5	6,1,2,3,4,8	0.5	5	50	500	O
ETHYL PHENYL DICHLOROSILANE	01125-27-5	10	1	1	10	100	1000	F
ETHYL PHOSPHORODICHLORIDATE	01498-51-7	10	1	1	10	100	1000	
ETHYL PROPIONATE	00105-37-3	10	1,6	1	10	100	1000	E
ETHYL THIOCYANATE	00542-90-5	1	4	0.1	1	10	100	N
ETHYL TRICHLOROSILANE	00115-21-9	1	1,4,6	0.1	1	10	100	V
5-ETHYL-2-METHYLPYRIDINE	00104-90-5	10	6,1	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
ETHYLALUMINUM DICHLORIDE	00563-43-9	10	6	1	10	100	1000	
ETHYLALUMINUM SESQUICHLORIDE	12075-68-2	10	6	1	10	100	1000	
ETHYLAMINE	00075-04-7	10	6,1,3	1	10	100	1000	3
ETHYLBENZENE	100-41-4	50	3,6,1,5,8	0.7	5	40	1000	1
ETHYLBENZYLANILINE	00092-59-1	50	6	5	50	500	5000	0
ETHYLBIS(2-CHLOROETHYL)AMINE	00538-07-8	1	4	0.1	1	10	100	
ETHYLBIS(2-CHLOROETHYL)AMINE (NITROGEN MUSTARD ...	00538-07-8	1	4	0.1	1	10	100	C
2-ETHYLBUTYL ACRYLATE	03953-10-4	10	6	1	10	100	1000	M
n-ETHYLCYCLOHEXYLAMINE	05459-93-8	10	6	1	10	100	1000	R

ETHYLENE	00074-85-1	1	1,6,8	0.1	1	10	100	:
ETHYLENE BIS DITHIOCARBAMATE	00142-59-6	1	7,6,1	0.1	1	10	100	
ETHYLENE CHLOROHYDRIN	00107-07-3	1	1,6,4	0.1	1	10	100	D
ETHYLENE CYANOHYDRIN	00109-78-4	10	6	1	10	100	1000	E
ETHYLENE DIBROMIDE	106-93-4	1	1,2,3,8,6	0.00002	0.002	0.1	0.1	P
ETHYLENE DICHLORIDE	107-06-2	10	1,2,3,8,6,5	0.005	0.005	0.1	0.1	A
ETHYLENE FLUOROHYDRIN	00371-62-0	1	4	0.1	1	10	100	R
ETHYLENE GLYCOL DIETHYL ETHER	00629-14-1	10	6,1	1	10	100	1000	T
ETHYLENE GLYCOL DIMETHYL ETHER	00110-71-4	10	6	1	10	100	1000	M
ETHYLENE GLYCOL DINITRATE	00628-96-6	10	6,1	1	10	100	1000	E

ETHYLENE GLYCOL ISOPROPYL ETHER	00109-59-1	10	6	1	10	100	1000	N
ETHYLENE GLYCOL MONOACRYLATE	00818-61-1	10	6	1	10	100	1000	T
ETHYLENE GLYCOL MONOBUTYL ETHER	00111-76-2	10	6	1	10	100	1000	
ETHYLENE GLYCOL MONOETHYL ETHER	00110-80-5	10	1,2,6,3,8	1	10	100	1000	O
ETHYLENE GLYCOL MONOMETHYL ETHER	00109-86-4	10	1,5,6,8	1	10	100	1000	F
ETHYLENE GLYCOL MONOMETHYL ETHER ACETATE	00110-49-6	10	1,6	1	10	100	1000	
ETHYLENE OXIDE	00075-21-8	5	1,2,3,4,6,8	0.5	5	50	500	E
ETHYLENE THIOUREA	00096-45-7	5	6,8,2,3	0.5	5	50	500	N
ETHYLENE, 1,1-DICHLORO-2,2-BIS(4-CHLOROPHENYL)-	72-55-9	1	2,3,6	0.00005	0.4	7	30	V
								I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
1,2-ETHYLENEBISDITHIOCARBAMIC ACID	00111-54-6	100	6,1,2,3	10	100	1000	10000	
ETHYLENEBISDITHIOCARBAMIC ACID, SALTS AND ESTERS	00111-54-6	100	2,3,1,6	10	100	1000	10000	
ETHYLENEDIAMINE	00107-15-3	100	1,3,6,4	10	100	1000	10000	3
ETHYLENEDIAMINE TETRAACETIC ACID (EDTA)	00060-00-4	100	3,1,6	10	100	1000	10000	1
ETHYLENIMINE	00151-56-4	1	1,2,3,8,6,4	0.1	1	10	100	0
ETHYLHEXALDEHYDE	00123-05-7	10	1,6	1	10	100	1000	
2-ETHYLHEXANAL	00123-05-7	10	6,1	1	10	100	1000	C
2-ETHYLHEXANOL	00104-76-7	10	6	1	10	100	1000	M
2-ETHYLHEXYL ACETATE	00103-09-3	10	6	1	10	100	1000	R

2-ETHYLHEXYL ACRYLATE	00103-11-7	10	6	1	10	100	1000	:
ETHYLIDENE CHLORIDE	75-34-3	50	6,1,2,3,8	0.07	2	0.4	9	
1,1-ETHYLIDENE DICHLORIDE	75-34-3	50	6,1,2,3,8	0.07	2	0.4	9	D
ETHYLIDENE DICHLORIDE	75-34-3	50	6,1,2,3,8	0.07	2	0.4	9	E
1,2-ETHYLIDENE DICHLORIDE	107-06-2	10	1,2,3,8,6,5	0.005	0.005	0.1	0.1	P
ETHYLIDENE NORBORNENE	16219-75-3	100	6	10	100	1000	10000	A
ETHYLMERCURIC PHOSPHATE	02235-25-8	5		0.5	5	50	500	R
4-ETHYLMORPHOLINE	00100-74-3	10	6	1	10	100	1000	T
p-ETHYLPHENOL	00123-07-9	100	6	10	100	1000	10000	M

ETHYLTRICHLOROSILANE	00115-21-9	1	6,1,4	0.1	1	10	100	E
ETHYNE	00074-86-2	10	7,1,6	1	10	100	1000	N
ETHYNODIOL DIACETATE	00297-76-7	1	6,7	0.1	1	10	100	T
FAMPHUR	00052-85-7	50	1,2,3,6	5	50	500	5000	
FENAMIPHOS	22224-92-6	1	6,4,1	0.1	1	10	100	O
FENITROTHION	00122-14-5	1	4,1	0.1	1	10	100	F
FENPROPATHRIN	39515-41-8	1	1	0.1	1	10	100	
FENSULFOTHION	00115-90-2	1	6,4,1	0.1	1	10	100	E
FENTHION	00055-38-9	5	6,1	0.5	5	50	500	N
FERRIC AMMONIUM CITRATE	01185-57-5	50	1,3,6	5	50	500	5000	V
FERRIC AMMONIUM OXALATE	02944-67-4	50	3,6	(See RCs of any listed constituents)				I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
FERRIC AMMONIUM OXALATE	55488-87-4	50	3,6	(See RCs of any listed constituents)				3
FERRIC CHLORIDE	07705-08-0	50	1,3,6	(See RCs of any listed constituents)				1
FERRIC FLUORIDE	07783-50-8	10	1,3,6	(See RCs of any listed constituents)				0
FERRIC NITRATE	10421-48-4	50	1,3,6	(See RCs of any listed constituents)				
FERRIC SULFATE	10028-22-5	50	1,3,6	(See RCs of any listed constituents)				
FERROUS AMMONIUM SULFATE	10045-89-3	50	1,3,6	(See RCs of any listed constituents)				C
FERROUS CHLORIDE	07758-94-3	10	1,3,6	(See RCs of any listed constituents)				M
FERROUS SULFATE	07720-78-7	50	1,3,6	(See RCs of any listed constituents)				R
FERROUS SULFATE	07782-63-0	50	3,6	(See RCs of any listed constituents)				:

FLUENETIL	04301-50-2	1	4	0.1	1	10	100	D
FLUORACETYL CHLORIDE	00359-06-8	1	4	0.1	1	10	100	E
FLUORANTHENE	206-44-0	10	2,3,7,6	0.09	0.2	1000	3000	P
FLUORENE	86-73-7	100	3,6	0.04	0.04	1000	3000	A
9H-FLUORENE	86-73-7	100	3,6,7	0.04	0.04	1000	3000	R
FLUORIC ACID	07664-39-3	10	1,2,3,4,5,6,8	(See RCs of any listed constituents)				T
FLUORINE	07782-41-4	5	4,6,1,2,3,7	(Not Applicable)				M
FLUOROACETAMIDE	00640-19-7	10	1,3,4,2,6	1	10	100	1000	E
2-FLUOROACETAMIDE	00640-19-7	10	6,1,3,2,4	1	10	100	1000	N
FLUOROACETAMIDE/1081	00640-19-7	10	6,1,2,3,4	1	10	100	1000	T

FLUOROACETIC ACID	00144-49-0	1	4	0.1	1	10	100	
FLUOROACETIC ACID, SODIUM SALT	00062-74-8	5	2,3,4,6	(See RCs of any listed constituents)				O
FLUOROCARBON 11	00075-69-4	100	6,1,2,3,8	10	100	1000	10000	F
FLUOROCARBON 12	00075-71-8	100	6,1,2,3,8	10	100	1000	10000	
FLUOROSULFONIC ACID	07789-21-1	10	1	(See RCs of any listed constituents)				E
FLUOROTRICHLOROMETHANE	00075-69-4	100	6,1,2,3,8	10	100	1000	10000	N
FLUOROURACIL	00051-21-8	1	4	0.1	1	10	100	V
FLURIDONE	59756-60-4	10	5	1	10	100	1000	I
FOLPET	00133-07-3	1	5	0.1	1	10	100	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations		
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
FONOFOS	00944-22-9	1	6,4,1	0.1	1	10	100

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations				
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)		
FORMALDEHYDE	00050-00-0	10	2,3,4,5,6,7,8,1	1	10	100	1000		
FORMALDEHYDE CYANOHYDRIN	00107-16-4	1	4	0.1	1	10	100		
FORMALIN	00050-00-0	10	1,6,2,3,4,5,8	1	10	100	1000	3	
FORMAMIDE	00075-12-7	10	6,7	1	10	100	1000	1	
FORMAMIDE, N,N-DIMETHYL-	00068-12-2	10	7,5,6	1	10	100	1000	0	
FORMETANATE	23422-53-9	1	4,1	0.1	1	10	100		
FORMIC ACID	00064-18-6	100	1,2,3,6,7,8	10	100	1000	10000	C	
FORMIC ACID, 1-METHYLETHYL ESTER	00625-55-8	10	7,6	1	10	100	1000	M	
FORMIC ACID, COBALT(2+) SALT	00544-18-3	50	7,1,3,6	(See RCs of any listed constituents)				R	

FORMIC ACID, ETHYL ESTER	00109-94-4	10	7,1,6	1	10	100	1000	:	
FORMIC ACID, METHYL ESTER	00107-31-3	10	7,1,6	1	10	100	1000		
FORMIC ACID, ZINC SALT	00557-41-5	50	7,1,3	(See RCs of any listed constituents)				D	
FORMOTHION	02540-82-1	1	4	0.1	1	10	100	E	
FORMPARANATE	17702-57-7	1	4	0.1	1	10	100	P	
FOSTHIETAN	21548-32-3	1	4	0.1	1	10	100	A	
FREON 11	00075-69-4	100	1,2,3,6,8	10	100	1000	10000	R	
FREON 12	00075-71-8	100	1,2,3,6,8	10	100	1000	10000	T	
FUBERIDAZOLE	03878-19-1	1	4	0.1	1	10	100	M	

FUEL OIL #'s 2,4,5,6 (DEP RQ in gallons)		10	(See TPH RC and RCs of other relevant constituents)						E
FULMINIC ACID, MERCURY SALT	00628-86-4	5	2,1,3	(See RCs of any listed constituents)				N	
FULMINIC ACID, MERCURY(2+) SALT	00628-86-4	5	7,1,2,3,6	(See RCs of any listed constituents)				T	
FUMARIC ACID	00110-17-8	100	1,3,6	10	100	1000	10000		
FURADAN	01563-66-2	5	6,1,3,4	0.5	5	50	500	O	
2-FURALDEHYDE	00098-01-1	100	6,1,3	10	100	1000	10000	F	
FURAN	00110-00-9	10	1,3,6,4	1	10	100	1000		
FURAN, TETRAHYDRO-	00109-99-9	50	3,1,5,6	5	50	500	5000	E	
2-FURANCARBOXALDEHYDE	00098-01-1	100	3,7,1,6	10	100	1000	10000	N	
2,5-FURANDIONE	00108-31-6	100	2,3,5,6,8	10	100	1000	10000	V	
2-FURANMETHANOL	00098-00-0	10	7,6	1	10	100	1000	I	
								R	

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
FURANMETHANOL, TETRAHYDRO-	00097-99-4	10	7,6	1	10	100	1000	
FURFURAL	00098-01-1	100	1,3,6	10	100	1000	10000	
FURFURAN	00110-00-9	10	3,1,4,6	1	10	100	1000	3
FURFURYL ALCOHOL	00098-00-0	10	6	1	10	100	1000	1
7H-FURO[3,2G][1]BENZOPYRAN-7-ONE,4-METHOXY-	00484-20-8	1	7	0.1	1	10	100	0
GALLIUM CHLORIDE	13450-90-3	1	7,4	(See RCs of any listed constituents)				
GALLIUM TRICHLORIDE	13450-90-3	1	4	(See RCs of any listed constituents)				C
GASOLINE (DEP RQ in gallons)		10		(See TPH RC and RCs of other relevant constituents)				M
D-GLUCOPYRANOSE, 2-DEOXY-2-(3-METHYL-3-NITROSOUREI..	18883-66-4	1	2,3,6	0.1	1	10	100	R

D-GLUCOSE, 2-DEOXY-2-[[(METHYLNITROSOAMINO)CARBONY..	18883-66-4	1	7,2,3,6	0.1	1	10	100	:
L-GLUTAMIC ACID, N-[4-[[(2,4-DIAMINO-6-PTERIDINYL)..	00054-62-6	1	7,4	0.1	1	10	100	
GLYCIDALDEHYDE	00765-34-4	5	6,2,3	0.5	5	50	500	D
GLYCIDYLALDEHYDE	00765-34-4	5	2,3,6	0.5	5	50	500	E
GLYCINE, N,N'-1,2-ETHANEDIYLBIS[N-(CARBOXYMETHYL..	00060-00-4	100	7,1,3,6	10	100	1000	10000	P
GLYCOL MONOETHYL ETHER	00110-80-5	10	6,1,2,3,8	1	10	100	1000	A
GRISEOFULVIN	00126-07-8	1	6,7	0.1	1	10	100	R
GUANIDINE, N-METHYL-N'-NITRO-N-NITROSO-	00070-25-7	5	7,1,2,3,6,3	0.5	5	50	500	T
GUANIDINE, N-NITROSO-N-METHYL-N'-NITRO-	00070-25-7	5	2,3,1,6,3	0.5	5	50	500	M

GUTHION	00086-50-0	1	1,3,6,4	0.1	1	10	100	E
HALOWAX 1014	01335-87-1	1	6,8	0.1	1	10	100	N
gamma-HCH	58-89-9	1	3,1,4,5,6,8	0.0002	0.004	0.003	0.5	T
alpha-HCH	00319-84-6	5	6,3	0.5	5	50	500	
beta-HCH	00319-85-7	1	6,3	0.1	1	10	100	O
HEPTACHLOR	76-44-8	1	1,2,3,5,6,8	0.0004	0.001	0.3	2	F
HEPTACHLOR EPOXIDE	1024-57-3	1	3,2,6	0.0002	0.002	0.2	1	
HEPTACHLOR EPOXIDE (ALPHA, BETA,AND GAMMA ISOMERS)	1024-57-3	1	3,2,6	0.0002	0.002	0.2	1	E
HEPTANE (N-HEPTANE)	00142-82-5	10	1,7,6	1	10	100	1000	N
3-HEPTANONE	00106-35-4	10	6	1	10	100	1000	V
2-HEPTANONE	00110-43-0	10	7,1,6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
4-HEPTANONE, 2,6-DIMETHYL-	00108-83-8	10	7,1,6	1	10	100	1000	
2,2',4,4',5,5'-HEXABROMO-1,1'BIPHENYL	59080-40-9	1	6,7	0.1	1	10	100	
HEXABROMOBIPHENYL	36355-01-8	1	6,7	0.1	1	10	100	3
HEXACHLORO-1,3-BUTADIENE	87-68-3	1	2,3,6,8,1	0.0006	0.05	30	100	1
1,2,3,4,10,10-HEXACHLORO-1,4,4A,5,8,8A-HEXAHYDRO-1,4:5,8-ENDO,..	309-00-2	1	1,2,3,8,6,4	0.0005	0.002	0.09	0.5	0
1,2,3,4,10,10-HEXACHLORO-1,4,4A,5,8,8A-HEXAHYDRO-1,4:5.8-ENDO,..	00465-73-6	1	2,3,1,4	0.1	1	10	100	
1,2,3,4,10,10-HEXACHLORO-6,7-EPOXY-1,4,4A,5,6,7,8,8A-OCTAHYDRO..	60-57-1	1	2,3,6,1	0.0001	0.0005	0.09	0.6	C
HEXACHLOROBENZENE	118-74-1	5	2,3,8,6	0.001	0.001	0.7	0.9	M
HEXACHLOROBUTADIENE	00087-68-3	1	2,3,6,8,1	0.0006	0.05	30	100	R

alpha-HEXACHLOROCYCLOHEXANE	00319-84-6	5	6,3	0.5	5	50	500	:
beta-HEXACHLOROCYCLOHEXANE	00319-85-7	1	6,3	0.1	1	10	100	
HEXACHLOROCYCLOHEXANE (GAMMA ISOMER)	00058-89-9	1	3,1,4,5,6,8	0.0002	0.004	0.003	0.5	D
HEXACHLOROCYCLOPENTADIENE	00077-47-4	5	1,2,3,4,5,6,8	0.5	5	50	500	E
HEXACHLOROETHANE	00067-72-1	10	1,2,3,5,6,8	0.008	0.1	0.7	3	P
HEXACHLOROHEXAHYDRO-ENDO,ENDO-DIMETHANONAPHTHALENE	00465-73-6	1	1,2,3,4	0.1	1	10	100	A
HEXACHLORONAPHTHALENE	01335-87-1	1	6,8	0.1	1	10	100	R
HEXACHLOROPHENE	00070-30-4	10	2,3,5,6,8	1	10	100	1000	T
HEXACHLOROPROPENE	01888-71-7	50	1,2,3,6	5	50	500	5000	M

HEXADECYLTRICHLOROSILANE	05894-60-0	50	6,1	5	50	500	5000	E
1,4-HEXADIENE	00592-45-0	10	6,7	1	10	100	1000	N
HEXAETHYL TETRAPHOSPHATE	00757-58-4	10	1,2,3,6	1	10	100	1000	T
HEXAFLUOROACETONE	00684-16-2	10	6	1	10	100	1000	
HEXAFLUOROPHOSPHORIC ACID	16940-81-1	10	1	(See RCs of any listed constituents)				O
HEXAFLUOROPROPYLENE	00116-14-3	10	1,6	1	10	100	1000	F
HEXAMETHYLENEDIAMINE	00124-09-4	10	1,6	1	10	100	1000	
HEXAMETHYLENEDIAMINE, N,N'-DIBUTYL-	04835-11-4	1	4	0.1	1	10	100	E
HEXAMETHYLENEIMINE	00111-49-9	10	1,6	1	10	100	1000	N
HEXANAL	00066-25-1	10	6,7	1	10	100	1000	V
HEXANAL, 2-ETHYL-	00123-05-7	10	7,1,6	1	10	100	1000	I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
HEXANE	00110-54-3	10	1,6,5	1	10	100	1000	
HEXANE (N-HEXANE)	00110-54-3	10	6,1,5	1	10	100	1000	
1,6-HEXANEDIAMINE, N,N'-DIBUTYL-	04835-11-4	1	7,4	0.1	1	10	100	3
HEXANEDIOIC ACID	00124-04-9	100	1,3,6	10	100	1000	10000	1
1-HEXANOL, 2-ETHYL-	00104-76-7	10	7,6	1	10	100	1000	0
2-HEXANONE	00591-78-6	10	6,5,7	1	10	100	1000	
2-HEXANONE, 5-METHYL-	00110-12-3	10	7,6	1	10	100	1000	C
HEXAZINONE	51235-04-2	100	5	10	100	1000	10000	M
1-HEXENE	00592-41-6	10	6,7	1	10	100	1000	R
HEXONE	108-10-1	100	1,3,8,6	0.35	50	0.4	50	:

sec-HEXYL ACETATE	00142-92-7	100	6	10	100	1000	10000	
HEXYLENE GLYCOL	00107-41-5	10	6	1	10	100	1000	D
HEXYLTRICHLOROSILANE	00928-65-4	10	1	1	10	100	1000	E
HMX	02691-41-0		0.2	50	2	100		P
HYDRAULIC OIL (petroleum based or unknown) (DEP RQ IN GALLONS)		10	5	(See TPH RC and RCs of other listed constituents)				A
HYDRAULIC OIL (vegetable oil) (DEP RQ in gallons)		55	5	(Not Applicable)				R
HYDRAZINE	00302-01-2	1	2,3,5,7,8,6,4,1	0.1	1	10	100	T
HYDRAZINE 1,2-DIETHYL-	01615-80-1	5	2,3,7,6	0.5	5	50	500	M
HYDRAZINE, 1,1-DIMETHYL-	00057-14-7	5	2,3,7,1,4,6,8	0.5	5	50	500	E
HYDRAZINE, 1,2-DIMETHYL-	00540-73-8	1	3,2,7,6	0.1	1	10	100	N
HYDRAZINE, 1,2-DIPHENYL-	00122-66-7	5	2,3,6,8	0.5	5	50	500	T

HYDRAZINE, ANHYDROUS	00302-01-2	1	1,2,3,4,5,6,8	0.1	1	10	100	
HYDRAZINE, METHYL-	00060-34-4	5	2,3,7,1,4,6,8	0.5	5	50	500	O
HYDRAZINE, PHENYL-	00100-63-0	50	7,6	5	50	500	5000	F
HYDRAZINE, PHENYL-, MONOHYDROCHLORIDE	00059-88-1	1	7,4	0.1	1	10	100	
HYDRAZINECARBOTHIOAMIDE	00079-19-6	10	2,3,7,1,4	1	10	100	1000	E
HYDRAZINECARBOTHIOAMIDE, 2-(1-METHYLETHYLIDENE)-	01752-30-3	1	7,4	0.1	1	10	100	N
HYDRAZINECARBOXAMIDE, MONOHYDROCHLORIDE	00563-41-7	1	7,4	0.1	1	10	100	V
HYDRAZINE SULFATE	10034-93-2	10	6,8	(See RCs of any listed constituents)				I
HYDRAZOBENZENE	00122-66-7	5	8,6,2,3	0.5	5	50	500	R

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HYDRIODIC ACID	10034-85-2	10	6,7	(See RCs of any listed constituents)				
HYDROBROMIC ACID	10035-10-6	10	6	(See RCs of any listed constituents)				
HYDROCHLORIC ACID	07647-01-0	100	1,3,7,8,4,5,6	(See RCs of any listed constituents)				3
HYDROCYANIC ACID	00074-90-8	5	1,2,3,6,7,4,8	0.5	5	50	500	1
HYDROFLUORIC ACID	07664-39-3	10	6,1,2,3,7,4,5,8	(See RCs of any listed constituents)				0
HYDROFLUOROSILICIC ACID	16961-83-4	10	1	(See RCs of any listed constituents)				
HYDROGEN	01333-74-0	10	6,1	(Not Applicable)				C
HYDROGEN CHLORIDE	07647-01-0	100	1,4,5,6,3,8	(See RCs of any listed constituents)				M
HYDROGEN CYANIDE	00074-90-8	5	2,3,6,8,1,4	0.5	5	50	500	R

HYDROGEN FLUORIDE	07664-39-3	10	4,6,1,2,3,5,8	(See RCs of any listed constituents)				:
HYDROGEN PEROXIDE	07722-84-1	1	6,1,4	(See RCs of any listed constituents)				
HYDROGEN PEROXIDE (H2O2)	07722-84-1	1	7,1,4,6	(See RCs of any listed constituents)				D
HYDROGEN PHOSPHIDE	07803-51-2	10	2,3,1,4,6	(See RCs of any listed constituents)				E
HYDROGEN SELENIDE	07783-07-5	1	4,6,1	(See RCs of any listed constituents)				P
HYDROGEN SELENIDE (H2Se)	07783-07-5	1	7,1,4,6	(See RCs of any listed constituents)				A
HYDROGEN SULFATE	07664-93-9	50	1,3,4,5,6,8	(See RCs of any listed constituents)				R
HYDROGEN SULFIDE	07783-06-4	10	4,6,1,2,3,5,8	(See RCs of any listed constituents)				T
HYDROGEN SULFIDE (H2S)	07783-06-4	10	7,1,2,3,4,5,6,8	(See RCs of any listed constituents)				M

HYDROPEROXIDE, 1-METHYL-1-PHENYLETHYL-	00080-15-9	5	3,7,1,6,8	0.5	5	50	500	E
HYDROQUINONE	00123-31-9	1	8,6,4	0.1	1	10	100	N
HYDROSULFURIC ACID	07783-06-4	10	3,1,2,4,5,6,8	(See RCs of any listed constituents)				T
2-HYDROXY-2-METHYL-PROPANENITRILE	00075-86-5	5	6,1,2,3,4	0.5	5	50	500	
HYDROXYDIMETHYLARSINE OXIDE	00075-60-5	1		0.1	1	10	100	O
2-HYDROXYETHYL ACRYLATE	00818-61-1	10	6	1	10	100	1000	F
HYDROXYLAMINE	07803-49-8	10	6,7	1	10	100	1000	
3-HYDROXYPROPANENITRILE	00109-78-4	10	6	1	10	100	1000	E
HYPOCHLORITE SOLUTION	07681-52-9	10	1,3	(See RCs of any listed constituents)				N
HYPOCHLOROUS ACID, CALCIUM SALT	07778-54-3	5	7,1,3,6	(See RCs of any listed constituents)				V
HYPOCHLOROUS ACID, SODIUM SALT	07681-52-9	10	7,1,3	(See RCs of any listed constituents)				I
								R

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HYPOCHLOROUS ACID, SODIUM SALT, PENTAHYDRATE	10022-70-5	10	7,3	(See RCs of any listed constituents)				
2-IMIDAZOLIDINETHIONE	00096-45-7	5	2,3,7,6,8	0.5	5	50	500	
IMIDOLE	00109-97-7	100	6	10	100	1000	10000	3
1H-INDENE-1,3(2H)-DIONE,2-[(4-CHLOROPHENYL)PHENYLAC..	03691-35-8	1	7,4,6	0.1	1	10	100	1
INDENO(1,2,3-CD)PYRENE	193-39-5	10	2,3,7,6	0.0005	0.1	20	300	0
1H-INDOLE-3-ACETIC ACID, 1-(4-CHLOROBENZOYL)-5-METH..	00053-86-1	10	7	1	10	100	1000	
INDOMETHACIN	00053-86-1	10		1	10	100	1000	
IODINE	07553-56-2	10	6,7	(Not Applicable)				C
IODINE CYANIDE	00506-78-5	1	7,4	(See RCs of any listed constituents)				M

IODINE MONOCHLORIDE	07790-99-0	10	1	(See RCs of any listed constituents)				R
IODOMETHANE	00074-88-4	10	2,3,6,8	1	10	100	1000	:
IOXYNIL	01689-83-4	10	1	1	10	100	1000	D
IRON CARBONYL	13463-40-6	1	6,4	(See RCs of any listed constituents)				E
IRON CARBONYL, (TB-5-11)-	13463-40-6	1	4,6	(See RCs of any listed constituents)				P
IRON CHLORIDE	07705-08-0	50	1,3,6	(See RCs of any listed constituents)				A
IRON CHLORIDE (FeC12)	07758-94-3	10	7,1,3,6	(See RCs of any listed constituents)				R
IRON CHLORIDE (FeC13)	07705-08-0	50	7,1,3,6	(See RCs of any listed constituents)				T
IRON FLUORIDE (FeF3)	07783-50-8	10	7,1,3,6	(See RCs of any listed constituents)				M

IRON PENTACARBONYL	13463-40-6	1	4,6	(See RCs of any listed constituents)				E
IRON SESQUICHLORIDE	07705-08-0	50	1,3,6	(See RCs of any listed constituents)				N
ISOAMYL ACETATE	00123-92-2	50	5,6,3	5	50	500	5000	T
ISOBENZAN	00297-78-9	1	4	0.1	1	10	100	
1,3-ISOBENZOFURANDIONE	00085-44-9	100	7,1,2,3,5,6,8	10	100	1000	10000	O
ISOBUTANE	00075-28-5	10	1,6	1	10	100	1000	F
ISOBUTANOL	00078-83-1	100	1,6,2,3,5	10	100	1000	10000	
1-ISOBUTENYL METHYL KETONE	00141-79-7	10		1	10	100	1000	E
ISOBUTYL ACETATE	00110-19-0	100	1,5,6,3	10	100	1000	10000	N
ISOBUTYL ACRYLATE	00106-63-8	10	6	1	10	100	1000	V
ISOBUTYL ALCOHOL	00078-83-1	100	1,2,3,5,6	10	100	1000	10000	I
								R

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ISOBUTYL METHYL KETONE	108-10-1	100	1,3,8,6	0.35	50	0.4	50	
ISOBUTYLAMINE	00078-81-9	50	1,6,3	5	50	500	5000	
ISOBUTYLENE	00115-11-7	10	1,6	1	10	100	1000	3
ISOBUTYRALDEHYDE	00078-84-2	10	6,8	1	10	100	1000	1
ISOBUTYRIC ACID	00079-31-2	100	1,3,6	10	100	1000	10000	0
ISOBUTYRIC ANHYDRIDE	00097-72-3	100	1,6	10	100	1000	10000	
ISOBUTYRONITRILE	00078-82-0	1	4,6	0.1	1	10	100	C
ISOCYANIC ACID, 3,4-DICHLORPHENYL ESTER	00102-36-3	1	4	0.1	1	10	100	M
ISOCYANIC ACID, METHYL ESTER	00624-83-9	5	7,1,2,3,4,6,8	0.5	5	50	500	R

ISODECYL DIPHENYL PHOSPHATE	29761-21-5	50	1	5	50	500	5000	:
ISODRIN	00465-73-6	1	1,4,2,3	0.1	1	10	100	
ISOFLUORPHATE	00055-91-4	10	4,1,2,3	1	10	100	1000	D
ISOHEXANE	00107-83-5	10	6,1	1	10	100	1000	E
1H-ISOINDOLE-1,3(2H)-DIONE,3A,4,7,7A-TETRAHYDRO-2-...	00133-06-2	5	1,3,6,8	0.5	5	50	500	P
ISOOCTANE	00540-84-1	10	1,6	1	10	100	1000	A
ISOPENTANE	00078-78-4	10	1,6	1	10	100	1000	R
ISOPENTANOIC ACID	00503-74-2	10	1,6	1	10	100	1000	T
ISOPHORONE	00078-59-1	10	1,3,6	1	10	100	1000	M

ISOPHORONE DIISOCYANATE	04098-71-9	1	6,4	0.1	1	10	100	E
ISOPRENE	00078-79-5	10	1,3,6	1	10	100	1000	N
ISOPROCARB	02631-40-5	1	1	0.1	1	10	100	T
ISOPROPANOLAMINE DODECYLBENZENESULFONATE	42504-46-1	50	1,3,6	5	50	500	5000	
ISOPROPENYL ACETATE	00108-22-5	10	6	1	10	100	1000	O
ISOPROPOXYETHANOL	00109-59-1	10	6	1	10	100	1000	F
ISOPROPYL ACETATE	00108-21-4	10	1,5,6	1	10	100	1000	
ISOPROPYL BENZENE	00098-82-8	100	1,6,3,8	10	100	1000	10000	E
ISOPROPYL CHLORIDE	00075-29-6	10	6,1	1	10	100	1000	N
ISOPROPYL CHLOROFORMATE	00108-23-6	1	4	0.1	1	10	100	V
ISOPROPYL ETHER	00108-20-3	10	6,1	1	10	100	1000	I
								R

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ISOPROPYL FORMATE	00625-55-8	10	6	1	10	100	1000	
ISOPROPYL MERCAPTAN	00075-33-2	10	1,6	1	10	100	1000	
ISOPROPYL PERCARBONATE	00105-64-6	10	1,6	1	10	100	1000	3
ISOPROPYL PEROXYDICARBONATE	00105-64-6	10	1,6	1	10	100	1000	1
ISOPROPYLAMINE	00075-31-0	10	1,6	1	10	100	1000	0
ISOPROPYLMETHYLPYRAZOLYL DIMETHYLCARBAMATE	00119-38-0	1	4	0.1	1	10	100	
ISOSAFROLE	00120-58-1	10	2,3,6,8	1	10	100	1000	C
3(2H)-ISOXAZOLONE, 5-(AMINOMETHYL)-	02763-96-4	50	2,3,7,1,4	5	50	500	5000	M
JET FUEL (DEP RQ in gallons)		10	5	(See TPH RC and RCs of other relevant constituents)				R

KELTHANE	00115-32-2	5	1,3,6,8	0.5	5	50	500	:
KEPONE	00143-50-0	1	1,2,3,6	0.1	1	10	100	
KEROSENE (DEP RQ in gallons)	08008-20-6	10	1,6	(See TPH RC and RCs of other relevant constituents)				D
LACTONITRILE	00078-97-7	1	4,6	0.1	1	10	100	E
LANNATE	16752-77-5	10	6,1,2,3,4	1	10	100	1000	P
LASIOCARPINE	00303-34-4	5	2,3,6	0.5	5	50	500	A
LEAD	7439-92-1	5	3,5,7,2,6,8	0.01	0.01	200	600	R
LEAD ACETATE	00301-04-2	5	1,2,3,6	(See RCs of any listed constituents)				T
LEAD ARSENATE	07645-25-2	1	3,6	(See RCs of any listed constituents)				M

LEAD ARSENATE	07784-40-9	1	1,3	(See RCs of any listed constituents)				E
LEAD ARSENATE	10102-48-4	1	6,3	(See RCs of any listed constituents)				N
LEAD CHLORIDE	07758-95-4	5	1,3	(See RCs of any listed constituents)				T
LEAD CHLORIDE (PbC12)	07758-95-4	5	7,1,3	(See RCs of any listed constituents)				
LEAD COMPOUNDS, NOS		1	3	(See RCs of any listed constituents)				O
LEAD FLUOBORATE	13814-96-5	5	1,3	(See RCs of any listed constituents)				F
LEAD FLUORIDE	07783-46-2	5	1,3	(See RCs of any listed constituents)				
LEAD FLUORIDE (PbF2)	07783-46-2	5	7,1,3	(See RCs of any listed constituents)				E
LEAD IODIDE	10101-63-0	5	1,3	(See RCs of any listed constituents)				N
LEAD NITRATE	10099-74-8	5	6,1,3	(See RCs of any listed constituents)				V
								I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations				
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
LEAD PHOSPHATE	07446-27-7	5	6,2,3	(See RCs of any listed constituents)				
LEAD STEARATE	01072-35-1	5	7,1,3,6	(See RCs of any listed constituents)				
LEAD STEARATE	07428-48-0	5	7,1,3,6	(See RCs of any listed constituents)				3
LEAD STEARATE	52652-59-2	5	3,6	(See RCs of any listed constituents)				1
LEAD STEARATE	56189-09-4	5	3,6	(See RCs of any listed constituents)				0
LEAD SUBACETATE	01335-32-6	5	6,2,3,5	0.5	5	50	500	
LEAD SULFATE	07446-14-2	5	7,1,3	(See RCs of any listed constituents)				C
LEAD SULFATE	15739-80-7	5	1,3,6	(See RCs of any listed constituents)				M
LEAD SULFIDE	01314-87-0	5	1,3	(See RCs of any listed constituents)				R

LEAD THIOCYANATE	00592-87-0	5	7,1,3,6	(See RCs of any listed constituents)				:
LEAD, BIS(ACETATO-O) TETRAHYDROXYTRI-	01335-32-6	5	2,3,5,6	0.5	5	50	500	
LEAD, BIS(OCTADECANOATO)DIOXODI-	52652-59-2	5	7,3,6	(See RCs of any listed constituents)				D
LEAD, BIS(OCTADECANOATO)DIOXODI-	56189-09-4	5	7,3,6	(See RCs of any listed constituents)				E
LEPTOPHOS	21609-90-5	1	4	0.1	1	10	100	P
LEWISITE	00541-25-3	1	4	0.1	1	10	100	A
LINDANE	58-89-9	1	3,1,4,5,6,8	0.0002	0.004	0.003	0.5	R
LINURON	00330-55-2	50	5	5	50	500	5000	T
LIQUEFIED PETROLEUM GAS	00074-98-6	10	1,6	1	10	100	1000	M
LIQUEFIED PETROLEUM GAS	00075-28-5	10	1,6	1	10	100	1000	E

LIQUEFIED PETROLEUM GAS	00106-97-8	10	1,6	1	10	100	1000	N
LIQUEFIED PETROLEUM GAS	00115-07-1	10	1,6,8	1	10	100	1000	T
LIQUEFIED PETROLEUM GAS	00115-11-7	10	1,6	1	10	100	1000	
LITHIUM	07439-93-2	10	6,7	1	10	100	1000	O
LITHIUM AMIDE	07782-89-0	10	1	(See RCs of any listed constituents)				F
LITHIUM CHROMATE	14307-35-8	5	1,3,6	(See RCs of any listed constituents)				
LITHIUM HYDRIDE	07580-67-8	1	6,1,4	(See RCs of any listed constituents)				E
LITHIUM HYDRIDE (LiH)	07580-67-8	1	7,1,4,6	(See RCs of any listed constituents)				N
LITHIUM TETRAHYDROALUMINATE	16853-85-3	10	6	(See RCs of any listed constituents)				V
LUBRICATING OIL (DEP RQ in gallons)		10	5	(See TPH RC and RCs of other relevant constituents)				I
								R

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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
LYE	01310-73-2	50	1,3,6,8	(See RCs of any listed constituents)				
MCPA	00094-74-6	10	5	1	10	100	1000	
MCPB	00094-81-5	1	5	0.1	1	10	100	3
MAGNESIUM	07439-95-4	10	6	(Not Applicable)				1
MALATHION	00121-75-5	10	1,3,6	1	10	100	1000	0
MALEIC ACID	00110-16-7	100	1,3,6	10	100	1000	10000	
MALEIC ANHYDRIDE	00108-31-6	100	2,3,5,8,6	10	100	1000	10000	C
MALEIC HYDRAZIDE	00123-33-1	100	1,2,3,6	10	100	1000	10000	M
MALONONITRILE	00109-77-3	50	1,2,3,4,8	5	50	500	5000	R

MANEB	12427-38-2	5	8,6,1	0.5	5	50	500	:
MANGANESE, TRICARBONYL METHYLCYCLOPENTADIENYL	12108-13-3	1	4,6	0.1	1	10	100	
MANGANESE, TRICARBONYL[(1,2,3,4,5-.ETA.)-1-METH...	12108-13-3	1	4,6	0.1	1	10	100	D
MARLATE	72-43-5	1	1,2,3,6,8	0.01	0.01	300	400	E
MARSH GAS	00074-82-8	10	6,1	1	10	100	1000	P
MATTING ACID	07664-93-9	50	1,3,4,5,6,8	(See RCs of any listed constituents)				A
MECHLORETHAMINE	00051-75-2	1	4,6,8	0.1	1	10	100	R
MEDROXYPROGESTERONE ACETATE	00071-58-9	1	6,7	0.1	1	10	100	T
MEGESTROL ACETATE	00595-33-5	1	6,7	0.1	1	10	100	M
MELPHALAN	00148-82-3	1	2,3,6	0.1	1	10	100	E
MEPHOSFOLAN	00950-10-7	1	4,1	0.1	1	10	100	N

MERCAPTOACETIC ACID	00068-11-1	100	6	10	100	1000	10000	T
MERCAPTODIMETHUR	02032-65-7	5	1,3,4,6	0.5	5	50	500	
2-MERCAPTOETHANOL	00060-24-2	100	6	10	100	1000	10000	O
MERCURATE(2-), ETHYL[PHOSPHATO(3-)-O]-, DIHYDROGEN	02235-25-8	5	7	0.5	5	50	500	F
MERCURIC ACETATE	01600-27-7	1	1,4	(See RCs of any listed constituents)				
MERCURIC CHLORIDE	07487-94-7	1	1,4	(See RCs of any listed constituents)				E
MERCURIC CYANIDE	00592-04-1	1	6,1,3	(See RCs of any listed constituents)				N
MERCURIC NITRATE	10045-94-0	5	1,3,6	(See RCs of any listed constituents)				V
MERCURIC OXIDE	21908-53-2	1	4,1	(See RCs of any listed constituents)				I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations				
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
MERCURIC POTASSIUM CYANIDE	00591-89-9	10	1	1	10	100	1000	
MERCURIC SULFATE	07783-35-9	5	1,3,6	(See RCs of any listed constituents)				
MERCURIC SULFOCYANATE	00592-85-8	5	1,3	(See RCs of any listed constituents)				3
MERCURIC THIOCYANATE	00592-85-8	5	1,3,6	(See RCs of any listed constituents)				1
MERCUROUS NITRATE	07782-86-7	5	3,6	(See RCs of any listed constituents)				0
MERCUROUS NITRATE	10415-75-5	5	1,3,6	(See RCs of any listed constituents)				
MERCURY	7439-97-6	1	6,1,3,7,2,8	0.002	0.02	20	40	C
MERCURY CHLORIDE (HgC12)	07487-94-7	1	7,1,4	(See RCs of any listed constituents)				M
MERCURY COMPOUNDS, NOS		1	3	(See RCs of any listed constituents)				R

MERCURY CYANIDE (HG(CN)2)	00592-04-1	1	7,1,3,6	(See RCs of any listed constituents)				:
MERCURY FULMINATE	00628-86-4	5	1,2,3,6	(See RCs of any listed constituents)				
MERCURY OXIDE	21908-53-2	1	7,1,4	(See RCs of any listed constituents)				D
MERCURY, (ACETATO-O)(2-METHOXYETHYL)-	00151-38-2	1	7,4	0.1	1	10	100	E
MERCURY, (ACETATO-O)PHENYL-	00062-38-4	10	3,7,2,4,6,1	1	10	100	1000	P
MERCURY, (CYANOGUANIDINATO-N')METHYL-	00502-39-6	1	7,4	0.1	1	10	100	A
MERCURY, ACETATOPHENYL-	00062-38-4	10	2,3,4,6,1	1	10	100	1000	R
MERPHOS	00150-50-5	10	5	1	10	100	1000	T
MERPHOS OXIDE	00078-48-8	5	5	0.5	5	50	500	M

MESITYLENE	00108-67-8	1	6	0.1	1	10	100	E
MESUROL	02032-65-7	5	3,1,4,6	0.5	5	50	500	N
METAM SODIUM	00137-42-8	1	1	0.1	1	10	100	T
METAPHOSPHORIC ACID (H3P3O9),TRISODIUM SALT	07785-84-4	100	7,3,6	(See RCs of any listed constituents)				
METAPHOSPHORIC ACID (H6P6O18), HEXASODIUM SALT	10124-56-8	100	7,3,6	(See RCs of any listed constituents)				O
METAPHOSPHORIC ACID,TRISODIUM SALT	07785-84-4	100	6	(See RCs of any listed constituents)				F
METHACROLEIN DIACETATE	10476-95-6	1	4	0.1	1	10	100	
METHACRYLIC ACID	00079-41-4	10	6	1	10	100	1000	E
METHACRYLIC ANHYDRIDE	00760-93-0	1	4	0.1	1	10	100	N
METHACRYLONITRILE	00126-98-7	50	1,2,3,4,6,8	5	50	500	5000	V
METHACRYLOYL CHLORIDE	00920-46-7	1	4	0.1	1	10	100	I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
METHACRYLOYLOXYETHYL ISOCYANATE	30674-80-7	1	4	0.1	1	10	100	
METHALLYL CHLORIDE	00563-47-3	10	6	1	10	100	1000	
METHAMIDOPHOS	10265-92-6	1	4,6,1	0.1	1	10	100	3
METHANAMINE, N-METHYL-	00124-40-3	50	3,1,6	5	50	500	5000	1
METHANAMINE, N-METHYL-N-NITROSO-	00062-75-9	5	7,2,3,4,6,8	0.5	5	50	500	0
METHANE	00074-82-8	10	1,6,7	1	10	100	1000	
METHANE, BROMO-	74-83-9	50	2,8,1,3,4,5,6	0.007	0.007	0.5	0.5	C
METHANE, BROMODICHLORO-	75-27-4	100	6	0.003	0.006	0.1	0.1	M
METHANE, CHLORO-	00074-87-3	10	3,7,1,2,6,8	1	10	100	1000	R

METHANE, CHLOROMETHOXY-	00107-30-2	5	2,3,1,4,6,8	0.5	5	50	500	:
METHANE, DIBROMO-	00074-95-3	50	3,7,1,2,8,6	5	50	500	5000	
METHANE, DIBROMOCHLORO-	124-48-1	10	1,3	0.002	0.02	0.005	0.03	D
METHANE, DICHLORO-	75-09-2	50	3,6,7,1,2,5,8	0.005	2	0.1	3	E
METHANE, DICHLORODIFLUORO-	00075-71-8	100	2,3,7,1,6,8	10	100	1000	10000	P
METHANE, DIMETHOXY-	00109-87-5	10	7,1,6	1	10	100	1000	A
METHANE, IODO-	00074-88-4	10	3,7,2,6,8	1	10	100	1000	R
METHANE, ISOCYANATE-	00624-83-9	5	7,1,2,3,4,6,8	0.5	5	50	500	T
METHANE, ISOCYNATO-	00624-83-9	5	7,1,2,3,4,6,8	0.5	5	50	500	M

METHANE, ISOTHIOCYANATO-	00556-61-6	1	7,4	0.1	1	10	100	E
METHANE, NITRO-	00075-52-5	10	7,1,6	1	10	100	1000	N
METHANE, OXYBIS-	00115-10-6	10	7,1,6	1	10	100	1000	T
METHANE, OXYBIS[CHLORO-	00542-88-1	5	2,3,7,4,6,8	0.5	5	50	500	
METHANE, TETRACHLORO-	56-23-5	5	2,3,5,6,8,1	0.002	0.002	5	5	O
METHANE, TETRANITRO-	00509-14-8	5	2,3,7,1,4,6	0.5	5	50	500	F
METHANE, THIOBIS-	00075-18-3	10	7,1,6	1	10	100	1000	
METHANE, TRIBROMO-	75-25-2	10	1,2,3,6,8	0.004	0.7	0.1	1	E
METHANE, TRICHLORO-	67-66-3	5	1,2,3,5,6,8,4	0.05	0.05	0.2	0.2	N
METHANE, TRICHLOROFLUORO-	00075-69-4	100	2,7,3,1,6,8	10	100	1000	10000	V
METHANESULFENYL CHLORIDE, TRICHLORO-	00594-42-3	10	7,3,1,2,4,6	1	10	100	1000	I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
METHANESULFONIC ACID, ETHYL ESTER	00062-50-0	1	2,3,7,6	0.1	1	10	100	
METHANESULFONYL FLUORIDE	00558-25-8	1	7,4	0.1	1	10	100	
METHANETHIOL	00074-93-1	10	2,3,6,7,1,4,8	1	10	100	1000	3
METHANETHIOL, TRICHLORO-	00594-42-3	10	2,1,3,4,6	1	10	100	1000	1
METHANIMIDAMIDE, N,N-DIMETHYL-N'-[2-METHYL-4-[(..	17702-57-7	1	7,4	0.1	1	10	100	0
METHANIMIDAMIDE, N,N-DIMETHYL-N'-[3-[(METHYLAMI..	23422-53-9	1	7,4,1	0.1	1	10	100	
4,7-METHANO-1H-INDENE, 1,2,4,5,6,7,8,8-OCTACHLORO-2,3,	57-74-9	1	3,4,5,8,1,2,6	0.002	0.002	0.7	30	C
4,7-METHANO-1H-INDENE, 1,2,4,5,6,7,8,8-OCTACHLORO-2,3,	12789-03-6	1	3,4,5,8,1,2,6	0.002	0.002	6	30	M
4,7-METHANO-1H-INDENE, 1,4,5,6,7,8,8-HEPTACHLORO-2,3..	1024-57-3	1	3,2,6	0.0002	0.002	0.2	1	R
4,7-METHANO-1H-INDENE, 3A,4,7,7A-TETRAHYDRO-	00077-73-6	10	7,6	1	10	100	1000	:

4,7-METHANO-1H-INDENE,1,4,5,6,7,8,8-HEPTACHLORO-3A,4..	76-44-8	1	1,2,3,5,6,7,8	0.0004	0.001	0.3	2	
4,7-METHANO-1H-ISOINDOLE-1,3(2H)-DIONE, 3A,4,7,7A-TE..	00991-42-4	1	7,4	0.1	1	10	100	D
6,9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,10-...	01031-07-8	1	1,3,6	(See RCs of any listed constituents)				E
6,9-METHANO-2,4,3-BENZODIOXATHIEPIN, 6,7,8,9,10,10-H..	33213-65-9	1	1,2,3,6,4	0.002	0.002	0.5	1	P
6,9-METHANO-2,4,3-BENZODIOXATHIEPIN,6,7,8,9,10,10-H...	115-29-7	1	1,2,3,6,4	0.002	0.002	0.6	1	A
2,5-METHANO-2H-INDEO(1,2-B)OXIRENE,2,3,4,5,6,7,8-HE...	1024-57-3	1	3,2,6	0.0002	0.002	0.2	1	R
3,6-METHANO-8H-1,5,7-TRIOXACYCLOPENTA[IJ]CYCLOPROP[...	00124-87-8	1	7,4	0.1	1	10	100	T
METHANOIC ACID	00064-18-6	100	2,3,1,6,8	10	100	1000	10000	M
4,7-METHANOINDAN, 1,2,4,5,6,7,8,8-OCTACHLORO-3A,4,7,..	57-74-9	1	3,4,5,8,1,2,6	0.002	0.002	0.7	30	E
4,7-METHANOINDAN, 1,2,4,5,6,7,8,8-OCTACHLORO-3A,4,7,..	12789-03-6	1	3,4,5,8,1,2,6	0.002	0.002	6	30	N

4,7-METHANOISOBENZOFURAN, 1,3,4,5,6,7,8,8-OCTACH..	00297-78-9	1	7,4	0.1	1	10	100	T
METHANOL	00067-56-1	100	1,3,6,7,8	10	100	1000	10000	
METHANOL, SODIUM SALT	00124-41-4	50	1,3	(See RCs of any listed constituents)				O
METHAPYRILENE	00091-80-5	100	2,3,6	10	100	1000	10000	F
1,3,4-METHENO-1H-CYCLOBUTA[CD]PENTALENE, 1,1A,2,2,3,3A..	02385-85-5	1	7,5,6,1	0.1	1	10	100	
1,3,4-METHENO-2H-CYCLOBUTA[CD]PENTALEN-2-ONE, 1,1A,3,3A..	00143-50-0	1	7,1,2,3,6	0.1	1	10	100	E
1,2,4-METHENOCYCLOPENTA[CD]PENTALENE-5-CARBOXALDEHD..	07421-93-4	1	7,1,3,6	0.1	1	10	100	N
METHIDATHION	00950-37-8	1	6,4,1	0.1	1	10	100	V
METHIOCARB	02032-65-7	5	3,4,1,6	0.5	5	50	500	I
METHOMYL	16752-77-5	10	4,6,1,2,3	1	10	100	1000	R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
METHOXY-DDT	72-43-5	1	1,2,3,6,8	0.01	0.01	300	400	
METHOXYCHLOR	72-43-5	1	1,2,3,6,8	0.01	0.01	300	400	
2-METHOXYETHANOL	00109-86-4	10	8,1,5,6	1	10	100	1000	3
2-METHOXYETHYL ACETATE	00110-49-6	10	6,1	1	10	100	1000	1
METHOXYETHYLMERCURIC ACETATE	00151-38-2	1	4	0.1	1	10	100	0
4-METHOXYPHENOL	00150-76-5	100	6	10	100	1000	10000	
5-METHOXYPSORALEN	00484-20-8	1	6,7	0.1	1	10	100	C
METHYL (N-AMYL) KETONE	00110-43-0	10	6,1	1	10	100	1000	M
METHYL 2-CHLOROACRYLATE	00080-63-7	1	4	0.1	1	10	100	R

METHYL ACETATE	00079-20-9	10	1,6	1	10	100	1000	:
METHYL ACETOACETATE	00105-45-3	10	6	1	10	100	1000	
METHYL ACETONE	78-93-3	100	2,3,6,8,1	4	50	4	50	D
METHYL ACETYLENE	00074-99-7	10	6	1	10	100	1000	E
METHYL ACRYLATE	00096-33-3	10	1,5,6,8	1	10	100	1000	P
METHYL ALCOHOL	00067-56-1	100	3,1,6,8	10	100	1000	10000	A
METHYL AMYL ALCOHOL	00105-30-6	100	6	10	100	1000	10000	R
METHYL AMYL KETONE	00110-43-0	10	1,6	1	10	100	1000	T
METHYL BORATE	00121-43-7	50	6	5	50	500	5000	M
METHYL BROMIDE	74-83-9	50	2,8,1,3,4,5,6	0.007	0.007	0.5	0.5	E

METHYL BUTENE	00563-46-2	10	1,6	1	10	100	1000	N
METHYL BUTYL KETONE	00591-78-6	10	6,5	1	10	100	1000	T
METHYL BUTYRATE	00623-42-7	10	6,1	1	10	100	1000	
METHYL CCNU	13909-09-6	1	6	0.1	1	10	100	O
METHYL CELLOSOLVE	00109-86-4	10	1,5,6,8	1	10	100	1000	F
METHYL CELLOSOLVE ACETATE	00110-49-6	10	1,6	1	10	100	1000	
METHYL CHLORIDE	00074-87-3	10	8,1,2,3,6	1	10	100	1000	E
METHYL CHLOROACETATE	00096-34-4	100	6	10	100	1000	10000	N
METHYL CHLOROCARBONATE	00079-22-1	50	1,2,3,4,8	5	50	500	5000	V
METHYL CHLOROFORM	71-55-6	50	1,2,3,5,6,8	0.2	4	30	600	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
METHYL CHLOROFORMATE	00079-22-1	50	1,4,2,3,8	5	50	500	5000	
METHYL CHLOROMETHYL ETHER	00107-30-2	5	6,1,2,3,4,8	0.5	5	50	500	
METHYL CYANIDE	00075-05-8	100	1,2,3,6,8	10	100	1000	10000	3
METHYL DISULFIDE	00624-92-0	50		5	50	500	5000	1
METHYL ETHER	00115-10-6	10	6,1	1	10	100	1000	0
METHYL ETHYL ETHER	00540-67-0	10	1,6	1	10	100	1000	
METHYL ETHYL KETONE (MEK)	78-93-3	100	2,3,6,8,1	4	50	4	50	C
METHYL ETHYL KETONE PEROXIDE	01338-23-4	5	6,2,3	0.5	5	50	500	M

METHYL ETHYL PYRIDINE	00104-90-5	10	1,6	1	10	100	1000	R
METHYL FORMATE	00107-31-3	10	1,6	1	10	100	1000	:
METHYL GUTHION	00086-50-0	1	6,1,3,4	0.1	1	10	100	
METHYL IODIDE	00074-88-4	10	2,3,6,8	1	10	100	1000	D
METHYL ISOAMYL KETONE	00110-12-3	10	6	1	10	100	1000	E
METHYL ISOBUTYL CARBINOL	00105-30-6	100	6	10	100	1000	10000	P
METHYL ISOBUTYL KETONE	108-10-1	100	1,3,8,6	0.35	50	0.4	50	A
METHYL ISOCYANATE	00624-83-9	5	7,1,2,3,4,6,8	0.5	5	50	500	R
METHYL ISOPROPENYL KETONE	00814-78-8	10	6,1	1	10	100	1000	T

METHYL ISOTHIOCYANATE	00556-61-6	1	4	0.1	1	10	100	M
METHYL MERCAPTAN	00074-93-1	10	2,3,6,1,4,8	1	10	100	1000	E
METHYL MERCURY	22967-92-6	1	5	0.0003	0.02	5	9	N
METHYL METHACRYLATE	00080-62-6	50	2,3,5,6,8,1	5	50	500	5000	T
METHYL METHACRYLATE MONOMER	00080-62-6	50	1,2,3,5,6,8	5	50	500	5000	
METHYL METHANESULFONATE	00066-27-3	100	6	10	100	1000	10000	O
METHYL N-BUTYL KETONE	00591-78-6	10	6,5	1	10	100	1000	F
METHYL PARATHION	00298-00-0	10	1,2,3,6,4	1	10	100	1000	
METHYL PENTANE	00107-83-5	10	1,6	1	10	100	1000	E
METHYL PHENKAPTON	03735-23-7	1	4	0.1	1	10	100	N
METHYL PHOSPHONIC DICHLORIDE	00676-97-1	1	4	0.1	1	10	100	V
METHYL PROPIONATE	00554-12-1	10	6,1	1	10	100	1000	I
								R

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TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
METHYL PROPYL KETONE	00107-87-9	10	1,6	1	10	100	1000	
alpha-METHYL STYRENE	00098-83-9	10	6	1	10	100	1000	
METHYL STYRENE	25013-15-4	10	6,1	1	10	100	1000	3
METHYL SULFATE	00077-78-1	10	1,2,3,4,6,8	1	10	100	1000	1
METHYL SULFIDE	00075-18-3	10	1,6	1	10	100	1000	0
METHYL TERT-BUTYL ETHER	1634-04-4	6	8,6,5	0.07	5	0.1	100	
METHYL THIOCYANATE	00556-64-9	1	4	0.1	1	10	100	C
METHYL VINYL KETONE	00078-94-4	1	1,6,4	0.1	1	10	100	M
2-METHYL-1-BUTANOL	00137-32-6	100	6	10	100	1000	10000	R

3-METHYL-1-BUTENE	00563-45-1	10	6	1	10	100	1000	:
2-METHYL-1-BUTENE (TECHNICAL)	00563-46-2	10	6,1	1	10	100	1000	
2-METHYL-1-PENTANOL	00105-30-6	100	6	10	100	1000	10000	D
1-METHYL-1-PHENYLETHYL-HYDROPEROXIDE	00080-15-9	5	1,3,6,8	0.5	5	50	500	E
1-METHYL-2,6-DINITROBENZENE	00606-20-2	10	6	1	10	100	1000	P
2-METHYL-2-(METHYTHIO)PROPIONALDEHYDE-O-(METHYCARB..	00116-06-3	1	2,1,3,4,6	0.1	1	10	100	A
2-METHYL-2-BUTANOL	00075-85-4	10	6	1	10	100	1000	R
2-METHYL-2-BUTENE	00513-35-9	10	6,1	1	10	100	1000	T
1-METHYL-2-CHLOROBENZENE	00095-49-8	10	7,6	1	10	100	1000	M

5-METHYL-2-HEXANONE	00110-12-3	10	6	1	10	100	1000	E
4-METHYL-2-PENTANONE	108-10-1	100	1,3,8,6	0.35	50	0.4	50	N
2-METHYL-2-PHENYLPROPANE	00098-06-6	10	6,1	1	10	100	1000	T
2-METHYL-2-PROPANETHIOL	00075-66-1	10	6	1	10	100	1000	
2-METHYL-2-PROPANOL	00075-65-0	10	6,1,8	1	10	100	1000	O
2-METHYL-5-ETHYLPYRIDINE	00104-90-5	10	6,1	1	10	100	1000	F
3-METHYL PYRIDINE	00108-99-6	50	1,7	5	50	500	5000	
N-METHYL-N'-NITRO-N-NITROSOGUANIDINE	00070-25-7	5	1,2,3,6,3	0.5	5	50	500	E
METHYLACRYLONITRILE	00126-98-7	50	6,1,2,3,4,8	5	50	500	5000	N
METHYLAL	00109-87-5	10	1,6	1	10	100	1000	V
METHYLALUMINUM SESQUIBROMIDE	12263-85-3	10	6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
METHYLAMINE	00074-89-5	10	1,6,7,3	1	10	100	1000	
METHYLAMINE, N,N-DIMETHYL-	00075-50-3	10	7,1,3,6	1	10	100	1000	
2-METHYLANILINE	00100-61-8	5	5	0.5	5	50	500	3
o-METHYLANILINE	00095-53-4	10	6,2,3,5,8	1	10	100	1000	1
alpha-METHYLBENZYLAMINE	00098-84-0	10	6	1	10	100	1000	0
1-METHYLBUTADIENE	00504-60-9	10	3,1,6	1	10	100	1000	
n-METHYLBUTYLAMINE	00110-68-9	10	6	1	10	100	1000	
3-METHYLCHOLANTHRENE	00056-49-5	5	2,3,6	0.5	5	50	500	C
METHYLCYCLOHEXANE	00108-87-2	10	1,6	1	10	100	1000	M

METHYLCYCLOPENTANE	00096-37-7	10	1,6	1	10	100	1000	R
METHYLCYCLOPENTADIENYL MANGANESE TRICARBONYL	12108-13-3	1	6,4	0.1	1	10	100	:
METHYLDICHLOROSILANE	00075-54-7	10	1,6	1	10	100	1000	D
4,4'-METHYLENE BIS(2-CHLOROANILINE)	00101-14-4	5	2,3,6,8	0.5	5	50	500	E
METHYLENE BROMIDE	00074-95-3	50	2,3,8,1,6	5	50	500	5000	P
METHYLENE CHLORIDE	75-09-2	50	3,6,7,1,2,5,8	0.005	2	0.1	3	A
METHYLENE OXIDE	00050-00-0	10	2,3,1,4,5,6,8	1	10	100	1000	R
2,2'-METHYLENEBIS(3,4,6-TRICHLOROPHENOL)	00070-30-4	10	2,3,5,6,8	1	10	100	1000	T
n-METHYLETHANOLAMINE	00109-83-1	10	6	1	10	100	1000	M

METHYLHYDRAZINE	00060-34-4	5	4,1,2,3,6,8	0.5	5	50	500	E
METHYLHYDRAZINE (MONO)	00060-34-4	5	6,1,2,3,4,8	0.5	5	50	500	N
2-METHYLLACTONITRILE	00075-86-5	5	2,3,1,4,6	0.5	5	50	500	T
METHYLMERCAPTAN	00074-93-1	10	2,3,6,1,4,8	1	10	100	1000	
METHYLMERCURIC DICYANAMIDE	00502-39-6	1	4	0.1	1	10	100	O
2-METHYLNAPHTHALENE	91-57-6	10	5	0.01	2	0.7	80	F
3-METHYLPENTANE	00096-14-0	10	6	1	10	100	1000	
2-METHYLPROPENAL	00078-85-3	10	6	1	10	100	1000	E
2-METHYLPROPENE	00115-11-7	10	6,1	1	10	100	1000	N
METHYLSTYRENE	25013-15-4	10	6,1	1	10	100	1000	V

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
METHYLTHIOURACIL	00056-04-2	5	2,3,6	0.5	5	50	500	
METHYLTRICHLOROSILANE	00075-79-6	1	1,4,6	0.1	1	10	100	
METHYLTRITHION	00953-17-3	5	1	0.5	5	50	500	3
2-METHYLVALERALDEHYDE	00123-15-9	50	6	5	50	500	5000	1
METOLCARB	01129-41-5	1	4	0.1	1	10	100	0
MEVINPHOS	07786-34-7	5	4,6,1,3	0.5	5	50	500	
MEXACARBATE	00315-18-4	50	1,3,4	5	50	500	5000	C
MILBAN	00137-30-4	10	6	1	10	100	1000	M

MINERAL OIL	(DEP RQ in Gallons)	25	5,6	(See TPH and RCs of other relevant constituents)				R
MINERAL OIL DIELECTRIC FLUID (PCBs - <2mg/L)	(DEP RQ in Gallons)	25	5,6	(See TPH and RCs of other relevant constituents)				:
MINERAL SPIRITS	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				
MIREX	02385-85-5	1	6,5,1	0.1	1	10	100	D
MITOMYCIN C	00050-07-7	5	2,6,4,3	0.5	5	50	500	E
MNNG	00070-25-7	5	3	0.5	5	50	500	P
MOCA	00101-14-4	5	8,2,3,6	0.5	5	50	500	A
MONOCHLOROACETONE	00078-95-5	10	1,6	1	10	100	1000	R
MONOCHLOROBENZENE	108-90-7	10	2,3,1,5,6,8	0.1	0.2	1	3	T
MONOCHLOROETHYLENE	00075-01-4	1	1,2,3,5,6,8	0.002	0.002	0.3	0.7	M
MONOCROTOPHOS	06923-22-4	1	6,4,1	0.1	1	10	100	E

MONOETHANOLAMINE	00141-43-5	10	1,6	1	10	100	1000	N
MONOETHYLAMINE	00075-04-7	10	1,3,6	1	10	100	1000	T
MONOMETHYLAMINE	00074-89-5	10	3,6,1	1	10	100	1000	
MONOMETHYLHYDRAZINE	00060-34-4	5	6,1,2,3,4,8	0.5	5	50	500	O
MORPHOLINE	00110-91-8	10	1,6	1	10	100	1000	F
MORPHOLINE, 2,6-DIMETHYL	00141-91-3	100	7,6	10	100	1000	10000	
MORPHOLINE, 4-ETHYL-	00100-74-3	10	7,6	1	10	100	1000	E
L-5-(MORPHOLINE...)-2-OXAZOLIDINONE	03795-88-8	1	6,7	0.1	1	10	100	N
DL-5-(MORPHOLINOMETHYL..)-2-OXAZOLIDINONE HYDROCHLO..	13146-28-6	1	6,7	0.1	1	10	100	V
MOTH BALLS	91-20-3	10	1,2,3,5,6,8	0.14	0.7	4	20	I
MURIATIC ACID	07647-01-0	100	1,3,4,5,6,8	(See RCs of any listed constituents)				R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
MUSCIMOL	02763-96-4	50	4,1,2,3	5	50	500	5000	
MUSTARD GAS	00505-60-2	1	2,8,6,4	0.1	1	10	100	
MUSTARD OIL	00057-06-7	10	6	1	10	100	1000	3
N-PROPYLAMINE	00107-10-8	100	2,3,1,6	10	100	1000	10000	1
NABAM	00142-59-6	1	7,6,1	0.1	1	10	100	0
NALED	00300-76-5	5	1,3,6	0.5	5	50	500	
NAPHTHA	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				C
NAPHTHA VM&P	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				M
NAPHTHA VM&P 50 DEGREE FLASH	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				R

NAPHTHA VM&P HIGH FLASH	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				:
NAPHTHA VM&P, REGULAR	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				
5,12-NAPHTHACENEDIONE, (8S-CIS)-8-ACETYL-10-[3-...	20830-81-3	5	2,3,6	0.5	5	50	500	D
5,12-NAPHTHACENEDIONE, 8-ACETYL-10-[(3-AMINO-2,3,6-TR..	20830-81-3	5	7,2,3,6	0.5	5	50	500	E
2-NAPHTHALENAMINE	00091-59-8	5	7,2,3,6,8	0.5	5	50	500	P
1-NAPHTHALENAMINE	00134-32-7	10	2,3,6,8	1	10	100	1000	A
NAPHTHALENAMINE, N,N'-BIS(2-CHLOROETHYL)-	00494-03-1	10	3	1	10	100	1000	R
2-NAPHTHALENAMINE, N,N-BIS(2-CHLOROETHYL)-	00494-03-1	10	7,3,6,3	1	10	100	1000	T
NAPHTHALENE	91-20-3	10	1,2,3,5,6,7,8	0.14	0.7	4	20	M

NAPHTHALENE, 2-CHLORO-	00091-58-7	100	3,7,1,2,6	10	100	1000	10000	E
NAPHTHALENE, DECAHYDRO-	00091-17-8	10	7,1,6	1	10	100	1000	N
NAPHTHALENE, HEXACHLORO	01335-87-1	1	,6,8	0.1	1	10	100	T
1,4-NAPHTHALENEDIONE	00130-15-4	100	2,3,1,6	10	100	1000	10000	
1,4-NAPHTHALENEDIONE, 2,3-DICHLORO-	00117-80-6	1	1,3,6	0.1	1	10	100	O
2,7-NAPHTHALENEDISULFONIC ACID,3,3'-[(3,3'-DIMETHYL-..	00072-57-1	5	2,3,7,6,8	0.5	5	50	500	F
1-NAPHTHALENOL, METHYLCARBAMATE	00063-25-2	10	7,1,3,6,8	1	10	100	1000	
NAPHTHENIC ACID	01338-24-5	10	1,3,6	1	10	100	1000	E
1,4-NAPHTHOQUINONE	00130-15-4	100	1,2,3,6	10	100	1000	10000	N
1-NAPHTHYL-2-THIOUREA	00086-88-4	10	2,1,3,4,6	1	10	100	1000	V
2-NAPHTHYLAMINE	00091-59-8	5	2,3,6,8	0.5	5	50	500	I
beta-NAPHTHYLAMINE	00091-59-8	5	2,3,6,8	0.5	5	50	500	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2	S1	S2	
				(mg/l)	(mg/l)	(mg/kg)	(mg/kg)	
1-NAPHTHYLAMINE	00134-32-7	10	2,3,6,8	1	10	100	1000	
alpha-NAPHTHYLAMINE	00134-32-7	10	2,3,8,6	1	10	100	1000	
2-NAPHTHYLAMINE, N,N-BIS(2-CHLOROETHYL)-	00494-03-1	10	3,6,3	1	10	100	1000	3
alpha-NAPHTHYLTHIOUREA	00086-88-4	10	3,1,2,4,6	1	10	100	1000	1
NAPHTHYLTHIOUREA (alpha)	00086-88-4	10	1,2,3,4,6	1	10	100	1000	0
NAPTHALENE, BETA-CHLORO	00091-58-7	100	2,1,3,6	10	100	1000	10000	
NEMACUR	22224-92-6	1	6,4,1	0.1	1	10	100	C
NEOHEXANE	00075-83-2	10	1,6	1	10	100	1000	M
NIALATE	00563-12-2	5	6,1,3,4	0.5	5	50	500	R

NICKEL	7440-02-0	10	6,3,5,7,2,8	0.1	0.2	700	1000	:
NICKEL ACETATE	00373-02-4	1	6	0.1	1	10	100	
NICKEL AMMONIUM SULFATE	15699-18-0	10	3,6	(See RCs of any listed constituents)				D
NICKEL CARBONYL	13463-39-3	5	4,6,2,3,1	(See RCs of any listed constituents)				E
NICKEL CARBONYL (Ni(CO)4), (T-4)	13463-39-3	5	1,2,3,4,6	(See RCs of any listed constituents)				P
NICKEL CHLORIDE	07718-54-9	10	3,6	(See RCs of any listed constituents)				A
NICKEL CHLORIDE	37211-05-5	10	1,3,7	(See RCs of any listed constituents)				R
NICKEL CHLORIDE (NiCl2)	07718-54-9	10	7,3,6	(See RCs of any listed constituents)				T
NICKEL COMPOUNDS, NOS		10	3	(See RCs of any listed constituents)				M

NICKEL CYANIDE	00557-19-7	5	3,1,2,7,6	(See RCs of any listed constituents)				E
NICKEL HYDROXIDE	12054-48-7	5	1,3,6	(See RCs of any listed constituents)				N
NICKEL HYDROXIDE	12125-56-3	1	6	(See RCs of any listed constituents)				T
NICKEL NITRATE	14216-75-2	10	3,6	(See RCs of any listed constituents)				
NICKEL SULFATE	07786-81-4	10	1,3,6	(See RCs of any listed constituents)				O
NICKEL TETRACARBONYL	13463-39-3	5	2,3,1,4,6	(See RCs of any listed constituents)				F
NICKEL(II) CYANIDE	00557-19-7	5	3,2,1,6	(See RCs of any listed constituents)				
NICOTINE	00054-11-5	10	1,6,4,2,3	1	10	100	1000	E
NICOTINE (ALKALOID)	00054-11-5	10	6,1,2,3,4	1	10	100	1000	N
NICOTINE AND SALTS	00054-11-5	10	2,3,1,4,6	1	10	100	1000	V
NICOTINE SULFATE	00065-30-5	10	1,4	(See RCs of any listed constituents)				I
NITIC ACID, ZIRCONIUM(4+) SALT	13746-89-9	100	7,1,3	(See RCs of any listed constituents)				R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations				
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
NITRIC ACID	07697-37-2	50	4,6,3,7,8	(See RCs of any listed constituents)				
NITRIC ACID SILVER(1+) SALT	07761-88-8	1	7,1,3,6	(See RCs of any listed constituents)				
NITRIC ACID THALLIUM (I) SALT	10102-45-1	10	2,3,1	(See RCs of any listed constituents)				3
NITRIC ACID, BERYLLIUM SALT	13597-99-4	1	7,1,3,6	(See RCs of any listed constituents)				1
NITRIC ACID, BERYLLIUM SALT, TRIHYDRATE	07787-55-5	1	7,3,6	(See RCs of any listed constituents)				0
NITRIC ACID, COPPER(2+) SALT	03251-23-8	10	7,1,3,6	(See RCs of any listed constituents)				
NITRIC ACID, ETHYL ESTER	00625-58-1	10	7,1,6	1	10	100	1000	C
NITRIC ACID, IRON (3) SALT	10421-48-4	50	1,3,6	(See RCs of any listed constituents)				M
NITRIC ACID, LEAD(2) SALT	10099-74-8	5	6,1,3	(See RCs of any listed constituents)				R

NITRIC ACID, MERCURY(1+) SALT	10415-75-5	5	7,1,3,6	(See RCs of any listed constituents)				:
NITRIC ACID, MERCURY(1+) SALT, MONOHYDRATE	07782-86-7	5	7,3,6	(See RCs of any listed constituents)				
NITRIC ACID, MERCURY(2) SALT	10045-94-0	5	3,1,6	(See RCs of any listed constituents)				D
NITRIC ACID, NICKEL SALT	14216-75-2	10	7,3,6	(See RCs of any listed constituents)				E
NITRIC ACID, ZINC SALT	07779-88-6	50	7,1,3	(See RCs of any listed constituents)				P
NITRIC ETHER	00625-58-1	10	1,6	1	10	100	1000	A
NITRIC OXIDE	10102-43-9	5	4,6,1,2,3	(See RCs of any listed constituents)				R
5-NITRO-O-TOLUIDINE	00099-55-8	10	2,3,6,8	1	10	100	1000	T
p-NITROANILINE	00100-01-6	100	1,2,3,6	10	100	1000	10000	M

NITROBENZENE	00098-95-3	50	3,4,5,6,8,1,2	5	50	500	5000	E
NITROBENZOL	00098-95-3	50	1,2,3,4,5,6,8	5	50	500	5000	N
NITROCELLULOSE	09004-70-0	50	1,6	5	50	500	5000	T
M-NITROCHLOROBENZENE	00121-73-3	100	1,6	10	100	1000	10000	
NITROCYCLOHEXANE	01122-60-7	1	6,4	0.1	1	10	100	O
NITROETHANE	00079-24-3	10	1,6	1	10	100	1000	F
NITROGEN (LIQUIFIED)	07727-37-9	10	6	(Not Applicable)				
NITROGEN DIOXIDE	10102-44-0	5	4,6,1,2,3	(See RCs of any listed constituents)				E
NITROGEN DIOXIDE	10544-72-6	5	3,6	(See RCs of any listed constituents)				N
NITROGEN MUSTARD	00051-75-2	1	2,8,4,6	0.1	1	10	100	V
								I
								R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
NITROGEN PEROXIDE	10102-44-0	5	6,1,2,3,4	(See RCs of any listed constituents)				
NITROGEN TETROXIDE	10544-72-6	5	6,3	(See RCs of any listed constituents)				
NITROGEN(II) OXIDE	10102-43-9	5	2,3,1,4,6	(See RCs of any listed constituents)				3
NITROGEN(IV) OXIDE	10102-44-0	5	2,3,1,4,6	(See RCs of any listed constituents)				1
NITROGEN(IV) OXIDE	10544-72-6	5	3,6	(See RCs of any listed constituents)				0
NITROGLYCERIN	00055-63-0	5	1,6,8,2,3	0.5	5	50	500	
NITROGLYCERINE	00055-63-0	5	2,3,6,1,8	0.5	5	50	500	C
NITROMETHANE	00075-52-5	10	1,6	1	10	100	1000	M
o-NITROPHENOL	00088-75-5	10	1,3,8,6	1	10	100	1000	R

2-NITROPHENOL	00088-75-5	10	3,8,1,6	1	10	100	1000	:
p-NITROPHENOL	00100-02-7	10	1,3,6,2,8	1	10	100	1000	
4-NITROPHENOL	00100-02-7	10	2,3,8,1,6	1	10	100	1000	D
m-NITROPHENOL	00554-84-7	10	1,3,6	1	10	100	1000	E
NITROPHENOL (MIXED)	25154-55-6	10	3,6	1	10	100	1000	P
2-NITROPROPANE	00079-46-9	5	2,3,6,8	0.5	5	50	500	A
1-NITROPROPANE	00108-03-2	10	1,6	1	10	100	1000	R
N-NITROSO-DI-N-PROPYLAMINE	00621-64-7	5	2,3,8,6	0.5	5	50	500	T
N-NITROSO-N-ETHYLUREA	00759-73-9	1	6,2,3,8	0.1	1	10	100	M

N-NITROSO-N-METHYLUREA	00684-93-5	1	6,2,3,8	0.1	1	10	100	E
N-NITROSO-N-METHYLURETHANE	00615-53-2	1	6,2,3	0.1	1	10	100	N
N-NITROSODI-N-BUTYLAMINE	00924-16-3	5	6,2,3,8	0.5	5	50	500	T
N-NITROSODI-N-PROPYLAMINE	00621-64-7	5	6,2,3,8	0.5	5	50	500	
N-NITROSODIETHANOLAMINE	01116-54-7	1	6,2,3	0.1	1	10	100	O
N-NITROSODIETHYLAMINE	00055-18-5	1	2,3,6,8	0.1	1	10	100	F
N-NITROSODIMETHYLAMINE	00062-75-9	5	2,3,6,8,4	0.5	5	50	500	
N-NITROSODIPHENYLAMINE	00086-30-6	10	1,3,6,8	1	10	100	1000	E
NITROSOMETHYLAMINE	00062-75-9	5	4,2,3,6,8	0.5	5	50	500	N
4-(N-NITROSOMETHYLAMINO)-1-(3-PYRIDYL)-1-BUTANONE	64091-91-4	1	6	0.1	1	10	100	V
N-NITROSOMETHYLVINYLAMINE	04549-40-0	5	6,2,3,8	0.5	5	50	500	I
								R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
N-NITROSOPIPERIDINE	00100-75-4	5	2,3,6,8	0.5	5	50	500	
N-NITROSOPYRROLIDINE	00930-55-2	1	6,3,2	0.1	1	10	100	
NITROSOPYRROLIDINE	00930-55-2	1	2,3,6	0.1	1	10	100	3
NITROSYL CHLORIDE	02696-92-6	10	1	(See RCs of any listed constituents)				1
o-NITROTOLUENE	00088-72-2	50	3,6	5	50	500	5000	0
m-NITROTOLUENE	00099-08-1	50	3,6	5	50	500	5000	
NITROTOLUENE	00099-08-1	50	6,3	5	50	500	5000	C
p-NITROTOLUENE	00099-99-0	50	3,6	5	50	500	5000	M
NITROTOLUENE	01321-12-6	50	1,3,6	5	50	500	5000	R

NITROUS ACID, SODIUM SALT	07632-00-0	10	7,1,3	(See RCs of any listed constituents)				:
NITROUS ETHER	00109-95-5	10	1,6	1	10	100	1000	
NONANE	00111-84-2	10	6	1	10	100	1000	D
NONYLPHENOL	25154-52-3	5	1,6,7	0.5	5	50	500	E
NONYLTRICHLOROSILANE	05283-67-0	10	1	1	10	100	1000	P
NORBORMIDE	00991-42-4	1	4	0.1	1	10	100	A
5-NORBORNENE-2,3-DIMETHANOL,1,4,5,6,7,7-HEXACHLORO..	115-29-7	1	1,2,3,6,4	0.002	0.002	0.6	1	R
NORDHAUSEN ACID	07664-93-9	50	1,3,4,5,6,8	(See RCs of any listed constituents)				T
19-NORPREGN-4-EN-20-YNE-3,17-DIOL, DIACETATE,(3a,17`)	00297-76-7	1	7	0.1	1	10	100	M
O,O-DIETHYL S-[2-(ETHYLTHIO)ETHYL] PHOSPHORODITH..	00298-04-4	1	3,1,4,6	0.1	1	10	100	E

OCHRATOXIN A	00303-47-9	1	6	0.1	1	10	100	N
OCTABROMOBIPHENYL	27858-07-7	1	6	0.1	1	10	100	T
OCTADECANOIC ACID, CADMIUM SALT	02223-93-0	1	7,4	(See RCs of any listed constituents)				
OCTADECANOIC ACID, LEAD (2+) SALT	01072-35-1	5	7,1,3,6	(See RCs of any listed constituents)				O
OCTADECANOIC ACID, LEAD SALT	07428-48-0	5	7,1,3,6	(See RCs of any listed constituents)				F
OCTAMETHYLPYROPHOSPHORAMIDE	00152-16-9	10	1,2,3,4	1	10	100	1000	
OCTANAL	00124-13-0	100	7,6	10	100	1000	10000	E
OCTANE	00111-65-9	10	1,6	1	10	100	1000	N
1-OCTANETHIOL	00111-88-6	100	6	10	100	1000	10000	V
N-OCTANOYL PEROXIDE	00762-16-3	10	1	1	10	100	1000	I
								R

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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2	S1	S2	
				(mg/l)	(mg/l)	(mg/kg)	(mg/kg)	
1-OCTENE	00111-66-0	10	6	1	10	100	1000	
OCTYLTRICHLORSILANE	05283-66-9	10	1	1	10	100	1000	
OIL (See specific oil listings; i.e., gasoline, petroleum based oil, animal oil, etc.)		5						3
OIL OF MIRBANE	00098-95-3	50	1,2,3,4,5,6,8	5	50	500	5000	1
OIL OF TURPENTINE	08006-64-2	10	7,1,6	(See TPH RC and RCs of other relevant constituents)				0
OIL OF VITRIOL	07664-93-9	50	1,3,4,5,6,8	(See RCs of any listed constituents)				
OLEUM (fuming sulfuric acid)	08014-95-7	50	1,3,6	(See RCs of any listed constituents)				
ORGANORHODIUM COMPLEX (PMN-82-147)		1	4	0.1	1	10	100	C
OSMIUM (VIII) OXIDE	20816-12-0	50	2,1,3,6,8,3	(See RCs of any listed constituents)				M

OSMIUM OXIDE	20816-12-0	50	3,7,1,2,6,8,3	(See RCs of any listed constituents)				:
OSMIUM OXIDE OSO4 (T-4)-	20816-12-0	50	3	(See RCs of any listed constituents)				
OSMIUM TETROXIDE	20816-12-0	50	6,1,2,3,8,3	(See RCs of any listed constituents)				D
OUABAIN	00630-60-4	1	4	0.1	1	10	100	E
7-OXABICYCLO[2.2.1]HEPTANE-2,3-DICARBOXYLIC ACID	00145-73-3	50	2,3,7,1,6	5	50	500	5000	P
OXAMYL	23135-22-0	1	4,5,1	0.1	1	10	100	A
1,2-OXATHIOLANE, 2,2-DIOXIDE	01120-71-4	5	2,3,6,8	0.5	5	50	500	R
2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2-CHLOROETH..	00050-18-0	5	7,2,3,6	0.5	5	50	500	T
2H-1,3,2-OXAZAPHOSPHORINE,2-[BIS(2-CHLOROETHYL)AMINO]..	00050-18-0	5	2,3,6	0.5	5	50	500	M
2-OXAZOLIDINONE,5-(4-MORPHOLINYLMETHYL)-3-[[(5-NIT..	03795-88-8	1	7	0.1	1	10	100	E

2-OXAZOLIDINONE,5-(4-MORPHOLINYLMETHYL)-3-[[(5-NIT..	13146-28-6	1	7	0.1	1	10	100	N
OXETANE, 3,3-BIS(CHLOROMETHYL)	00078-71-7	1	7,4	0.1	1	10	100	T
2-OXETANONE	00057-57-8	1	7,6,4,8	0.1	1	10	100	
2-OXETANONE, 4-METHYLENE-	00674-82-8	10	7,6	1	10	100	1000	O
OXIRANE	00075-21-8	5	2,3,7,1,4,6,8	0.5	5	50	500	F
OXIRANE, (CHLOROMETHYL)-	00106-89-8	10	2,3,4,5,6,8	1	10	100	1000	
OXIRANE, 2,2'-[OXYBIS(METHYLENE)]BIS-	02238-07-5	1	7,4,6	0.1	1	10	100	E
OXIRANE, 2-(CHLOROMETHYL)-	00106-89-8	10	2,3,4,5,6,8	1	10	100	1000	N
OXIRANE, ETHENYL-	00930-22-3	10	7,6	1	10	100	1000	V
								I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
OXIRANE, ETHYL-	00106-88-7	10	7,6,8	1	10	100	1000	
OXIRANE, METHYL-	00075-56-9	10	7,1,3,4,5,6,8	1	10	100	1000	
OXIRANE, [(2-PROPENYLOXY)METHYL]-	00106-92-3	50	7,6	5	50	500	5000	3
OXIRANECARBOXALDEHYDE	00765-34-4	5	7,2,3,6	0.5	5	50	500	1
OXIRANECARBOXYALDEHYDE	00765-34-4	5	3,2,6	0.5	5	50	500	0
OXYDISULFOTON	02497-07-6	1	4,1	0.1	1	10	100	
OXYGEN (LIQUID)	07782-44-7	10	6	(Not Applicable)				C
OZONE	10028-15-6	1	4,6	(Not Applicable)				M
PARAFORMALDEHYDE	30525-89-4	50	1,3,7,6	5	50	500	5000	R

PARALDEHYDE	00123-63-7	50	1,2,3,6,8	5	50	500	5000	:
PARANITROANILINE	00100-01-6	100	1,2,3,6	10	100	1000	10000	
PARAOXON	00311-45-5	10	3,1,2,6	1	10	100	1000	D
PARAQUAT	01910-42-5	1	6,4	0.1	1	10	100	E
PARAQUAT BIS(METHYL SULFATE)	02074-50-2	1	6,4	0.1	1	10	100	P
PARAQUAT DICHLORIDE	01910-42-5	1	6,4	0.1	1	10	100	A
PARAQUAT METHOSULFATE	02074-50-2	1	4,6	0.1	1	10	100	R
PARATHION	00056-38-2	5	1,2,3,6,4,8	0.5	5	50	500	T
PARATHION-METHYL	00298-00-0	10	4,1,2,3,6	1	10	100	1000	M

PARIS GREEN	12002-03-8	1	1,4,3	(See RCs of any listed constituents)				E
PCB	1336-36-3	1	2,1,3,5,6,8	0.0005	0.005	1	4	N
PCB-CONTAMINATED MATERIAL < 500 ppm (DEP RQ in gal)		10	5	(See RCs of any listed constituents)				T
PCB-CONTAMINATED MATERIAL =>500 ppm (DEP RQ in gal)		1	5	(See RCs of any listed constituents)				
PCNB	00082-68-8	10	2,3,6,8,3	1	10	100	1000	O
PCP	87-86-5	5	1,2,3,5,6,8	0.001	0.2	3	10	F
PENTABORANE	19624-22-7	1	4,6,1	(See RCs of any listed constituents)				
PENTABORANE(9)	19624-22-7	1	7,1,4,6	(See RCs of any listed constituents)				E
PENTABORON NONAHYDRIDE	19624-22-7	1		(See RCs of any listed constituents)				N
PENTACHLOROBENZENE	00608-93-5	5	2,3,6	0.5	5	50	500	V
PENTACHLOROETHANE	00076-01-7	5	2,3,1	0.5	5	50	500	I
PENTACHLORONITROBENZENE	00082-68-8	10	2,3,6,8,3	1	10	100	1000	R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PENTACHLOROPHENOL	87-86-5	5	1,2,3,5,6,8	0.001	0.2	3	10	
PENTACHLOROPHOSPHORANE	10026-13-8	1	6,1,4	(See RCs of any listed constituents)				
1-PENTADECANAMINE	02570-26-5	1	7,4	0.1	1	10	100	3
PENTADECYLAMINE	02570-26-5	1	4	0.1	1	10	100	1
1,3-PENTADIENE	00504-60-9	10	1,3,7,6	1	10	100	1000	0
PENTADIENE (CIS & TRANS MIXED)	00504-60-9	10	6,1,3	1	10	100	1000	
PENTALIN	00076-01-7	5	2,3,1	0.5	5	50	500	C

PENTAMETHYLENE OXIDE	00142-68-7	50	6	5	50	500	5000	M
PENTANAL	00110-62-3	10	7,6	1	10	100	1000	R
PENTANAL, 2-METHYL-	00123-15-9	50	7,6	5	50	500	5000	:
PENTANE	00109-66-0	10	1,6	1	10	100	1000	
PENTANE, 1-CHLORO-	00543-59-9	10	7,1,6	1	10	100	1000	D
PENTANE, 2,2,4-TRIMETHYL-	00540-84-1	10	7,1,6	1	10	100	1000	E
PENTANE, 2-METHYL-	00107-83-5	10	7,1,6	1	10	100	1000	P
PENTANE, 3-METHYL-	00096-14-0	10	7,6	1	10	100	1000	A
2,4-PENTANEDIOL, 2-METHYL-	00107-41-5	10	7,6	1	10	100	1000	R

2,4-PENTANEDIONE	00123-54-6	100	6	10	100	1000	10000	T
PENTANOIC ACID	00109-52-4	10	7,1,6	1	10	100	1000	M
1-PENTANOL	00071-41-0	10	6,7	1	10	100	1000	E
1-PENTANOL, 2-METHYL-	00105-30-6	100	7,6	10	100	1000	10000	N
2-PENTANOL, ACETATE	00626-38-0	100	7,3	10	100	1000	10000	T
3-PENTANONE	00096-22-0	10	7,1,6	1	10	100	1000	
2-PENTANONE	00107-87-9	10	6,1	1	10	100	1000	O
2-PENTANONE, 4-HYDROXY-4-METHYL-	00123-42-2	10	7,1,6	1	10	100	1000	F
2-PENTANONE, 4-METHYL-	108-10-1	100	1,3,8,6	0.35	50	0.4	50	
1-PENTENE	00109-67-1	10	7,6	1	10	100	1000	E
2-PENTENE, (E)-	00646-04-8	10	7,6	1	10	100	1000	N
2-PENTENE, (Z)-	00627-20-3	10	7,6	1	10	100	1000	V
1-PENTENE, 2,4,4-TRIMETHYL-	00107-39-1	10	7,6	1	10	100	1000	I
2-PENTENE, 2,4,4-TRIMETHYL-	00107-40-4	10	7,6	1	10	100	1000	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
2-PENTENE, 3,4,4-TRIMETHYL-	00598-96-9	50	7,6	5	50	500	5000	
2,4-PENTENEDIONE	00123-54-6	100	7,6	10	100	1000	10000	
PENTYL ACETATE	00628-63-7	100	6,1,3	10	100	1000	10000	3
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) (sum of constituents listed below)				2E-05				1
PERFLUORODECANOIC ACID (PFDA)	335-76-2	1	see PFAS		40	0.0002	0.4	0
PERFLUOROHEPTANOIC ACID (PFHpA)	375-85-9	1	see PFAS		40	0.0002	0.4	
PERFLUOROHEXANESULFONIC ACID (PFHxS)	355-46-4	1	see PFAS		0.5	0.0002	0.4	C
PERFLUORONONANOIC ACID (PFNA)	375-95-1	1	see PFAS		40	0.0002	0.4	M
PERFLUOROOCTANESULFONIC ACID (PFOS)	1763-23-1	1	see PFAS		0.5	0.0002	0.4	
PERFLUOROOCTANOIC ACID (PFOA)	335-67-1	1	see PFAS		40	0.0002	0.4	R
PERACETIC ACID	00079-21-0	1	4,6,8,1	0.1	1	10	100	:
PERCHLORATE COMPOUNDS, NOS		10	6,10,002	1	0.1	6		
PERCHLORIC ACID	07601-90-3	10	6,1,7	(See RCs of any listed constituents)				D

PERCHLOROETHYLENE	127-18-4	10	1,3,5,6,8	0.005	0.02	1	4	E
PERCHLOROMETHYL MERCAPTAN	00594-42-3	10	6,1,2,3,4	1	10	100	1000	P
PERFLUOROISOBUTYLENE	00382-21-8	1	6	0.1	1	10	100	A
PERMANGANATE OF POTASH	07722-64-7	10	1,3,6	(See RCs of any listed constituents)				R
PERMANGANIC ACID (HMnO4), POTASSIUM SALT	07722-64-7	10	7,1,3,6	(See RCs of any listed constituents)				T
PERMETHRIN	52645-53-1	1	6	0.1	1	10	100	M
PEROXIDE, BIS(1,1-DIMETHYLETHYL)-	00110-05-4	10	7,1,6	1	10	100	1000	E
PEROXIDE, DIACETYL-	00110-22-5	10	7,1,6	1	10	100	1000	N
PEROXIDE, DIBENZOYL	00094-36-0	10	7,1,6,8	1	10	100	1000	T

PEROXYACETIC ACID	00079-21-0	1	1,6,4,8	0.1	1	10	100	O
PETROLEUM BASED OIL (DEP RQ in gallons)		10	5	(See TPH RC and RCs of other relevant constituents)				F
PETROLEUM DISTILLATES	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				
PETROLEUM ETHER	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				
PETROLEUM HYDROCARBONS								E
TOTAL PETROLEUM HYDROCARBONS (TPH) (DEP RQ in gallons)		10	5	0.2	5	1000	3000	N
ALIPHATIC HYDROCARBONS								V
C ₅ through C ₈ Aliphatic Hydrocarbons				0.3	3	100	500	I
C ₉ through C ₁₂ Aliphatic Hydrocarbons				0.7	5	1000	3000	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations		
				GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
C ₉ through C ₁₈ Aliphatic Hydrocarbons				0.7	5	1000	3000
C ₁₉ through C ₃₆ Aliphatic Hydrocarbons				14	50	3000	5000
AROMATIC HYDROCARBONS							
C ₉ through C ₁₀ Aromatic Hydrocarbons				0.2	4	100	500
C ₁₁ through C ₂₂ Aromatic Hydrocarbons				0.2	5	1000	3000
PETROLEUM NAPHTHA	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)			
PHENACETIN	00062-44-2	10	2,3,6	1	10	100	1000

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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PHENACYLCHLORIDE	00532-27-4	10	6,8	1	10	100	1000	
PHENANTHRENE	85-01-8	100	3,7,6	0.05	10	10	1000	
PHENAZOPYRIDINE	00094-78-0	100	6	10	100	1000	10000	3
PHENOL	108-95-2	50	1,2,3,4,5,6,8	0.9	1	0.9	10	1
PHENOL, 4-(DIMETHYLAMINO)-3-METHYL-,METHYLCARBAMATE..	02032-59-9	10	1,7	1	10	100	1000	0
PHENOL, 2-(1,3-DIOXOLAN-2-YL)-, METHYLCARBAMATE	06988-21-2	10	1,7	1	10	100	1000	
PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-	00070-30-4	10	7,2,3,5,6,8	1	10	100	1000	
PHENOL, 2-(1-METHYLETHYL)-, METHYLCARBAMATE	02631-40-5	1	1,7	0.1	1	10	100	C
PHENOL, 2,2'-THIOBIS(4,6-DICHLORO)-	00097-18-7	10	7	1	10	100	1000	M
PHENOL, 2,2'-THIOBIS[4-CHLORO-6-METHYL]-	04418-66-0	1	4,7	0.1	1	10	100	R
PHENOL, 2,3,4,6-TETRACHLORO-	00058-90-2	5	2,3,7,1,6	0.5	5	50	500	:
PHENOL, 2,3,4-TRICHLORO-	15950-66-0	5	7,3	0.5	5	50	500	
PHENOL, 2,3,5-TRICHLORO-	00933-78-8	5	7,3	0.5	5	50	500	D

PHENOL, 2,3,6-TRICHLORO-	00933-75-5	5	7,3	0.5	5	50	500	E
PHENOL, 2,4,5-TRICHLORO-	95-95-4	5	2,3,7,8,6	0.2	3	3	600	P
PHENOL, 2,4,6-TRICHLORO-	88-06-2	5	2,3,5,6,7,8	0.01	0.5	0.7	20	A
PHENOL, 2,4,6-TRINITRO-	00088-89-1	10	7,1,6,8	1	10	100	1000	R
PHENOL, 2,4,6-TRINITRO-, AMMONIUM SALT	00131-74-8	5	3,1,6	(See RCs of any listed constituents)				T
PHENOL, 2,4-DICHLORO-	120-83-2	10	2,3,1,8,6	0.01	2	0.7	40	M
PHENOL, 2,4-DIMETHYL-	105-67-9	10	1,2,3,8,6	0.06	40	0.7	100	E
PHENOL, 2,4-DINITRO-	51-28-5	5	2,3,7,8,6	0.2	20	3	50	N
PHENOL, 2,4-DINITRO-6-(1-METHYLPROPYL)-	00088-85-7	50	2,3,1,4	5	50	500	5000	T

PHENOL, 2,4-DINITRO-6-METHYL-, AND SALTS	00534-52-1	5	2,3,1,4,6,8	0.5	5	50	500	O
PHENOL, 2,5-DINITRO-	00329-71-5	5	7,3,6	0.5	5	50	500	F
PHENOL, 2,6-DICHLORO-	00087-65-0	10	2,3,7,1,6	1	10	100	1000	
PHENOL, 2,6-DINITRO-	00573-56-8	5	7,3,6	0.5	5	50	500	E
PHENOL, 2-(1,1-DIMETHYLETHYL)-4,6-DINITRO-	01420-07-1	1	7,4,1	0.1	1	10	100	N
PHENOL, 2-(1-METHYLETHOXY)-, METHYLCARBAMATE	00114-26-1	1	7,6,8,1	0.1	1	10	100	V
PHENOL, 2-CHLORO-	95-57-8	10	1,2,3,6	0.01	7	0.7	100	I
PHENOL, 2-CYCLOHEXYL-4,6-DINITRO-	00131-89-5	10	2,3,1,6	1	10	100	1000	R

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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PHENOL, 2-METHYL-	00095-48-7	50	7,3,4,6,8	5	50	500	5000	
PHENOL, 2-METHYL-4,6-DINITRO-	00534-52-1	5	7,1,2,3,4,6,8	0.5	5	50	500	
PHENOL, 3,4,5-TRICHLORO-	00609-19-8	5	7,3	0.5	5	50	500	3
PHENOL, 3,5-DIMETHYL-4-(METHYLTHIO)-, METHYLCARB..	02032-65-7	5	7,1,3,4,6	0.5	5	50	500	1
PHENOL, 3-(1-METHYLETHYL)-, METHYLCARBAMATE	00064-00-6	1	7,4	0.1	1	10	100	0
PHENOL, 3-METHYL-	00108-39-4	50	3,6,8	5	50	500	5000	
PHENOL, 3-METHYL-5-(1-METHYLETHYL)-, METHYLCARBA..	02631-37-0	1	7,4,1	0.1	1	10	100	
PHENOL, 3-NITRO-	00554-84-7	10	7,1,3,6	1	10	100	1000	C
PHENOL, 4,4'-(1,2-DIETHYL-1,2-ETHENEDIYL)BIS	00056-53-1	1	7,2,3,6	0.1	1	10	100	M
PHENOL, 4,4'-(1,2-DIETHYL-1,2-ETHENEDIYL)BIS-,(E)	00056-53-1	1	3	0.1	1	10	100	R
PHENOL, 4-(DIMETHYLAMINO)-3,5-DIMETHYL-,METHYLCA..	00315-18-4	50	7,1,3,4	5	50	500	5000	:
PHENOL, 4-CHLORO-3-METHYL-	00059-50-7	100	2,3,7,1,6	10	100	1000	10000	
-----								D
PHENOL, 4-ETHYL-	00123-07-9	100	7,6	10	100	1000	10000	E
PHENOL, 4-METHOXY-	00150-76-5	100	7,6	10	100	1000	10000	P
PHENOL, 4-METHYL-	00106-44-5	50	3,5,6,8	5	50	500	5000	A
PHENOL, 4-NITRO-	00100-02-7	10	2,3,1,6,8	1	10	100	1000	R
PHENOL, DIMETHYL-	01300-71-6	50	1,3	0.1	20	0.7	10	T
PHENOL, DINITRO-	25550-58-7	5	7,1,3,6	0.2	2	3	6	M
PHENOL, METHYL-	01319-77-3	50	2,1,3,6,8	5	50	500	5000	E
PHENOL, 2-METHYL-4,6-DINITRO-, SODIUM SALT	02312-76-7	10	1,7	1	10	100	1000	N
PHENOL, NITRO-	25154-55-6	10	7,3,6	1	10	100	1000	T

PHENOL, O-CHLORO-	95-57-8	10	1,2,3,6	0.01	7	0.7	100	
PHENOL, PENTACHLORO-	87-86-5	5	1,2,3,7,5,6,8	0.001	0.2	3	10	O
PHENOL, PENTACHLORO-, SODIUM SALT	00131-52-2	1	1,2	(See RCs of any listed constituents)				F
PHENOL, TRICHLORO-	25167-82-2	5	7,1,3	0.01	0.1	2	2	
PHENOL,(1,1-DIMETHYLETHYL)-4-METHOXY-	25013-16-5	1	7	0.1	1	10	100	E
PHENOXARSINE, 10,10'-OXYDI	00058-36-6	1	4	0.1	1	10	100	N
PHENTHOATE	02597-03-7	1	1	0.1	1	10	100	V
PHENYL ETHER VAPOR	00101-84-8	10	6	1	10	100	1000	I
PHENYL MERCAPTAN	00108-98-5	10	1,2,3,4,6	1	10	100	1000	R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PHENYL, 2-(1-METHYLPROPYL)-4,6-DINITRO-	00088-85-7	50	7,1,2,3,4	5	50	500	5000	
PHENYL, 2-NITRO-	00088-75-5	10	7,1,3,8,6	1	10	100	1000	
L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]-	00148-82-3	1	7,2,3,6	0.1	1	10	100	3
PHENYLDICHLOROARSINE	00696-28-6	1	1,2,3,4	0.1	1	10	100	1
M-PHENYLENE DIAMINE	00108-45-2	100	6	10	100	1000	10000	0
1,10-(1,2-PHENYLENE)PYRENE	193-39-5	10	2,3,6	0.0005	0.1	20	300	
PHENYLETHYLENE	00100-42-5	50	3,5,6,1,8	0.1	0.1	3	4	C
PHENYLHYDRAZINE	00100-63-0	50	6	5	50	500	5000	M
PHENYLHYDRAZINE HYDROCHLORIDE	00059-88-1	1	4	0.1	1	10	100	R
PHENYLMERCURIC ACETATE	00062-38-4	10	3,2,4,6,1	1	10	100	1000	:
PHENYLMERCURY ACETATE	00062-38-4	10	3,2,4,6,1	1	10	100	1000	

PHENYLSILATRANE	02097-19-0	1	4	0.1	1	10	100	D
N-PHENYLTHIOUREA	00103-85-5	10	1,2,3,4	1	10	100	1000	E
PHENYLTHIOUREA	00103-85-5	10	4,1,2,3	1	10	100	1000	P
PHENYLTRICHLOROSILANE	00098-13-5	1	1,6,4	0.1	1	10	100	A
PHOPHORAMIDIC ACID, (1-METHYLETHYL)-, ETHYL 3-ME..	22224-92-6	1	7,4,6,1	0.1	1	10	100	R
PHORATE	00298-02-2	5	2,3,6,4,1	0.5	5	50	500	T
PHOSACETIM	04104-14-7	1	6,4	0.1	1	10	100	M
PHOSALONE	02310-17-0	5	1	0.5	5	50	500	E
PHOSDRIN	07786-34-7	5	6,3,1,4	0.5	5	50	500	N

PHOSFOLAN	00947-02-4	1	4	0.1	1	10	100	T
PHOSGENE	00075-44-5	5	1,2,3,4,6,8	0.5	5	50	500	
PHOSMET	00732-11-6	1	4,1	0.1	1	10	100	O
PHOSPHAMIDON	13171-21-6	1	4,6,1	0.1	1	10	100	F
PHOSPHINE	07803-51-2	10	4,6,1,2,3,7	(See RCs of any listed constituents)				
PHOSPHONIC ACID, (2,2,2-TRICHLORO-1-HYDROXYETHYL)..	00052-68-6	10	7,1,3,8	1	10	100	1000	E
PHOSPHONIC ACID, DIBUTYL ESTER	01809-19-4	100	7,6	10	100	1000	10000	N
PHOSPHONIC DIAMIDE, P-(5-AMINO-3-PHENYL-1H-1,2,4..	01031-47-6	1	7,4	0.1	1	10	100	V
PHOSPHONIC DICHLORIDE, METHYL-	00676-97-1	1	7,4	0.1	1	10	100	I
PHOSPHONODITHIOIC ACID, ETHYL-, O-ETHYL S-PHENYL..	00944-22-9	1	7,4,6,1	0.1	1	10	100	R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PHOSPHONOFUORIDIC ACID, METHYL-, 1-METHYLETHYL ..	00107-44-8	1	4	0.1	1	10	100	
PHOSPHONOTHIOIC ACID, ETHYL-, O-ETHYL O-(2,4,5-T..	00327-98-0	1	7,4,1	0.1	1	10	100	
PHOSPHONOTHIOIC ACID, METHYL-, O-(4-NITROPHENYL...	02665-30-7	1	7,4	0.1	1	10	100	3
PHOSPHONOTHIOIC ACID, METHYL-, O-ETHYL-O-[4-(ME...	02703-13-1	1	7,4	0.1	1	10	100	1
PHOSPHONOTHIOIC ACID, METHYL-, S-(2-(DIISOPROPY...	50782-69-9	1	4	0.1	1	10	100	0
PHOSPHONOTHIOIC ACID, METHYL-, S-[2-[BIS(1-METHY..	50782-69-9	1	4,7	0.1	1	10	100	
PHOSPHONOTHIOIC ACID, PHENYL-, O-(4-BROMO-2,5-DI..	21609-90-5	1	7,4	0.1	1	10	100	C
PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(4-NITR..	02104-64-5	1	7,4,6,1	0.1	1	10	100	M
PHOSPHORAMIDIC ACID, (4-METHYL-1,3-DITHIOLAN-2-Y..	00950-10-7	1	7,4,1	0.1	1	10	100	R
PHOSPHORAMIDIC ACID, 1,3-DITHIETAN-2-YLIDENE-, D..	21548-32-3	1	7,4	0.1	1	10	100	:

PHOSPHORAMIDIC ACID, 1,3-DITHIOLAN-2-YLIDENE-	00947-02-4	1	7,4	0.1	1	10	100	
PHOSPHORAMIDIC ACID, METHYL-, 2-CHLORO-4-(1,1-DI..	00299-86-5	10	7,6	1	10	100	1000	D
PHOSPHORAMIDOTHIOIC ACID, (1-IMINOETHYL)-, O,O-B..	04104-14-7	1	7,4,6	0.1	1	10	100	E
PHOSPHORAMIDOTHIOIC ACID, O,S,-DIMETHYL ESTER	10265-92-6	1	7,4,6,1	0.1	1	10	100	P
PHOSPHORCHLORIDIC ACID, DIETHYL ESTER	00814-49-3	1	7,4	0.1	1	10	100	A
PHOSPHORIC ACID	07664-38-2	100	6,1,3,5,7,8	(See RCs of any listed constituents)				R
PHOSPHORIC ACID TRIBUTYL ESTER	00126-73-8	50	7,6	5	50	500	5000	T
PHOSPHORIC ACID, 1,2-DIBROMO-2,2-DICHLOROETHYL D..	00300-76-5	5	7,1,3,6	0.5	5	50	500	M
PHOSPHORIC ACID, 2,2-DICHLOROETHANENENYL DIMETHYL E.	00062-73-7	5	7,1,3,4,6,8	0.5	5	50	500	E

PHOSPHORIC ACID, 2-CHLORO-1-(2,4-DICHLOROPHENYL)..	00470-90-6	1	7,4,6,1	0.1	1	10	100	N
PHOSPHORIC ACID, 2-CHLORO-3-(DIETHYLAMINO)-1-ME...	13171-21-6	1	4,6,1	0.1	1	10	100	T
PHOSPHORIC ACID, 3-(DIMETHYLAMINO)-1-METHYL-3-...	00141-66-2	1	7,4,6,1	0.1	1	10	100	
PHOSPHORIC ACID, DIETHYL 4-NITROPHENYL ESTER	00311-45-5	10	7,1,2,3,6	1	10	100	1000	O
PHOSPHORIC ACID, DIETHYL P-NITROPHENYL ESTER	00311-45-5	10	2,3,1,6	1	10	100	1000	F
PHOSPHORIC ACID, DIMETHYL 4-(METHYLTHIO)PHENYL E..	03254-63-5	1	7,4	0.1	1	10	100	
PHOSPHORIC ACID, DISODIUM SALT	07558-79-4	100	7,1,3,6	(See RCs of any listed constituents)				E
PHOSPHORIC ACID, DISODIUM SALT, DODECAHYDRATE	10039-32-4	100	7,3,6	(See RCs of any listed constituents)				N
PHOSPHORIC ACID, DISODIUM SALT, HYDRATE	10140-65-5	100	7,3,6	(See RCs of any listed constituents)				V
PHOSPHORIC ACID, ISODECYL DIPHENYL ESTER	29761-21-5	50	1,7	5	50	500	5000	I
								R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PHOSPHORIC ACID, LEAD SALT	07446-27-7	5	2,3,6	(See RCs of any listed constituents)				
PHOSPHORIC ACID, LEAD(2+) SALT (2:3)	07446-27-7	5	7,2,3,6	(See RCs of any listed constituents)				
PHOSPHORIC ACID, TRIS(METHYLPHENYL) ESTER	01330-78-5	5	1,7	0.5	5	50	500	3
PHOSPHORIC ACID, TRISODIUM SALT	07601-54-9	100	7,1,3,6	(See RCs of any listed constituents)				1
PHOSPHORIC ACID, TRISODIUM SALT, DECAHYDRATE	10361-89-4	100	7,3,6	(See RCs of any listed constituents)				0
PHOSPHORIC ACID, TRISODIUM SALT, DODECAHYDRATE	10101-89-0	100	7,3,6	(See RCs of any listed constituents)				
PHOSPHORIC ANHYDRIDE	01314-56-3	1	1,4	(See RCs of any listed constituents)				C
PHOSPHOROCHLORIDOTHIOIC ACID, O,O-DIMETHYL ESTER	02524-03-0	1	7,1,4	0.1	1	10	100	M
PHOSPHORODIAMIDIC FLUORIDE, TETRAMETHYL-	00115-26-4	1	4	0.1	1	10	100	R

PHOSPHORODITHIOIC ACID, S[2-CHLORO-1-(1,3-DIHYDR...	10311-84-9	1	4,1	0.1	1	10	100	:
PHOSPHORODITHIOIC ACID, 0,0-DIETHYL S-[2-(ETHYLS..	02497-07-6	1	7,4,1	0.1	1	10	100	
PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-(ETHYLTHI...	00298-02-2	5	2,3,7,4,6,1	0.5	5	50	500	D
PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-METHYL ESTER	03288-58-2	100	2,3,7,1,6	10	100	1000	10000	E
PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-[(4-OXO-1,..	02642-71-9	1	7,4,1	0.1	1	10	100	P
PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-[2-(ETHYLT..	00298-04-4	1	7,1,3,4,6	0.1	1	10	100	A
PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-[2-[(1-ME...	02275-18-5	1	7,4,1	0.1	1	10	100	R
PHOSPHORODITHIOIC ACID, O,O-DIMETHYL S-[(4-OXO-1..	00086-50-0	1	7,1,3,4,6	0.1	1	10	100	T
PHOSPHORODITHIOIC ACID, O-ETHYL S,S-DIPHENYL ESTER	17109-49-8	1	1,7	0.1	1	10	100	M

PHOSPHORODITHIOIC ACID, O-ETHYL S,S-DIPROPYL ESTER	13194-48-4	1	4,6,1	0.1	1	10	100	E
PHOSPHORODITHIOIC ACID, S,S'-1,4-DIOXANE-2,3-DYL..	00078-34-2	1	7,4,6,1	0.1	1	10	100	N
PHOSPHORODITHIOIC ACID, S,S'-METHYLENE O,O,O',O'..	00563-12-2	5	7,1,3,4,6	0.5	5	50	500	T
PHOSPHORODITHIOIC ACID, S-(CHLOROMETHYL) O,O-DIE..	24934-91-6	1	7,4,1	0.1	1	10	100	
PHOSPHORODITHIOIC ACID, S-[(6-CHLORO-2-OXO-3(2H)-BENZA..	02310-17-0	5	1,7	0.5	5	50	500	O
PHOSPHORODITHIOIC ACID, S-[(1,1-DIMETHYLETHYL)...	13071-79-9	1	4,1	0.1	1	10	100	F
PHOSPHORODITHIOIC ACID, S-[(1,3-DIHYDRO-1,3-DIOX..	00732-11-6	1	7,4,1	0.1	1	10	100	
PHOSPHORODITHIOIC ACID, S-[(5-METHOXY-2-OXO-1,3,..	00950-37-8	1	7,4,6,1	0.1	1	10	100	E
PHOSPHORODITHIOIC ACID, S-[2-(ETHYLTHIO)ETHYL] O..	00640-15-3	100	7	10	100	1000	10000	N
PHOSPHORODITHIOIC ACID, S-[2-(FORMYLMETHYLAMINO)..	02540-82-1	1	7,4	0.1	1	10	100	V
PHOSPHORODITHIOIC ACID, S-[[2,5-DICHLOROPHENYL)..	03735-23-7	1	7,4	0.1	1	10	100	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations		
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
PHOSPHORODITHIOIC ACID, S-[(4-CHLOROPHENYL)THIO..	00786-19-6	1	7,4,1	0.1	1	10	100
PHOSPHORODITHIOIC ACID,O,O-DIMETHYL S-[2(METHYL...	00060-51-5	5	2,3,7,1,4	0.5	5	50	500
PHOSPHOROFUORIDIC ACID,BIS(1-METHYLETHYL) ESTER	00055-91-4	10	2,3,7,1,4	1	10	100	1000
PHOSPHOROTHIOC ACID, O,O-DIMETHYL-S-(2-METHYLTHI..	02587-90-8	1	4	0.1	1	10	100
PHOSPHOROTHIOIC ACID, O,O,-DIETHYL O-(3,5,6-TRIC..	02921-88-2	1	7,1,3,6	0.1	1	10	100
PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-(1-PHENYL-1H..	24017-47-8	1	7,4,1	0.1	1	10	100
PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-(4-NITROPHEN..	00056-38-2	5	7,1,2,3,4,6,8	0.5	5	50	500
PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-PYRAZINYL E...	00297-97-2	10	2,3,7,1,4	1	10	100	1000
PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-[2-(ETHYLTHI..	08065-48-3	1	7,4,6	0.1	1	10	100

PHOSPHOROTHIOIC ACID, O,O-DIMETHYL O-[3-METHYL...	00055-38-9	5	7,6,1	0.5	5	50	500
PHOSPHOROTHIOIC ACID, O,O-DIMETHYL O-(4-NITROPHE..	00298-00-0	10	7,1,2,3,4,6	1	10	100	1000
PHOSPHOROTHIOIC ACID, O,O-DIMETHYL O-[P-[(DIMET...	00052-85-7	50	2,3,1,6	5	50	500	5000
PHOSPHOROTHIOIC ACID, O,O-DIMETHYL-O-(3-METHYL-...	00122-14-5	1	4,1	0.1	1	10	100
PHOSPHOROTHIOIC ACID, O-(4-BROMO-2,5-DICHLOROPHENYL),	04824-78-6	10	1,7	1	10	100	1000
PHOSPHOROTHIOIC ACID, O-(3-CHLORO-4-METHYL-2-OXO..	00056-72-4	5	7,1,3,4	0.5	5	50	500
PHOSPHOROTHIOIC ACID, O-(4-CYANOPHENYL) O,O-DIME..	02636-26-2	1	7,4,1	0.1	1	10	100
PHOSPHOROTHIOIC ACID, O-O-DIETHYL O-[4-(METHYLS...	00115-90-2	1	4,6,1	0.1	1	10	100
PHOSPHOROTHIOIC ACID, O-(2,4-DICHLOROPHENYL) O,O-DIETH..	00097-17-7	1	1,7	0.1	1	10	100

PHOSPHOROTHIOIC ACID, O-[2,5-DICHLORO-4-(METHYLT...	21923-23-9	1	7,4,1	0.1	1	10	100
PHOSPHOROTHIOIC ACID, O-[2-(DIETHYLAMINO)-6-METH...	23505-41-1	1	7,4	0.1	1	10	100
PHOSPHOROTHIOIC ACID, O-[4-[(DIMETHYLAMINO)SULFO..	00052-85-7	50	7,1,2,3,6	5	50	500	5000
PHOSPHOROTHIOIC ACID, 0,0'-(THIODI-4,1-PHENYLENE...	03383-96-8	10	7,6,1	1	10	100	1000
PHOSPHOROTHIOIC ACID, S-[(5-METHOXY-4-OXO-4H-PYR..	02778-04-3	1	7,4	0.1	1	10	100
PHOSPHOROTHIOIC ACID, S-[2-(DIETHYLAMINO)ETHYL] ..	03734-97-2	1	7,4	0.1	1	10	100
PHOSPHOROTHIOIC ACID, S-[2-(ETHYLTHIO)ETHYL] O,O..	00919-86-8	1	7,4	0.1	1	10	100
PHOSPHOROTHIOIC ACID,O,O-DIETHYL O-(P-NITROPHENY..	00056-38-2	5	2,3,1,4,6,8	0.5	5	50	500
PHOSPHOROUS ACID, TRIMETHYL ESTER	00121-45-9	100	7,6	10	100	1000	10000
PHOSPHOROUS TRICHLORIDE	07719-12-2	50	4,6,1,3,7	(See RCs of any listed constituents)			

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations				
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PHOSPHORUS	07723-14-0	1	4,3,7,1,6,8	(Not Applicable)				
PHOSPHORUS BROMIDE	07789-60-8	10	1	(See RCs of any listed constituents)				
PHOSPHORUS CHLORIDE	07719-12-2	50	1,3,4,6	(See RCs of any listed constituents)				3
PHOSPHORUS OXIDE	01314-56-3	1	1,4	(See RCs of any listed constituents)				1
PHOSPHORUS OXYBROMIDE	07789-59-5	10	1	(See RCs of any listed constituents)				0
PHOSPHORUS OXYCHLORIDE	10025-87-3	50	4,3,6,1	(See RCs of any listed constituents)				
PHOSPHORUS PENTACHLORIDE	10026-13-8	1	4,6,1	(See RCs of any listed constituents)				C
PHOSPHORUS PENTASULFIDE	01314-80-3	10	6,1,3	(See RCs of any listed constituents)				M
PHOSPHORUS PENTOXIDE	01314-56-3	1	1,4	(See RCs of any listed constituents)				R

PHOSPHORUS SESQUISULFIDE	01314-85-8	10	6,1	(See RCs of any listed constituents)				:
PHOSPHORUS SULFIDE	01314-80-3	10	6,3,1	(See RCs of any listed constituents)				
PHOSPHORYL CHLORIDE	10025-87-3	50	6,1,3,4	(See RCs of any listed constituents)				D
PHOSPHOTHIOIC ACID, S-[2-(DIETHYLAMINO)EHTYL) O,..	00078-53-5	1	7,4	0.1	1	10	100	E
PHOSPHRIC ACID, DIMETHYL 1-METHYL-3-(METHYLAMINO)..	06923-22-4	1	7,4,6,1	0.1	1	10	100	P
PHOSPORAMIDOCYANIDIC ACID, DIMETHYL-, ETHYL ESTER	00077-81-6	1	7,4	0.1	1	10	100	A
PHTHALIC ANHYDRIDE	00085-44-9	100	1,2,3,5,6,8	10	100	1000	10000	R
PHYSOSTIGMINE	00057-47-6	1	4	0.1	1	10	100	T
PHYSOSTIGMINE SALICYLATE (1:1)	00057-64-7	1	4	(See RCs of any listed constituents)				M
PICLORAM	01918-02-1	10	6	1	10	100	1000	E

4-PICOLINE	00108-89-4	10	7,6	1	10	100	1000	N
2-PICOLINE	00109-06-8	100	1,2,3,6,8	10	100	1000	10000	T
PICRATE OF AMMONIUM	00131-74-8	5	1,3,6	(See RCs of any listed constituents)				
PICRIC ACID	00088-89-1	10	1,6,8	1	10	100	1000	O
PICROTOXIN	00124-87-8	1	4	0.1	1	10	100	F
alpha-PINENE	00080-56-8	10	1,6	1	10	100	1000	
PIPERAZINE	00110-85-0	10	6	1	10	100	1000	E
1-PIPERAZINEETHANAMINE	00140-31-8	100	7,1,6	10	100	1000	10000	N
PIPERIDINE	00110-89-4	1	6,4	0.1	1	10	100	V
PIPERIDINE, 1-NITROSO-	00100-75-4	5	2,3,6,8	0.5	5	50	500	I
								R

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		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
2,6-PIPERIDINEDIONE, 4-[2-(3,5-DIMETHYL-2-OXOCYLCOHE..	00066-81-9	1	7,4,6	0.1	1	10	100	
PIPERYLENE	00504-60-9	10	1,3,6	1	10	100	1000	
PIRIMICARB	23103-98-2	100	1	10	100	1000	10000	3
PIRIMIFOS-ETHYL	23505-41-1	1	4	0.1	1	10	100	1
PLATINATE(2-), HEXACHLORO-, DIAMMONIUM, (OC-6-11)	16919-58-7	100	7	(See RCs of any listed constituents)				0
PLATINOUS CHLORIDE	10025-65-7	50		(See RCs of any listed constituents)				
PLATINUM CHLORIDE II	10025-65-7	50	7	(See RCs of any listed constituents)				C
PLATINUM CHLORIDE IV	13454-96-1	100	7	(See RCs of any listed constituents)				M
PLATINUM TETRACHLORIDE	13454-96-1	100		(See RCs of any listed constituents)				R

PLICTRAN	13121-70-5	1	6,1	0.1	1	10	100	:
PLUMBANE, TETRAETHYL-	00078-00-2	5	2,3,7,1,4,6	0.5	5	50	500	
PLUMBANE, TETRAMETHYL-	00075-74-1	1	7,4,6,1	0.1	1	10	100	D
POLYCHLORINATED BIPHENYL, N.O.S.	1336-36-3	1	2,1,3,5,6,8	0.0005	0.005	1	4	E
POLYCHLORINATED BIPHENYLS (PCBS)	1336-36-3	1	6,1,3,5,8,2	0.0005	0.005	1	4	P
POLYCHLORINATED BIPHENYLS (PCBS)	11096-82-5	1	3,6	0.0005	0.005	1	4	A
POLYCHLORINATED BIPHENYLS (PCBS)	11097-69-1	1	3,6	0.0005	0.005	1	4	R
POLYCHLORINATED BIPHENYLS (PCBS)	11104-28-2	1	3,6	0.0005	0.005	1	4	T
POLYCHLORINATED BIPHENYLS (PCBS)	11141-16-5	1	3,6	0.0005	0.005	1	4	M

POLYCHLORINATED BIPHENYLS (PCBS)	12672-29-6	1	3,6	0.0005	0.005	1	4	E
POLYCHLORINATED BIPHENYLS (PCBS)	12674-11-2	1	3,6	0.0005	0.005	1	4	N
POLYCHLORINATED BIPHENYLS (PCBS)	53469-21-9	1	3,6	0.0005	0.005	1	4	T
POLY[OXY(METHYL-1,2-ETHANEDIYL)], .ALPHA.-[(2,4-..	53467-11-1	10	7,3,6	1	10	100	1000	
POTASSIUM	07440-09-7	10	6,7	(Not Applicable)				O
POTASSIUM ARSENATE	07784-41-0	1	1,3,6	(See RCs of any listed constituents)				F
POTASSIUM ARSENITE	10124-50-2	1	4,1,3	(See RCs of any listed constituents)				
POTASSIUM BICHROMATE	07778-50-9	5	3,1,6	(See RCs of any listed constituents)				E
POTASSIUM BROMATE	07758-01-2	100	6,1	(See RCs of any listed constituents)				N
POTASSIUM CHROMATE	07789-00-6	5	1,3,6	(See RCs of any listed constituents)				V
POTASSIUM CYANIDE	00151-50-8	5	2,3,7,6,4,1,3	(See RCs of any listed constituents)				I
								R

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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
POTASSIUM DICHLORO-S-TRIAZINETRIONE	02244-21-5	10	6,1	1	10	100	1000	
POTASSIUM DICHROMATE	07778-50-9	5	6,1,3	(See RCs of any listed constituents)				
POTASSIUM HYDRATE	01310-58-3	50	1,3,6	(See RCs of any listed constituents)				3
POTASSIUM HYDROXIDE	01310-58-3	50	6,1,3	(See RCs of any listed constituents)				1
POTASSIUM PERCHLORATE	07778-74-7	10	6,10,002	1	0.1	6		0
POTASSIUM PERMANGANATE	07722-64-7	10	6,1,3	(See RCs of any listed constituents)				
POTASSIUM PEROXIDE	17014-71-0	10	6,1	(See RCs of any listed constituents)				C
POTASSIUM SILVER CYANIDE	00506-61-6	1	1,2,3,4	(See RCs of any listed constituents)				M
POTASSIUM SULFIDE	01312-73-8	10	6,7,1	(See RCs of any listed constituents)				R
PREGN-4-ENE-3,20-DIONE,17-(ACETYLOXY)-6-METHYL-,...	00071-58-9	1	7	0.1	1	10	100	:

PREGNA-4,6-DIENE-3,20-DIONE,17-(ACETYLOXY)-6-...	00595-33-5	1	7	0.1	1	10	100	
PREGNA-4,6-DIENE-3,20-DIONE,17-(ACETYLOXY)-6-CHL...	00302-22-7	1	7,6	0.1	1	10	100	D
PROMECARB	02631-37-0	1	4,1	0.1	1	10	100	E
PROMETON	01610-18-0	50	5	5	50	500	5000	P
PRONAMIDE	23950-58-5	100	6,1,2,3,8	10	100	1000	10000	A
PROPANAL	00123-38-6	10	6,1,8	1	10	100	1000	R
1-PROPANAL, 2,3-EPOXY-	00765-34-4	5	3,2,6	0.5	5	50	500	T
PROPANAL, 2-METHYL-2-(METHYLTHIO)-,O-[(METHYLAM...	00116-06-3	1	2,3,1,4,6	0.1	1	10	100	M
2-PROPANAMINE	00075-31-0	10	7,1,6	1	10	100	1000	E

1-PROPANAMINE	00107-10-8	100	2,3,1,6	10	100	1000	10000	N
2-PROPANAMINE, 2-METHYL-	00075-64-9	50	7,3,6	5	50	500	5000	T
1-PROPANAMINE, 2-METHYL-	00078-81-9	50	7,1,3,6	5	50	500	5000	
1-PROPANAMINE, 2-METHYL-N-(2-METHYLPROPYL)-	00110-96-3	10	7,6	1	10	100	1000	O
1-PROPANAMINE, N,N-DIPROPYL-	00102-69-2	50	7,6	5	50	500	5000	F
2-PROPANAMINE, N-(1-METHYLETHYL)-	00108-18-9	10	7,1,6	1	10	100	1000	
1-PROPANAMINE, N-NITROSO-N-PROPYL-	00621-64-7	5	7,2,3,6,8	0.5	5	50	500	E
1-PROPANAMINE, N-PROPYL-	00142-84-7	100	3,7,6	10	100	1000	10000	N
PROPANE	00074-98-6	10	1,6,7	1	10	100	1000	V
1,3-PROPANE SULTONE	01120-71-4	5	6,2,3,8	0.5	5	50	500	I
PROPANE SULTONE	01120-71-4	5	6,8,2,3	0.5	5	50	500	R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PROPANE, 1,1'-OXYBIS-	00111-43-3	10	7,6	1	10	100	1000	
PROPANE, 1,1-DICHLORO	00078-99-9	50	7,1,3,6	5	50	500	5000	
PROPANE, 1,2,3-TRICHLORO-	00096-18-4	10	2,7,6	1	10	100	1000	3
PROPANE, 1,2-DIBROMO-3-CHLORO-	00096-12-8	1	2,3,7,6,8	0.1	1	10	100	1
PROPANE, 1,2-DICHLORO-	78-87-5	50	7,1,2,3,5,6,8	0.003	0.003	0.1	0.1	0
PROPANE, 1,3-DICHLORO-	00142-28-9	50	7,1,3,6	5	50	500	5000	
PROPANE, 1-CHLORO-	00540-54-5	10	7,1,6	1	10	100	1000	C
PROPANE, 1-CHLORO-1-NITRO-	00600-25-9	10	7,6	1	10	100	1000	M
PROPANE, 1-NITRO-	00108-03-2	10	7,1,6	1	10	100	1000	R

PROPANE, 2,2'-OXYBIS(2-CHLORO-	108-60-1	50	1,2,3,6,8	0.03	0.1	0.7	0.7	:
PROPANE, 2,2'-OXYBIS(2-CHLORO-	39638-32-9	50	1,2,3,6,8	0.03	0.1	0.7	0.7	
PROPANE, 2,2'-OXYBIS-	00108-20-3	10	7,1,6	1	10	100	1000	D
PROPANE, 2,2-DIMETHYL-	00463-82-1	10	7,6	1	10	100	1000	E
PROPANE, 2-CHLORO-	00075-29-6	10	7,6,1	1	10	100	1000	P
PROPANE, 2-METHYL-	00075-28-5	10	7,1,6	1	10	100	1000	A
PROPANE, 2-NITRO-	00079-46-9	5	2,3,7,6,8	0.5	5	50	500	R
PROPANE, DICHLORO-	26638-19-7	50	7,2,3,6	0.005	0.009	0.1	0.2	T
PROPANE, DICHLORO-, N.O.S.	26638-19-7	50	2,3,6	0.005	0.009	0.1	0.2	M
1,3-PROPANEDIAMINE, N,N-DIMETHYL-	00109-55-7	10	7,6	1	10	100	1000	E

PROPANEDINITRILE	00109-77-3	50	2,3,1,4,8	5	50	500	5000	N
PROPANEDIOIC ACID, DITHALLIUM SALT	02757-18-8	1	7,4	(See RCs of any listed constituents)				T
PROPANENITRILE, 2-HYDROXY	00078-97-7	1	7,4,6	0.1	1	10	100	
PROPANENITRILE	00107-12-0	5	2,3,1,4,6	0.5	5	50	500	O
PROPANENITRILE, 2-HYDROXY-2-METHYL-	00075-86-5	5	2,3,7,1,4,6	0.5	5	50	500	F
PROPANENITRILE, 2-METHYL-	00078-82-0	1	7,4,6	0.1	1	10	100	
PROPANENITRILE, 3-CHLORO-	00542-76-7	50	3,2,7,1,4	5	50	500	5000	E
PROPANENITRILE, 3-HYDROXY-	00109-78-4	10	7,6	1	10	100	1000	N
2-PROPANENOIC ACID, METHYL ESTER	00096-33-3	10	7,1,5,6,8	1	10	100	1000	V
PROPANETHIOL, 2-METHYL-	00075-66-1	10	7,6	1	10	100	1000	I
1,2,3-PROPANETRICARBOXYLIC ACID, 2-HYDROXY-, DIAMMONIU..	03012-65-5	100	7,1,3,6	10	100	1000	10000	R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
1,2,3-PROPANETRICARBOXYLIC ACID, 2-HYDROXY-AMMONIUM I...	01185-57-5	50	3,1,6	5	50	500	5000	
1,2,3-PROPANETRIOL, TRINITRATE	00055-63-0	5	2,3,7,1,6,8	0.5	5	50	500	
PROPANOIC ACID	00079-09-4	100	7,1,3,6	10	100	1000	10000	3
PROPANOIC ACID, 2,2-DICHLORO-	00075-99-0	100	7,1,3,6	10	100	1000	10000	1
PROPANOIC ACID, 2-(2,4,5-TRICHLOROPHENOXY)-	00093-72-1	10	7,1,2,3,6	1	10	100	1000	0
PROPANOIC ACID, 2-(2,4,5-TRICHLOROPHENOXY)-, ISO..	32534-95-5	10	7,3,6	1	10	100	1000	
PROPANOIC ACID, 2-HYDROXY-, ETHYL ESTER	00097-64-3	10	7,1,6	1	10	100	1000	C
PROPANOIC ACID, ANHYDRIDE	00123-62-6	100	1,3,6	10	100	1000	10000	M
2-PROPANOIC ACID, BUTYL ESTER	00141-32-2	100	7,6,8	10	100	1000	10000	R

PROPANOIC ACID, ETHYL ESTER	00105-37-3	10	7,1,6	1	10	100	1000	:
PROPANOIC ACID, METHYL ESTER	00554-12-1	10	7,1,6	1	10	100	1000	
1-PROPANOL	00071-23-8	10	7,1,5,6	1	10	100	1000	D
2-PROPANOL, 1-CHLORO-	00127-00-4	100	7,6	10	100	1000	10000	E
2-PROPANOL, 1-METHOXY-	00107-98-2	10	7,6	1	10	100	1000	P
1-PROPANOL, 2,2-DIMETHYL-	00075-84-3	10	7,6	1	10	100	1000	A
1-PROPANOL, 2,3-DIBROMO-, PHOSPHATE	00126-72-7	5	2,3,6,8	0.1	1	10	100	R
1-PROPANOL, 2-AMINO-2-METHYL-	00124-68-5	100	7,6	10	100	1000	10000	T
1-PROPANOL, 2-CHLORO-	00078-89-7	100	7,6	10	100	1000	10000	M

2-PROPANOL, 2-METHYL-	00075-65-0	10	7,1,6,8	1	10	100	1000	E
1-PROPANOL, 2-METHYL-	00078-83-1	100	2,3,7,1,5,6	10	100	1000	10000	N
PROPANOL, 2-METHYL-	00078-84-2	10	7,6,8	1	10	100	1000	T
1-PROPANOL-2,3-EPOXY	00765-34-4	5	2,3,6	0.5	5	50	500	
2-PROPANONE	67-64-1	100	1,3,5,6,8	6.3	50	6	50	O
2-PROPANONE, 1,3-DICHLORO-	00534-07-6	1	7,4	0.0004	0.01	10	0.4	F
2-PROPANONE, 1-BROMO-	00598-31-2	50	2,3,7,1,6	5	50	500	5000	
PROPARGITE	02312-35-8	5	1,3,6	0.5	5	50	500	E
PROPARGYL ALCOHOL	00107-19-7	50	1,2,3,6	5	50	500	5000	N
PROPARGYL BROMIDE	00106-96-7	1	6,4	0.1	1	10	100	V
2-PROPEN-1-AMINE	00107-11-9	1	4,6	0.1	1	10	100	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
2-PROPEN-1-OL	00107-18-6	10	2,3,1,4,6,8	1	10	100	1000	
1-PROPEN-2-01, ACETATE	00108-22-5	10	7,6	1	10	100	1000	
2-PROPENAL	00107-02-8	1	2,3,1,4,6,8	0.1	1	10	100	3
PROPENAL, 2-METHYL-	00078-85-3	10	7,6	1	10	100	1000	1
2-PROPENAMIDE	00079-06-1	100	2,3,7,1,4,6,8	10	100	1000	10000	0
1-PROPENE	00115-07-1	10	8,1,6	1	10	100	1000	
1-PROPENE, 1,1,2,3,3,3-HEXACHLORO-	01888-71-7	50	2,3,7,1,6	5	50	500	5000	C
1-PROPENE, 1,3-, DICHLORO-, (E)-	10061-02-6	10	7,6	0.0005	0.005	0.01	0.1	M
1-PROPENE, 1,3-DICHLORO-	542-75-6	10	6,3,2,1,8	0.0004	0.01	0.01	0.4	R

1-PROPENE, 1,3-DICHLORO-, (Z)-	10061-01-5	10	7,6	0.0005	0.005	0.01	0.1	:
1-PROPENE, 1,3-DICHLORO-, MIXT. WITH1,2-DICHLORORO..	08003-19-8	10	7,3,6	(See RCs of any listed constituents)				
1-PROPENE, 1-CHLORO-	00590-21-6	10	7,6,1	1	10	100	1000	D
1-PROPENE, 2,3-DICHLORO-	00078-88-6	10	7,3,8	1	10	100	1000	E
1-PROPENE, 2-CHLORO-	00557-98-2	10	7,1,6	1	10	100	1000	P
PROPENE, 2-CHLORO-2-NITRO	00594-71-8	10	7,6	1	10	100	1000	A
1-PROPENE, 2-METHYL-	00115-11-7	10	7,1,6	1	10	100	1000	R
1-PROPENE, 3-BROMO-	00106-95-6	10	7,1,6	1	10	100	1000	T
1-PROPENE, 3-CHLORO-	00107-05-1	50	1,2,3,6,8	5	50	500	5000	M

1-PROPENE, 3-CHLORO-2-METHYL-	00563-47-3	10	7,6	1	10	100	1000	E
1-PROPENE, 3-ISOTHIOCYANATO	00057-06-7	10	7,6	1	10	100	1000	N
1-PROPENE, DICHLORO-	26952-23-8	10	7,2,3	0.0005	0.005	0.01	0.1	T
PROPENE, DICHLORO-, N.O.S.	26952-23-8	10	2,3	0.0005	0.005	0.01	0.1	
1-PROPENE,1-CHLORO-2-METHYL-	00513-37-1	1	7	0.1	1	10	100	O
2-PROPENE-1,1-DIOL, 2-METHYL-, DIACETATE	10476-95-6	1	7,4	0.1	1	10	100	F
2-PROPENENITRILE	00107-13-1	10	2,3,1,4,5,6,8	1	10	100	1000	
2-PROPENENITRILE, 2-METHYL-	00126-98-7	50	2,3,1,4,6,8	5	50	500	5000	E
2-PROPENOIC ACID	00079-10-7	100	3,7,1,6,8	10	100	1000	10000	N
PROPENOIC ACID, 2-CHLORO-, METHYL ESTER	00080-63-7	1	7,4	0.1	1	10	100	V
2-PROPENOIC ACID, 2-ETHYHEXYL ESTER	00103-11-7	10	7,6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
2-PROPENOIC ACID, 2-ETHYLBUTYL ESTER	03953-10-4	10	7,6	1	10	100	1000	
2-PROPENOIC ACID, 2-HYDROXYETHYL ESTER	00818-61-1	10	7,6	1	10	100	1000	
PROPENOIC ACID, 2-METHYL	00079-41-4	10	7,6	1	10	100	1000	3
2-PROPENOIC ACID, 2-METHYL-, 2,-[(1,1-DIMETHYLETHY..	03775-90-4	10	7,6	1	10	100	1000	1
PROPENOIC ACID, 2-METHYL-, 2-ISOCYANATOETHYL ESTER	30674-80-7	1	7,4	0.1	1	10	100	0
2-PROPENOIC ACID, 2-METHYL-, ANHYDRIDE	00760-93-0	1	7,4	0.1	1	10	100	
2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER	00097-63-2	50	2,3,7,1,6	5	50	500	5000	C
2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER	00080-62-6	50	2,3,7,1,5,6,8	5	50	500	5000	M
2-PROPENOIC ACID, 2-METHYLPROPYL ESTER	00106-63-8	10	7,6	1	10	100	1000	R

2-PROPENOIC ACID, DECYL ESTER	02156-96-9	100	7,6,1	10	100	1000	10000	:
2-PROPENOIC ACID, ETHYL ESTER	00140-88-5	50	7,3,1,5,6,8	5	50	500	5000	
2-PROPENOYL CHLORIDE	00814-68-6	1	7,4	0.1	1	10	100	D
2-PROPENOYL CHLORIDE, 2-METHYL-	00920-46-7	1	7,4	0.1	1	10	100	E
beta-PROPIOLACTONE	00057-57-8	1	6,8,4	0.1	1	10	100	P
3-PROPIOLACTONE	00057-57-8	1	6,4,8	0.1	1	10	100	A
PROPIONALDEHYDE	00123-38-6	10	1,8,6	1	10	100	1000	R
PROPIONIC ACID	00079-09-4	100	1,3,6	10	100	1000	10000	T
PROPIONIC ACID, 2-(2,4,5-TRICHLOROPHENOXY)-	00093-72-1	10	2,3,1,6	1	10	100	1000	M

PROPIONIC ANHYDRIDE	00123-62-6	100	1,3,6	10	100	1000	10000	E
PROPIONIC NITRILE	00107-12-0	5	6,1,2,3,4	0.5	5	50	500	N
PROPIONITRILE	00107-12-0	5	1,4,2,3,6	0.5	5	50	500	T
PROPIONITRILE, 3-CHLORO-	00542-76-7	50	4,1,2,3	5	50	500	5000	
PROPOIPHENONE, 4'-AMINO-	00070-69-9	1	4	0.1	1	10	100	O
PROPOXUR	00114-26-1	1	7,6,8,1	0.1	1	10	100	F
PROPRIOLACTONE, BETA-	00057-57-8	1	4,6,8	0.1	1	10	100	
n-PROPYL ACETATE	00109-60-4	10	6,1	1	10	100	1000	E
PROPYL ACETATE	00109-60-4	10	1,6	1	10	100	1000	N
PROPYL ALCOHOL	00071-23-8	10	1,5,6	1	10	100	1000	V
PROPYL CHLORIDE	00540-54-5	10	1,6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PROPYL CHLOROFORMATE	00109-61-5	1	4	0.1	1	10	100	
PROPYL CHLOROTHIOFORMATE	13889-92-4	100	6	10	100	1000	10000	
n-PROPYL ETHER	00111-43-3	10	6	1	10	100	1000	3
PROPYL MERCAPTAN	00107-03-9	10	1,6	1	10	100	1000	1
PROPYL TRICHLOROSILANE	00141-57-1	10	1,6	1	10	100	1000	0
PROPYLAMINE	00107-10-8	100	1,6,2,3	10	100	1000	10000	
PROPYLBENZENE	00103-65-1	10	6	1	10	100	1000	
PROPYLENE	00115-07-1	10	1,8,6	1	10	100	1000	C
PROPYLENE DICHLORIDE	78-87-5	50	1,2,3,6,5,8	0.003	0.003	0.1	0.1	M
PROPYLENE GLYCOL METHYL ETHER	00107-98-2	10	6	1	10	100	1000	R

PROPYLENE GLYCOL MONOMETHYL ETHER	00107-98-2	10	6	1	10	100	1000	:
PROPYLENE IMINE	00075-55-8	1	6,1,2,3,4,8	0.1	1	10	100	D
PROPYLENE OXIDE	00075-56-9	10	1,3,4,5,6,8	1	10	100	1000	E
PROPYLENEIMINE	00075-55-8	1	1,4,8,2,3,6	0.1	1	10	100	P
1,2-PROPYLENIMINE	00075-55-8	1	2,3,1,4,6,8	0.1	1	10	100	A
PROPYLTRICHLOROSILANE	00141-57-1	10	6,1	1	10	100	1000	R
2-PROPYN-1-OL	00107-19-7	50	2,3,1,6	5	50	500	5000	T
PROPYNE	00074-99-7	10	6	1	10	100	1000	M
1-PROPYNE	00074-99-7	10	7,6	1	10	100	1000	E
1-PROPYNE, 3-BROMO-	00106-96-7	1	4,6	0.1	1	10	100	N
PROTHOATE	02275-18-5	1	4,1	0.1	1	10	100	T

PRUSSIC ACID	00074-90-8	5	1,2,3,4,6,8	0.5	5	50	500	
2,4(1H,3H)-PRYIMIDINEDIONE, 5-[BIS(2-CHLOROETHYL)AMINO]-	00066-75-1	5	7,2,3,6	0.5	5	50	500	O
PSEUDOCUMENE	00095-63-6	100	8,6	10	100	1000	10000	F
2H-PYRAN, TETRAHYDRO-	00142-68-7	50	7,6	5	50	500	5000	
PYRENE	129-00-0	100	3,4	0.02	0.02	1000	3000	E
PYRETHRIN 1	00121-21-1	1	3,6	0.1	1	10	100	N
PYRETHRIN 2	00121-29-9	1	1,3,6	0.1	1	10	100	V
PYRETHRINS	08003-34-7	1	1,3,6	0.1	1	10	100	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PYRETHRINS AND PYRETHROIDS	08003-34-7	1	7,1,3,6	0.1	1	10	100	
PYRETHROIDS	08003-34-7	1	1,3,6	0.1	1	10	100	
PYRETHRUM	08003-34-7	1	6,1,3	0.1	1	10	100	3
3,6-PYRIDAZINEDIONE, 1,2-DIHYDRO-	00123-33-1	100	1,2,3,6	10	100	1000	10000	1
4-PYRIDINAMINE	00504-24-5	50	3,7,4,2	5	50	500	5000	0
4-PYRIDINAMINE	02763-96-4	50	2,1,3,4	5	50	500	5000	
PYRIDINE	00110-86-1	50	1,2,3,8,6	5	50	500	5000	C
PYRIDINE, (S)-3-(1-METHYL-2-PYRROLIDINYL)-,AND S..	00054-11-5	10	2,3,1,4,6	1	10	100	1000	M
PYRIDINE, 2-METHYL-5-VINYL	00140-76-1	1	4	0.1	1	10	100	R

PYRIDINE, 2-[(2-(DIMETHYLAMINO)ETHYL)-2-THENYLA...	00091-80-5	100	2,3,6	10	100	1000	10000	:
PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-, (S)-	00054-11-5	10	7,1,2,3,4,6	1	10	100	1000	
PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-, (S)-, SU..	00065-30-5	10	7,1,4	(See RCs of any listed constituents)				D
PYRIDINE, 4-AMINO-	00504-24-5	50	4,3,2	5	50	500	5000	E
PYRIDINE, 4-METHYL-	00108-89-4	10	7,6	1	10	100	1000	P
PYRIDINE, 4-NITRO-, 1-OXIDE	01124-33-0	1	7,4	0.1	1	10	100	A
PYRIDINE, 5-ETHENYL-2-METHYL	00140-76-1	1	7,4	0.1	1	10	100	R
PYRIDINE, 5-ETHYL-2-METHYL-	00104-90-5	10	7,1,6	1	10	100	1000	T
PYRIDINE, HEXAHYDRO-N-NITROSO-	00100-75-4	5	2,3,6,8	0.5	5	50	500	M

PYRIDINE,2-METHYL-	00109-06-8	100	2,3,1,6,8	10	100	1000	10000	E
2-PYRIDINECARBOXYLIC ACID, 4-AMINO-3,5,6-TRICHOLOR..	01918-02-1	10	7,6	1	10	100	1000	N
4-PYRIMIDINAMINE, 2-CHLORO-N,N,6-TRIMETHYL-	00535-89-7	1	7,4	0.1	1	10	100	T
2,4(1H,3H)-PYRIMIDINEDIONE, 5-BROMO-6-METHYL-3-(1-METHYLPRO..	00314-40-9	50	7,6	5	50	500	5000	
2,4(1H,3H)-PYRIMIDINEDIONE, 5-FLUORO-	00051-21-8	1	7,4	0.1	1	10	100	O
4(1H)-PYRIMIDINONE, 2,3-DIHYDRO-6-METHYL-2-THIO...	00056-04-2	5	2,3,7,6	0.5	5	50	500	F
PYRIMINIL	53558-25-1	1	4	0.1	1	10	100	
PYROPHOSPHORIC ACID, TETRAETHYL ESTER	00107-49-3	5	2,3,1,4,6	0.5	5	50	500	E
PYROSULFURYL CHLORIDE	07791-27-7	10	1	(See RCs of any listed constituents)				N
PYRROLE	00109-97-7	100	6	10	100	1000	10000	V
1H-PYRROLE	00109-97-7	100	7,6	10	100	1000	10000	I
								R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
PYRROLE, TETRAHYDRO-N-NITROSO-	00930-55-2	1	2,3,6	0.1	1	10	100	
PYRROLE[2,3-B]INDOLE-5-OL, 1,2,3,3a,8,8a-HEXAHYD..	00057-47-6	1	7,4	0.1	1	10	100	
PYRROLIDINE	00123-75-1	10	1,7,6	1	10	100	1000	3
PYRROLIDINE, 1-NITROSO-	00930-55-2	1	7,2,3,6	0.1	1	10	100	1
QUINOLINE	00091-22-5	100	1,3,6,7,8	10	100	1000	10000	0
QUINONE	00106-51-4	5	8,6,2,3	0.5	5	50	500	
QUINTOZENE	00082-68-8	10	8,2,3,6,3	1	10	100	1000	
RDX	00121-82-4	10	6 0.001	50	1	90		C
RESERPINE	00050-55-5	100	1,2,3,6	10	100	1000	10000	M
RESORCINOL	00108-46-3	100	1,2,3,5,6	10	100	1000	10000	R

RHODIUM TRICHLORIDE	10049-07-7	1		(See RCs of any listed constituents)				
RONNEL	00299-84-3	5	6	0.5	5	50	500	D
ROTENONE (COMMERCIAL)	00083-79-4	1	7,6,1	0.1	1	10	100	E
RUBBER SOLVENT (NAPHTHA)	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				P
SACCHARIN	00081-07-2	10	6,8,2,3	1	10	100	1000	A
SACCHARIN AND SALTS	00081-07-2	10	2,3,6,8	1	10	100	1000	R
SAFROLE	00094-59-7	10	3,6,8,2	1	10	100	1000	T
SALCOMINE	14167-18-1	1	4	0.1	1	10	100	M
SARIN 00107-44-8	1	4	0.1	1	10	100		E

9,10-SECOERGOSTA-5,7,10(19),22-TETRAEN-3-OL, (3.BETA...	00050-14-6	1	7,4,6	0.1	1	10	100	N
SELENIC ACID, SODIUM SALT	13410-01-0	1	4	(See RCs of any listed constituents)				T
SELENINYL CHLORIDE	07791-23-3	1	7,4	(See RCs of any listed constituents)				
SELENIOUS ACID	07783-00-8	5	4,3,2	(See RCs of any listed constituents)				O
SELENIOUS ACID (H2SeO3)	07783-00-8	5	7,2,3,4	(See RCs of any listed constituents)				F
SELENIOUS ACID (H2SeO3), MONOSODIUM SALT	07782-82-3	10	7,3,6	(See RCs of any listed constituents)				
SELENIOUS ACID, DISODIUM SALT	10102-18-8	10	7,1,3,4	(See RCs of any listed constituents)				E
SELENIOUS ACID, DITHALLIUM(1+) SALT	12039-52-0	10	3	(See RCs of any listed constituents)				N
SELENIUM	7782-49-2	10	3,6,5,7,2,8	0.05	0.05	400	800	V
SELENIUM COMPOUNDS, NOS		10	3	(See RCs of any listed constituents)				I
SELENIUM DIOXIDE	07446-08-4	5	3,1,6	(See RCs of any listed constituents)				R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations				
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
SELENIUM DIOXIDE	07783-00-8	5	2,3,4	(See RCs of any listed constituents)				
SELENIUM DISULFIDE	07488-56-4	5	3,5,6	(See RCs of any listed constituents)				
SELENIUM OXIDE	07446-08-4	5	1,3,6	(See RCs of any listed constituents)				3
SELENIUM OXIDE (SeO2)	07446-08-4	5	7,1,3,6	(See RCs of any listed constituents)				1
SELENIUM OXYCHLORIDE	07791-23-3	1	4	(See RCs of any listed constituents)				0
SELENIUM SULFIDE	07488-56-4	5	5,3,6	(See RCs of any listed constituents)				
SELENIUM SULFIDE (SeS2)	07488-56-4	5	7,3,5,6	(See RCs of any listed constituents)				C
SELENOUREA	00630-10-4	50	2,3,7,6	5	50	500	5000	M
SEMICARBAZIDE HYDROCHLORIDE	00563-41-7	1	4	0.1	1	10	100	R

L-SERINE, DIAZOACETATE (ESTER)	00115-02-6	1	2,3,6	0.1	1	10	100	:
SEVIN 00063-25-2	10	6,1,3,8	1	10	100	1000		
SILANE, (4-AMONOBUTYL)DIETHOXYMETHYL-	03037-72-7	1	4	0.1	1	10	100	D
SILANE, BURLTRICHLORO-	07521-80-4	10	7,6	1	10	100	1000	E
SILANE, CHLOROTRIMETHYL-	00075-77-4	1	7,1,4,6	0.1	1	10	100	P
SILANE, DICHLORODIMETHYL-	00075-78-5	1	7,1,4,6	0.1	1	10	100	A
SILANE, DICHLORODIPHENYL-	00080-10-4	10	7,1,6	1	10	100	1000	R
SILANE, DICHLOROETHYL	01789-58-8	10	7,1,6	1	10	100	1000	T
SILANE, DICHLOROMETHYL-	00075-54-7	10	7,1,6	1	10	100	1000	M
SILANE, DICHLOROMETHYLPHENYL-	00149-74-6	1	7,4	0.1	1	10	100	E
SILANE, TRICHLORO(CHLOROMETHYL)-	01558-25-4	1	7,4	0.1	1	10	100	N

SILANE, TRICHLORO(DICHLOROPHENYL)-	27137-85-5	1	7,1,4	0.1	1	10	100	T
SILANE, TRICHLORO-	10025-78-2	10	7,1,6	1	10	100	1000	
SILANE, TRICHLORO-2-PROPENYL-	00107-37-9	10	7,1,6	1	10	100	1000	O
SILANE, TRICHLOROETHYL-	00115-21-9	1	7,1,4,6	0.1	1	10	100	F
SILANE, TRICHLOROHEXADECYL-	05894-60-0	50	7,1,6	5	50	500	5000	
SILANE, TRICHLOROMETHYL-	00075-79-6	1	7,1,4,6	0.1	1	10	100	E
SILANE, TRICHLOROPENTYL-	00107-72-2	10	7,1,6	1	10	100	1000	N
SILANE, TRICHLOROPHENYL-	00098-13-5	1	7,1,4,6	0.1	1	10	100	V
SILANE, TRICHLOROPROPYL	00141-57-1	10	7,1,6	1	10	100	1000	I
								R

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		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
SILANE, TRIETHOXY-	00998-30-1	1	7,4	0.1	1	10	100	
SILICATE(2-), HEXAFLUORO-, DIAMMONIUM	16919-19-0	50	7,1,3,6	(See RCs of any listed constituents)				
SILICATE(2-), HEXAFLUORO-, ZINC (1:1)	16871-71-9	100	7,1,3	(See RCs of any listed constituents)				3
SILICON CHLORIDE	10026-04-7	10	1	(See RCs of any listed constituents)				1
SILICON TETRAFLUORIDE	07783-61-1	10	1	(See RCs of any listed constituents)				0
SILVER 7440-22-4	50	6,1,3,7,2,8	0.007	0.007	100	200		
SILVER COMPOUNDS, NOS		50	3	(See RCs of any listed constituents)				
SILVER CYANIDE	00506-64-9	1	1,2,3,7	(See RCs of any listed constituents)				C
SILVER NITRATE	07761-88-8	1	6,1,3	(See RCs of any listed constituents)				M

SILVEX00093-72-1	10	2,3,1,6	1	10	100	1000		:
SIMAZINE	00122-34-9	10	6	1	10	100	1000	
SINTERED CALCIUM CHROMATE	13765-19-0	5	6,1,2,3,5,3	(See RCs of any listed constituents)				D
SODIUM	07440-23-5	5	6,1,3,7	(Not Applicable)				E
SODIUM AMIDE	07782-92-5	10	1	(See RCs of any listed constituents)				P
SODIUM ANTHRAQUINONE-1-SULFONATE	00128-56-3	50		(See RCs of any listed constituents)				A
SODIUM ARSENATE	07631-89-2	1	4,1,3	(See RCs of any listed constituents)				R
SODIUM ARSENITE	07784-46-5	1	4,1,3	(See RCs of any listed constituents)				T
SODIUM AZIDE	26628-22-8	50	6,1,3,7,4	(See RCs of any listed constituents)				M

SODIUM BICHROMATE	10588-01-9	5	6,3,1	(See RCs of any listed constituents)				E
SODIUM BIFLUORIDE	01333-83-1	10	1,3,6	(See RCs of any listed constituents)				N
SODIUM BISULFITE	07631-90-5	100	6,1,3	(See RCs of any listed constituents)				T
SODIUM CACODYLATE	00124-65-2	1	4	(See RCs of any listed constituents)				
SODIUM CHLORATE	07775-09-9	10	6,1	(See RCs of any listed constituents)				O
SODIUM CHLORITE	07758-19-2	10	6,1	(See RCs of any listed constituents)				F
SODIUM CHROMATE	07775-11-3	5	1,3,6	(See RCs of any listed constituents)				
SODIUM CYANIDE	00143-33-9	5	1,2,3,7,6,4	(See RCs of any listed constituents)				E
SODIUM DICHROMATE	10588-01-9	5	1,3,6	(See RCs of any listed constituents)				N
SODIUM DINITRO-O-CRESOLATE	02312-76-7	10	1	1	10	100	1000	V
SODIUM DODECYLBENZENESULFONATE	25155-30-0	50	1,3,6	(See RCs of any listed constituents)				I
								R

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		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
SODIUM FLUORIDE	01333-83-1	10	1,3,6	(See RCs of any listed constituents)				
SODIUM FLUORIDE	07681-49-4	50	6,1,3	(See RCs of any listed constituents)				
SODIUM FLUORIDE (MONO)	07681-49-4	50	1,3,6	(See RCs of any listed constituents)				3
SODIUM FLUORIDE (NaF)	07681-49-4	50	7,1,3,6	(See RCs of any listed constituents)				1
SODIUM FLUOROACETATE	00062-74-8	5	6,4,2,3	(See RCs of any listed constituents)				0
SODIUM HYDRATE	01310-73-2	50	1,3,6,8	(See RCs of any listed constituents)				
SODIUM HYDRIDE	07646-69-7	10	6,1,7	(See RCs of any listed constituents)				C
SODIUM HYDROGEN SULFITE	07631-90-5	100	1,3,6	(See RCs of any listed constituents)				M
SODIUM HYDROSULFIDE	16721-80-5	100	1,3,6	(See RCs of any listed constituents)				R

SODIUM HYDROXIDE	01310-73-2	50	6,1,3,8	(See RCs of any listed constituents)				:
SODIUM HYPOCHLORITE	07681-52-9	10	1,3,6	(See RCs of any listed constituents)				
SODIUM HYPOCHLORITE	10022-70-5	10	3	(See RCs of any listed constituents)				D
SODIUM HYPOCHLORITE PENTAHYDRATE	10022-70-5	10	3,6	(See RCs of any listed constituents)				E
SODIUM METHYLATE	00124-41-4	50	1,3,6	(See RCs of any listed constituents)				P
SODIUM NITRITE	07632-00-0	10	1,3,6	(See RCs of any listed constituents)				A
SODIUM PENTACHLOROPHENATE	00131-52-2	1	1,2	(See RCs of any listed constituents)				R
SODIUM PERCHLORATE	07601-89-0	10	6,1	0.002	1	0.1	6	T
SODIUM PEROXIDE	01313-60-6	10	6,1	0.002	1	0.1	5	M

SODIUM PHOSPHATE, DIBASIC	07558-79-4	100	1,3,6	(See RCs of any listed constituents)				E
SODIUM PHOSPHATE, DIBASIC	10039-32-4	100	3,6	(See RCs of any listed constituents)				N
SODIUM PHOSPHATE, DIBASIC	10140-65-5	100	3,6	(See RCs of any listed constituents)				T
SODIUM PHOSPHATE, TRIBASIC	07601-54-9	100	1,3,6	(See RCs of any listed constituents)				
SODIUM PHOSPHATE, TRIBASIC	07758-29-4	100	3,6	(See RCs of any listed constituents)				O
SODIUM PHOSPHATE, TRIBASIC	07785-84-4	100	3,6	(See RCs of any listed constituents)				F
SODIUM PHOSPHATE, TRIBASIC	10101-89-0	100	3,6	(See RCs of any listed constituents)				
SODIUM PHOSPHATE, TRIBASIC	10124-56-8	100	3,6	(See RCs of any listed constituents)				E
SODIUM PHOSPHATE, TRIBASIC	10361-89-4	100	3,6	(See RCs of any listed constituents)				N
SODIUM SELENATE	13410-01-0	1	4	(See RCs of any listed constituents)				V
SODIUM SELENITE	07782-82-3	10	3,6	(See RCs of any listed constituents)				I
								R

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		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
SODIUM SELENITE	10102-18-8	10	4,1,3	(See RCs of any listed constituents)				
SODIUM SULFIDE	16721-80-5	100	6,1,3	(See RCs of any listed constituents)				
SODIUM SULFIDE (NA(SH))	16721-80-5	100	7,1,3,6	(See RCs of any listed constituents)				3
SODIUM TELLURITE	10102-20-2	1	4	(See RCs of any listed constituents)				1
SODIUM-O-PHENYLPHENATE	00132-27-4	1	6,7	(See RCs of any listed constituents)				0
SPIRO[BENZOFURAN-2(3H),1'-[2]CYCLOHEXENE]-3,4'..	00126-07-8	1	7	0.1	1	10	100	
STANNANE, ACETOXYTRIPHENYL-	00900-95-8	1	4,1	0.1	1	10	100	C
STANNANE, CHLOROTRIPHENYL-	00639-58-7	1	7,4	0.1	1	10	100	M
STANNANE, TETRAETHYL-	00597-64-8	1	7,4	0.1	1	10	100	R

STANNANE, TRICYCLOHEXYLHYDROXY-	13121-70-5	1	6,1	0.1	1	10	100	:
STANNIC CHLORIDE	07646-78-8	10	6	(See RCs of any listed constituents)				
STEARIC ACID, LEAD (2+) SALT	01072-35-1	5	7,1,3,6	(See RCs of any listed constituents)				D
STEARIC ACID, LEAD SALT	07428-48-0	5	7,1,3,6	(See RCs of any listed constituents)				E
STEARIC ACID, LEAD SALT, DIBASIC	52652-59-2	5	3,6	(See RCs of any listed constituents)				P
STEARIC ACID, LEAD SALT, DIBASIC	56189-09-4	5	6	(See RCs of any listed constituents)				A
STIBINE TRIFLUORO-	07783-56-4	50	7,1,3,6	(See RCs of any listed constituents)				R
STIBINE, TRIBROMO-	07789-61-9	50	7,1,3,6	(See RCs of any listed constituents)				T
STIBINE, TRICHLORO-	10025-91-9	50	1,3,6	(See RCs of any listed constituents)				M

4,4'-STILBENEDIOL, ALPHA,ALPHA'-DIETHYL-	00056-53-1	1	3,2,6	0.1	1	10	100	E
4,4'-STILBENEDIOL, ALPHA,ALPHA-DIETHYL, BIS(DIHYDROGE..	00056-53-1	1	2,3,6	0.1	1	10	100	N
STREPTOZOTOCIN	18883-66-4	1	6,2,3	0.1	1	10	100	T
STRICHNIDIN-10-ONE, SULFATE (2:1)	00060-41-3	1	7,4	(See RCs of any listed constituents)				
STRONTIUM CHROMATE	07789-06-2	5	6,1,3	(See RCs of any listed constituents)				O
STRONTIUM SULFIDE	01314-96-1	10	1,2,3,6	(See RCs of any listed constituents)				F
STRYCHNIDIN-10-ONE, 2,3-DIMETHOXY-	00357-57-3	5	2,3,7,1,6	0.5	5	50	500	
STRYCHNIDIN-10-ONE, AND SALTS	00057-24-9	5	2,3,7,1,4,6	0.5	5	50	500	E
STRYCHNINE	00057-24-9	5	1,6,4,2,3	0.5	5	50	500	N
STRYCHNINE, SULFATE	00060-41-3	1	4	(See RCs of any listed constituents)				V
STYRENE	100-42-5	50	3,5,6,1,8	0.1	0.1	3	4	I
								R

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SULFAMIC ACID, COBALT(2+) SALT (2:1)	14017-41-5	50	7,1,3,6	(See RCs of any listed constituents)				
SULFAMIC ACID, MONOAMMONIUM SALT	07773-06-0	100	7,1,3,6	(See RCs of any listed constituents)				
SULFIDE, BIS(2-CHLOROETHYL)-	00505-60-2	1	2,4,6,8	0.1	1	10	100	3
SULFOLANE	00126-33-0	100	6	10	100	1000	10000	1
SULFOTEP	03689-24-5	10	6,4,1,2,3	1	10	100	1000	0
SULFOXIDE, 3-CHLOROPROPYL OCTYL	03569-57-1	1	7,4	0.1	1	10	100	
SULFUR CHLORIDE	12771-08-3	50	3,6	(See RCs of any listed constituents)				C
SULFUR CHLORIDE (DI)	10545-99-0	10	1	(See RCs of any listed constituents)				M
SULFUR DIOXIDE	07446-09-5	1	6,1,7,4	(See RCs of any listed constituents)				R

SULFUR FLUORIDE (SF4), (T-4)-	07783-60-0	1	7,4,6	(See RCs of any listed constituents)				:
SULFUR HYDRIDE	07783-06-4	10	2,3,1,4,5,6,8	(See RCs of any listed constituents)				
SULFUR MONOCHLORIDE	12771-08-3	50	3,6	(See RCs of any listed constituents)				D
SULFUR MONOCHLORIDE	10025-67-9	10	6	(See RCs of any listed constituents)				E
SULFUR PHOSPHIDE	01314-80-3	10	3,1,6	(See RCs of any listed constituents)				P
SULFUR SELENIDE	07488-56-4	5	3,5,6	(See RCs of any listed constituents)				A
SULFUR TETRAFLUORIDE	07783-60-0	1	4,6	(See RCs of any listed constituents)				R
SULFUR TRIOXIDE	07446-11-9	1	1,7,4	(See RCs of any listed constituents)				T
SULFURIC ACID	07664-93-9	50	4,6,1,3,5,7,8	(See RCs of any listed constituents)				M

SULFURIC ACID	08014-95-7	50	3,1,6	(See RCs of any listed constituents)				E
SULFURIC ACID COPPER(2+) SALT (1:1)	07758-98-7	5	7,1,3,6	(See RCs of any listed constituents)				N
SULFURIC ACID, ALUMINUM SALT	10043-01-3	100	1,3,6	(See RCs of any listed constituents)				T
SULFURIC ACID, AMMONIUM IRON	10045-89-3	50	3,1,6	(See RCs of any listed constituents)				
SULFURIC ACID, AMMONIUM NICKEL(2+) SALT (2:2:1)	15699-18-0	10	7,3,6	(See RCs of any listed constituents)				O
SULFURIC ACID, CHROMIUM(3) SALT(3:2)	10101-53-8	50	1,3,6	(See RCs of any listed constituents)				F
SULFURIC ACID, DIMETHYL ESTER	00077-78-1	10	2,3,7,1,4,6,8	1	10	100	1000	
SULFURIC ACID, DITHALLIUM(1+) SALT	07446-18-6	10	7,1,3,4	(See RCs of any listed constituents)				E
SULFURIC ACID, IRON(2+) SALT (1:1)	07720-78-7	50	7,1,3,6	(See RCs of any listed constituents)				N
SULFURIC ACID, IRON(2+) SALT (1:1), HEPTAHYDRATE	07782-63-0	50	7,3,6	(See RCs of any listed constituents)				V
SULFURIC ACID, IRON(3) SALT(3:2)	10028-22-5	50	3,1,6	(See RCs of any listed constituents)				I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
SULFURIC ACID, LEAD SALT	15739-80-7	5	7,1,3,6	(See RCs of any listed constituents)				
SULFURIC ACID, LEAD(2+) SALT	07446-14-2	5	7,1,3	(See RCs of any listed constituents)				
SULFURIC ACID, MERCURY(2+) SALT (1:1)	07783-35-9	5	7,1,3,6	(See RCs of any listed constituents)				3
SULFURIC ACID, MIXT. WITH SULFUR TRIOXIDE	08014-95-7	50	7,1,3,6	(See RCs of any listed constituents)				1
SULFURIC ACID, NICKEL(2+) SALT (1:1)	07786-81-4	10	7,1,3,6	(See RCs of any listed constituents)				0
SULFURIC ACID, THALLIUM SALT	10031-59-1	10	7,3,4	(See RCs of any listed constituents)				
SULFURIC ACID, THALLIUM(I) SALT	07446-18-6	10	3,1,4	(See RCs of any listed constituents)				C
SULFURIC ACID, ZINC SALT (1:1)	07733-02-0	50	7,1,3	(See RCs of any listed constituents)				M
SULFURIC ACID, ZIRCONIUM(4+) SALT (2:1)	14644-61-2	100	7,1,3	(See RCs of any listed constituents)				R

SULFURIC ANHYDRIDE	07446-11-9	1	1,4	(See RCs of any listed constituents)				:
SULFUROUS ACID, 2-[4-(1,1-DIMETHYLETHYL)PHENOXY]..	02312-35-8	5	7,1,3,6	0.5	5	50	500	
SULFUROUS ACID, DIAMMONIUM SALT	10196-04-0	100	1,3,6	(See RCs of any listed constituents)				D
SULFUROUS ACID, MONOAMMONIUM SALT	10192-30-0	100	1,3,6	(See RCs of any listed constituents)				E
SULFUROUS ACID, MONOSODIUM SALT	07631-90-5	100	7,1,3,6	(See RCs of any listed constituents)				P
SULFURYL CHLORIDE	07791-25-5	10	6,1,7	(See RCs of any listed constituents)				A
SULFURYL FLUORIDE	02699-79-8	10	6,1,7	(See RCs of any listed constituents)				R
SYNTHETIC OIL (DEP RQ in gallons)		10	5	(Not Applicable)				T
SYSTOX	08065-48-3	1	6,4	0.1	1	10	100	M

2,4,5,-T	00093-76-5	10	1,2,3,6	1	10	100	1000	E
2,4,5-T ACID ESTERS	32534-95-5	10	6	1	10	100	1000	N
2,4,5-T AMINES	01319-72-8	100	3,6	10	100	1000	10000	T
2,4,5-T AMINES	02008-46-0	100	3,6	10	100	1000	10000	
2,4,5-T AMINES	03813-14-7	100	3,6	10	100	1000	10000	O
2,4,5-T AMINES	06369-96-6	100	3,6	10	100	1000	10000	F
2,4,5-T AMINES	06369-97-7	100	3,6	10	100	1000	10000	
2,4,5-T ESTERS	00093-79-8	50	3,6	5	50	500	5000	E
2,4,5-T ESTERS	01928-47-8	50	3,6	5	50	500	5000	N
2,4,5-T ESTERS	02545-59-7	50	3,6	5	50	500	5000	V
2,4,5-T ESTERS	25168-15-4	50	3,6	5	50	500	5000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2	S1	S2	
				(mg/l)	(mg/l)	(mg/kg)	(mg/kg)	
2,4,5-T ESTERS	61792-07-2	50	3,6	5	50	500	5000	
2,4,5-T SALTS	13560-99-1	50	3,6	(See RCs of any listed constituents)				
TABUN 00077-81-6	1	4	0.1	1	10	100		3
TARTARIC ACID, AMMONIUM SALT	14307-43-8	100	6	10	100	1000	10000	1
TARTARIC ACID, DIAMMONIUM SALT	03164-29-2	100	6	10	100	1000	10000	0
TDE	72-54-8	1	1,3,6,2	0.0002	0.05	10	40	
TEBUTHIURON	34014-18-1	100	5	10	100	1000	10000	
TEDP	03689-24-5	10	6,1,2,3,4	1	10	100	1000	C
TELLURIC ACID, DISODIUM SALT	10102-20-2	1	7,4	(See RCs of any listed constituents)				M

TELLURIUM	13494-80-9	1	4,6	0.1	1	10	100	:
TELLURIUM FLUORIDE (TeF6), (OC-6-11)-	07783-80-4	1	7,4,6	(See RCs of any listed constituents)				
TELLURIUM HEXAFLUORIDE	07783-80-4	1	4,6	(See RCs of any listed constituents)				D
TEMEPHOS	03383-96-8	10	6,1	1	10	100	1000	E
TEPP	00107-49-3	5	6,4,1,2,3	0.5	5	50	500	P
TERBUFOS	13071-79-9	1	4,1	0.1	1	10	100	A
TERBUTRYN	00886-50-0	10	5	1	10	100	1000	R
TESTOSTERONE PROPIONATE	00057-85-2	1	6,7	0.1	1	10	100	T
1,1,2,2,-TETRABROMOETHANE	00079-27-6	50	6,1	5	50	500	5000	M

1,2,4,5-TETRACHLOROBENZENE	00095-94-3	100	1,2,3,6	10	100	1000	10000	E
2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD)	1746-01-6	1	6,2,3	3E-08	4E-05	2E-05	6E-05	N
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (equivalents)	1746-01-6	1	6,2,3	3E-08	4E-05	2.E-05	6E-05	T
1,1,2,2-TETRACHLOROETHANE	79-34-5	10	1,2,3,5,6,8	0.002	0.009	0.005	0.02	
TETRACHLOROETHANE	79-34-5	10	1,2,3,5,6,8	0.002	0.009	0.005	0.02	O
1,1,1,2-TETRACHLOROETHANE	630-20-6	10	2,3,6,8	0.005	0.01	0.1	0.1	F
TETRACHLOROETHYLENE	127-18-4	10	1,3,5,6,8	0.005	0.02	1	4	
TETRACHLOROMETHANE	56-23-5	5	2,3,5,6,8,1	0.002	0.002	5	5	E
TETRACHLOROPHENOL	25167-83-3	5	1	0.5	5	50	500	N
2,3,4,6-TETRACHLOROPHENOL	00058-90-2	5	1,2,3,6	0.5	5	50	500	V
2,3,5,6-TETRACHLOROPHENOL	00935-95-5	5	5	0.5	5	50	500	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
TETRAETHYL DITHIONOPYRO-PHOSPHATE	03689-24-5	10	6,1,2,3,4	1	10	100	1000	
TETRAETHYL LEAD	00078-00-2	5	1,2,3,4,6	0.5	5	50	500	
TETRAETHYL PYROPHOSPHATE	00107-49-3	5	1,3,2,4,6	0.5	5	50	500	3
TETRAETHYLDITHIOPYROPHOSPHATE	03689-24-5	10	1,2,3,4,6	1	10	100	1000	1
TETRAETHYLPYROPHOSPHATE	00107-49-3	5	2,1,3,4,6	0.5	5	50	500	0
TETRAETHYLTIN	00597-64-8	1	4	0.1	1	10	100	
TETRAFLUROETHYLENE	00116-14-3	10	1,6	1	10	100	1000	C
TETRAFLUROETHYLENE MONOMER	00116-14-3	10	6,1	1	10	100	1000	M
TETRAHYDROFURAN	00109-99-9	50	1,3,5,6	5	50	500	5000	R

TETRAHYDROFURFURYL ALCOHOL	00097-99-4	10	6	1	10	100	1000	:
TETRAMETHYL LEAD	00075-74-1	1	4,6,1	0.1	1	10	100	
TETRAMETHYLTHIURAM DISULFIDE	00137-26-8	5	6,1,2,3,8	0.5	5	50	500	D
TETRANITROMETHANE	00509-14-8	5	1,2,3,6,4	0.5	5	50	500	E
TETRAPHOSPHORIC ACID, HEXAETHYL ESTER	00757-58-4	10	2,3,7,1,6	1	10	100	1000	P
TETROSAN	08023-53-8	100	7	10	100	1000	10000	A
TETRYL	00479-45-8	10	1,6	1	10	100	1000	R
THALLIC OXIDE	01314-32-5	10	2,3	(See RCs of any listed constituents)				T
THALLIUM	7440-28-0	50	6,3,7,2,8	0.002	3	8	70	M

THALLIUM (I) ACETATE	00563-68-8	10	2,3,6	(See RCs of any listed constituents)				E
THALLIUM (I) CARBONATE	06533-73-9	10	2,3,4	(See RCs of any listed constituents)				N
THALLIUM (I) CHLORIDE	07791-12-0	10	3,2,4	(See RCs of any listed constituents)				T
THALLIUM (I) NITRATE	10102-45-1	10	2,3,6,1	(See RCs of any listed constituents)				
THALLIUM (I) SELENIDE	12039-52-0	10	3,2,3	(See RCs of any listed constituents)				O
THALLIUM (I) SULFATE	07446-18-6	10	3,1,4	(See RCs of any listed constituents)				F
THALLIUM COMPOUNDS, NOS		50	3	(See RCs of any listed constituents)				
THALLIUM CHLORIDE (TlCl)	07791-12-0	10	7,2,3,4	(See RCs of any listed constituents)				E
THALLIUM OXIDE	01314-32-5	10	2,3	(See RCs of any listed constituents)				N
THALLIUM SELENIDE	12039-52-0	10	2,3,3	(See RCs of any listed constituents)				V
								I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations				
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
THALLIUM SELENITE	12039-52-0	10	2,3,6,3	(See RCs of any listed constituents)				
THALLIUM SULFATE	07446-18-6	10	1,3,4	(See RCs of any listed constituents)				
THALLIUM SULFATE	10031-59-1	10	4,3	(See RCs of any listed constituents)				3
THALLOUS CARBONATE	06533-73-9	10	4,2,3	(See RCs of any listed constituents)				1
THALLOUS CHLORIDE	07791-12-0	10	4,2,3	(See RCs of any listed constituents)				0
THALLOUS MALONATE	02757-18-8	1	4	(See RCs of any listed constituents)				
THALLOUS SULFATE	07446-18-6	10	4,1,3	(See RCs of any listed constituents)				C
THALLOUS SULFATE	10031-59-1	10	3,4	(See RCs of any listed constituents)				M
THIMET	00298-02-2	5	6,2,3,4,1	0.5	5	50	500	R

THIOACETAMIDE	00062-55-5	5	2,3,6,8	0.5	5	50	500	:
THIOCARBAZIDE	02231-57-4	1	4	0.1	1	10	100	
THIOCYANIC ACID, (2-BENZOTHAZOLYLTHIO)-METHYL ...	21564-17-0	100	7	10	100	1000	10000	D
THIOCYANIC ACID, AMMONIUM SALT	01762-95-4	100	7,1,3,6	(See RCs of any listed constituents)				E
THIOCYANIC ACID, ETHYL ESTER	00542-90-5	1	7,4	0.1	1	10	100	P
THIOCYANIC ACID, LEAD(2+) SALT	00592-87-0	5	7,1,3,6	(See RCs of any listed constituents)				A
THIOCYANIC ACID, MERCURY(2+) SALT	00592-85-8	5	7,1,3,6	(See RCs of any listed constituents)				R
THIOCYANIC ACID, METHYL ESTER	00556-64-9	1	7,4	0.1	1	10	100	T
THIODAN	115-29-7	1	1,2,3,6,4	0.002	0.002	0.6	1	M

THIODIPHOSPHORIC ACID ([(HO)2P(S)]2O), TETRAETHY..	03689-24-5	10	7,1,2,3,4,6	1	10	100	1000	E
THIOFANOX	39196-18-4	10	4,1,2,3	1	10	100	1000	N
THIOIMIDODICARBONIC DIAMIDE	00541-53-7	10	3,2,7,1,4	1	10	100	1000	T
THIOMETHANOL	00074-93-1	10	2,3,6,1,4,8	1	10	100	1000	
THIOMETON	00640-15-3	100		10	100	1000	10000	O
THIONAZIN	00297-97-2	10	4,1,2,3	1	10	100	1000	F
THIONYL CHLORIDE	07719-09-7	10	6,1,7	(See RCs of any listed constituents)				
THIOPEROXYDICARBONIC DIAMIDE, TETRAMETHYL-	00137-26-8	5	1,2,3,6,8	0.5	5	50	500	E
THIOPHENE	00110-02-1	10	6	1	10	100	1000	N
THIOPHENE, TETRAHYDRO-, 1,1-DIOXIDE	00126-33-0	100	7,6	10	100	1000	10000	V
THIOPHENOL	00108-98-5	10	1,2,3,4,6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
THIOPHOSGENE	00463-71-8	10	2	1	10	100	1000	
THIOPHOSPHORYL CHLORIDE	03982-91-0	10	1	1	10	100	1000	
THIOSEMICARBAZIDE	00079-19-6	10	1,2,3,4	1	10	100	1000	3
THIOSULFURIC ACID (H2S2O3), DIAMMONIUM SALT	07783-18-8	100	7,1,6	(See RCs of any listed constituents)				1
THIOUREA	00062-56-6	5	2,3,6,7,8	0.5	5	50	500	0
THIOUREA, (2-CHLOROPHENYL)-	05344-82-1	10	2,3,7,4,1	1	10	100	1000	
THIOUREA, (2-METHYLPHENYL)-	00614-78-8	1	7,4	0.1	1	10	100	C
THIOUREA, 1-NAPHTHALENYL-	00086-88-4	10	2,3,7,1,4,6	1	10	100	1000	M
THIOUREA, PHENYL-	00103-85-5	10	2,3,1,4	1	10	100	1000	R

THIRAM	00137-26-8	5	1,3,6,2,8	0.5	5	50	500	:
THIURAM	00137-26-8	5	2,1,3,6,8	0.5	5	50	500	
TIN, CHLOROTRIMETHYL	01066-45-1	1	4	0.1	1	10	100	D
TITANIUM CHLORIDE (TiCl4), (T-4)-	07550-45-0	1	7,1,4,6,8	(See RCs of any listed constituents)				E
TITANIUM TETRACHLORIDE	07550-45-0	1	6,1,8,4	(See RCs of any listed constituents)				P
TOBACCO LEAF, ABSOLUTE	08037-19-2	1	6,7	(See RCs of any listed constituents)				A
TOBACCO OIL	08037-19-2	1	7	(See RCs of any listed constituents)				R
o-TOLIDINE	00119-93-7	5	8,6,2,3	0.5	5	50	500	T

TOLUENE	108-88-3	50	1,2,3,5,6,8	1	40	30	1000	M
TOLUENE 2,4-DIISOCYANATE	00584-84-9	10	4,8,3	1	10	100	1000	E
TOLUENE 2,6-DIISOCYANATE	00091-08-7	10	4,8,3	1	10	100	1000	N
TOLUENE DIISOCYANATE	00091-08-7	10	3,4,8	1	10	100	1000	T
TOLUENE DIISOCYANATE	00584-84-9	10	3,4,8	1	10	100	1000	
TOLUENE-2,4-DIISOCYANATE (TDI)	00584-84-9	10	6,3,4,8	1	10	100	1000	O
TOLUENEDIAMINE	00095-80-7	5	3,2,6,8	0.5	5	50	500	F
2,4-TOLUENEDIAMINE	00095-80-7	5	2,3,6,8	0.5	5	50	500	
TOLUENEDIAMINE	00496-72-0	5	3,2,6	0.5	5	50	500	E
3,4-TOLUENEDIAMINE	00496-72-0	5	2,3,6	0.5	5	50	500	N
TOLUENEDIAMINE	00823-40-5	5	3,2,6	0.5	5	50	500	V
								I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations			
					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
2,6-TOLUENEDIAMINE	00823-40-5	5	2,3,6	0.5	5	50	500	
TOLUENEDIAMINE	25376-45-8	5	3,2,8,6	0.5	5	50	500	
TOLUENEDIAMINE, N.O.S.	25376-45-8	5	2,3,8,6	0.5	5	50	500	3
p-TOLUENESULFONIC ACID	00104-15-4	10	6	1	10	100	1000	1
o-TOLUIDINE	00095-53-4	10	2,5,6,8,3	1	10	100	1000	0
p-TOLUIDINE	00106-49-0	10	2,6,3	1	10	100	1000	
o-TOLUIDINE HYDROCHLORIDE	00636-21-5	10	6,2,3,8	1	10	100	1000	C
TOLUOL	108-88-3	50	1,2,3,5,6,8	1	40	30	1000	M
TOLYLENE DIISOCYANATE	00584-84-9	10	2,1,3	1	10	100	1000	R
TORDON	01918-02-1	10	6	1	10	100	1000	:

TOTAL PETROLEUM HYDROCARBONS (See Petroleum Hydrocarbons)								
TOXAPHENE	08001-35-2	1	6,1,2,3,8,7,4	0.1	1	10	100	D
2,4,5-TP00093-72-1	10	1,2,3,6	1	10	100	1000		E
2,4,5-TP ACID ESTERS	32534-95-5	10	3,6	1	10	100	1000	P
TRANSFORMER OIL (DEP RQ IN GALLONS)		10	5	(See TPH RC and RCs of other listed constituents)				A
TREMOLITE	01332-21-4	1	6,1,3,5,8	(Not Applicable)				R
TRIAMIPHOS	01031-47-6	1	4	0.1	1	10	100	T
1,3,5-TRIAZINE, 2,4,6-TRIFLUORO-	00675-14-9	1	7,4	0.1	1	10	100	M
TRIAZOFOS	24017-47-8	1	4,1	0.1	1	10	100	E

1H-1,2,4-TRIAZOL-3-AMINE	00061-82-5	5	2,3,7,6,8	0.5	5	50	500	N
TRIBROMOMETHANE	75-25-2	10	1,2,3,6,8	0.004	0.7	0.1	1	T
TRIBUTYL PHOSPHATE	00126-73-8	50	6	5	50	500	5000	
TRIBUTYLALUMINUM	01116-70-7	10	6	1	10	100	1000	O
TRIBUTYLAMINE	00102-82-9	10	6	1	10	100	1000	F
TRICHLORFON	00052-68-6	10	3,8,1	1	10	100	1000	
TRICHLOROACETIC ACID	00076-03-9	10	1,6	1	10	100	1000	E
TRICHLORO(CHLOROMETHYL)SILANE	01558-25-4	1	4	0.1	1	10	100	N
TRICHLORO(DICHLOROPHENYL)SILANE	27137-85-5	1	4,1	0.1	1	10	100	V
1,1,1-TRICHLORO-2,2-BIS(P-CHLOROPHENY...	50-29-3	1	1,2,3,6	0.0003	0.001	7	30	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
TRICHLOROACETALDEHYDE	00075-87-6	100	6	10	100	1000	10000	
TRICHLOROACETYL CHLORIDE	00076-02-8	1	4	0.1	1	10	100	
1,2,4-TRICHLOROBENZENE	120-82-1	10	1,2,3,8,6	0.07	0.2	2	6	3
1,1,1-TRICHLOROETHANE	71-55-6	50	1,2,3,5,6,8	0.2	4	30	600	1
1,1,2-TRICHLOROETHANE	79-00-5	10	2,3,5,6,8	0.005	0.9	0.1	2	0
TRICHLOROETHENE	79-01-6	10	1,2,3,5,6,8	0.005	0.005	0.3	0.3	
TRICHLOROETHYLENE	79-01-6	10	1,2,3,5,6,8	0.005	0.005	0.3	0.3	C
TRICHLOROETHYLSILANE	00115-21-9	1	6,4,1	0.1	1	10	100	M
TRICHLOROFLUOROMETHANE	00075-69-4	100	1,6,2,3,8	10	100	1000	10000	R
TRICHLOROMETHANE	67-66-3	5	1,2,3,5,6,8,4	0.05	0.05	0.2	0.2	:

TRICHLOROMETHANESULFENYL CHLORIDE	00594-42-3	10	1,3,2,4,6	1	10	100	1000	
TRICHLOROMETHANETHIOL	00594-42-3	10	2,1,3,4,6	1	10	100	1000	D
TRICHLOROMONOFUOROMETHANE	00075-69-4	100	2,3,1,6,8	10	100	1000	10000	E
TRICHLORONATE	00327-98-0	1	4,1	0.1	1	10	100	P
2,4,6-TRICHLOROPHENOL	88-06-2	5	2,3,5,6,8	0.01	0.5	0.7	20	A
2,4,5-TRICHLOROPHENOL	95-95-4	5	2,3,8,6	0.2	3	4	600	R
3,4,5-TRICHLOROPHENOL	00609-19-8	5	3,6	0.5	5	50	500	T
2,3,6-TRICHLOROPHENOL	00933-75-5	5	3,6	0.5	5	50	500	M
2,3,5-TRICHLOROPHENOL	00933-78-8	5	3,6	0.5	5	50	500	E

2,3,4-TRICHLOROPHENOL	15950-66-0	5	3,6	0.5	5	50	500	N
TRICHLOROPHENOL	25167-82-2	5	1,3,6	0.01	0.1	2	2	T
2,4,5-TRICHLOROPHENOXYACETIC ACID	00093-76-5	10	1,2,3,6	1	10	100	1000	
2,4,5-TRICHLOROPHENOXYPROPIONIC ACID	00093-72-1	10	1,2,3,6	1	10	100	1000	O
TRICHLOROPHENYLSILANE	00098-13-5	1	4,1,6	0.1	1	10	100	F
1,2,3-TRICHLOROPROPANE	00096-18-4	10	2,6	1	10	100	1000	
TRICHLOROSILANE	10025-78-2	10	6,1	1	10	100	1000	E
TRICHLORO-S-TRIAZINETRIONE	00087-90-1	10	2,6	1	10	100	1000	N
TRICHLORPHON	00052-68-6	10	1,3,8	1	10	100	1000	V
TRICRESYL PHOSPHATE	01330-78-5	5	1	0.5	5	50	500	I
								R

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					GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
TRICYCLOHEXYLTIN HYDROXIDE	13121-70-5	1	6,1	0.1	1	10	100	
TRIETHANOLAMINE DODECYLBENZENESULFONATE	27323-41-7	50	1,3,6	5	50	500	5000	
TRIETHOXYSilANE	00998-30-1	1	4	0.1	1	10	100	3
TRIETHYLALUMINUM	00097-93-8	10	6	1	10	100	1000	1
TRIETHYLAMINE	00121-44-8	100	1,3,5,6	10	100	1000	10000	0
TRIETHYLBORANE	00097-94-9	10	6	1	10	100	1000	
TRIFLUOROBORANE	07637-07-2	1	6,1,4	(See RCs of any listed constituents)				C
TRIFLUOROCHLOROETHYLENE	00079-38-9	10	1,6	1	10	100	1000	M
TRIFLURALIN	01582-09-8	1	6,8	0.1	1	10	100	R

TRIGLYCOL DICHLORIDE	00112-26-5	100	6	10	100	1000	10000	:
TRIISOBUTYLALUMINUM	00100-99-2	10	6	1	10	100	1000	
1,3,5-TRIMETHYL BENZENE	00108-67-8	1	6	0.1	1	10	100	D
TRIMETHYL PHOSPHITE	00121-45-9	100	6	10	100	1000	10000	E
TRIMETHYL TIN CHLORIDE	01066-45-1	1	4	0.1	1	10	100	P
2,4,4-TRIMETHYL-1-PENTENE	00107-39-1	10	6	1	10	100	1000	A
2,4,4-TRIMETHYL-2-PENTENE	00107-40-4	10	6	1	10	100	1000	R
3,4,4-TRIMETHYL-2-PENTENE	00598-96-9	50	6	5	50	500	5000	T
TRIMETHYLAMINE	00075-50-3	10	1,3,6	1	10	100	1000	M

1,2,4-TRIMETHYLBENZENE	00095-63-6	100	8,6	10	100	1000	10000	E
TRIMETHYLCHLOROSILANE	00075-77-4	1	1,4,6	0.1	1	10	100	N
TRIMETHYLOLPROPANE PHOSPHITE	00824-11-3	1	4	0.1	1	10	100	T
sym-TRINITROBENZENE	00099-35-4	5	2,3,1,6	0.5	5	50	500	
TRINITROBENZENE	00099-35-4	5	1,6,2,3	0.5	5	50	500	O
2,4,6-TRINITROPHENOL	00088-89-1	10	6,1,8	1	10	100	1000	F
TRINITROTOLUENE	00118-96-7	10	6,1	1	10	100	1000	
2,4,6-TRINITROTOLUENE (TNT)	00118-96-7	10	6,1	1	10	100	1000	E
2,6,7TRIOXA-1-PHOSPHABICYCLO [2.2.2.]OCTANE, 4-ETHYL-	00824-11-3	1	7,4	0.1	1	10	100	N
2,8,9-TRIOXA-5-AZA-1-SILABICYCLO[3.3.3]UNDECANE, 1-PHE..	02097-19-0	1	7,4	0.1	1	10	100	V
TRIOXANE	00110-88-3	10	6	1	10	100	1000	I
								R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations			
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
1,3,5-TRIOXANE, 2,4,6-TRIMETHYL-TRIPHENYL TIN CHLORIDE	00123-63-7	50	2,3,1,6,8	5	50	500	5000
TRIPHENYLTIN HYDROXIDE	00639-58-7	1	4	0.1	1	10	100
TRIPHOSPHORIC ACID, PENTASODIUM SALT	00076-87-9	1	6,1	0.1	1	10	100
TRIPROPYLAMINE	07758-29-4	100	7,3,6	(See RCs of any listed constituents)			
TRIS(2,3-DIBROMOPROPYL) PHOSPHATE	00102-69-2	50	6	5	50	500	5000
TRIS(2-CHLOROETHYL)AMINE	00126-72-7	5	2,3,8,6	0.1	1	10	100
TRYPAN BLUE	00555-77-1	1	4	0.1	1	10	100
TURPENTINE	00072-57-1	5	2,3,6,8	0.5	5	50	500
UDMH	08006-64-2	10	6,1	(See TPH RC and RCs of other relevant constituents)			
	00057-14-7	5	1,2,3,4,6,8	0.5	5	50	500

URACIL MUSTARD	00066-75-1	5	2,3,6	0.5	5	50	500
URACIL, 5-[BIS(2-CHLOROETHYL)AMINO]-	00066-75-1	5	2,3,6	0.5	5	50	500
URANIUM, BIS(ACETATO-O)DIOXO-	00541-09-3	10	7,1,3	1	10	100	1000
URANIUM, BIS(NITRATO-O,O')DIOXO-, (OC-6-11)-	36478-76-9	100	7,1,3	(See RCs of any listed constituents)			
URANUIM, BIS(NITRATO-O)DIOXO-, (T-4)-	10102-06-4	10	7,1,3,6	(See RCs of any listed constituents)			
URANIUM HEXAFLUORIDE	07783-81-5	10	1	(See RCs of any listed constituents)			
URANYL ACETATE	00541-09-3	10	1,3,6	1	10	100	1000
URANYL NITRATE	10102-06-4	10	6,1,3	(See RCs of any listed constituents)			
URANYL NITRATE	36478-76-9	100	1,3,6	(See RCs of any listed constituents)			

UREA, N'-(3,4-DICHLOROPHENYL)-N,N-DIMETHYL-	00330-54-1	10	7,1,3,6	1	10	100	1000
UREA, N'-[4-(4-CHLOROPHENOXY)PHENYL]-N,N-DIMETHYL-	01982-47-4	1	7,4	0.1	1	10	100
UREA, N-(4-NITROPHENYL)-N'-(3-PYRIDINYLMETHYL)-	53558-25-1	1	7,4	0.1	1	10	100
UREA, N-ETHYL-N-NITROSO-	00759-73-9	1	7,2,3,6,8	0.1	1	10	100
UREA, N-METHYL-N-NITROSO-	00684-93-5	1	7,2,3,6,8	0.1	1	10	100
UREA,N-(2-CHLOROETHYL)-N'-(4-METHYLCYCLOHEXYL)-N..	13909-09-6	1	7	0.1	1	10	100
URETHANE	00051-79-6	10	2,3,6,8	1	10	100	1000
VALERALDEHYDE	00110-62-3	10	6	1	10	100	1000
VALERIC ACID	00109-52-4	10	1,6	1	10	100	1000
VALINOMYCIN	02001-95-8	1	7,4	0.1	1	10	100

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		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
VANADATE (VO31-), AMMONIUM	07803-55-6	50	7,1,2,3,6	(See RCs of any listed constituents)				C M R : D E P A R T M E N T O F E N V I R O N M E N T
VANADIC ACID, AMMONIUM SALT	07803-55-6	50	3,2,1,6	(See RCs of any listed constituents)				
VANADIUM	7440-62-2	50	5	0.03	4	500	800	
VANADIUM CHLORIDE (VC14), (T-4)-	07632-51-1	10	7,1,6	(See RCs of any listed constituents)				
VANADIUM OXIDE	01314-62-1	50	1,2,3,4,5,6	(See RCs of any listed constituents)				
VANADIUM OXYTRICHLORIDE	07727-18-6	10	1	(See RCs of any listed constituents)				
VANADIUM PENTOXIDE	01314-62-1	50	1,2,3,5,4,6	(See RCs of any listed constituents)				
VANADIUM TETRACHLORIDE	07632-51-1	10	6,1	(See RCs of any listed constituents)				
VANADIUM, OXO[SULFATO(2-)-O]-	27774-13-6	50	7,1,3	(See RCs of any listed constituents)				

VANADYL SULFATE	27774-13-6	50	1,3,6	(See RCs of any listed constituents)				
VAPONA	00062-73-7	5	6,1,3,4,8	0.5	5	50	500	
VEGETABLE OIL (DEP RQ in gallons)		55	5	(Not Applicable)				
VINYL 2-CHLOROETHYL ETHER	00110-75-8	50	6,1,2,3	5	50	500	5000	
VINYL 2-METHOXYLETHYL ETHER	01663-35-0	10	6	1	10	100	1000	
VINYL ACETATE	00108-05-4	100	1,3,5,8,6,4	10	100	1000	10000	
VINYL ACETATE MONOMER	00108-05-4	100	4,1,3,5,6,8	10	100	1000	10000	
VINYL ACETYLENE	00689-97-4	10	6	1	10	100	1000	
VINYL BUTYL ETHER	00111-34-2	50	6	5	50	500	5000	

VINYL CHLORIDE	75-01-4	1	1,2,3,5,6,8	0.002	0.002	0.3	0.7	
VINYL CYANIDE	00107-13-1	10	6,1,2,3,4,5,8	1	10	100	1000	
4-VINYL CYCLOHEXENE	00100-40-3	10	6	1	10	100	1000	
VINYL FLUORIDE	00075-02-5	10	1,6	1	10	100	1000	
VINYL METHYL ETHER	00107-25-5	10	1,6	1	10	100	1000	
VINYL TOLUENE	25013-15-4	10	6,1	1	10	100	1000	
VINYL TRICHLOROSILANE	00075-94-5	10	1,6	1	10	100	1000	
4-VINYL-1-CYCLOHEXENE	00100-40-3	10	6	1	10	100	1000	
VINYLAMINE, N-METHYL-N-NITROSO	04549-40-0	5	3,1,6,8	0.5	5	50	500	
VINYLIDENE CHLORIDE	00075-35-4	10	1,3,5,6,8,2	0.007	0.08	3	40	

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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
VINYLDENE FLUORIDE	00075-38-7	10	6,1	1	10	100	1000	
VITRIOL, OIL OF	07664-93-9	50	1,3,4,5,6,8	(See RCs of any listed constituents)				
VM & P NAPHTHA	08030-30-6	10	6,1,5	(See TPH RC and RCs of other relevant constituents)				3
WARFARIN	00081-81-2	10	1,2,3,4,6,3	1	10	100	1000	1
WARFARIN SODIUM	00129-06-6	1	4	(See RCs of any listed constituents)				0
WASTE OIL (DEP RQ in gallons)		10		(See TPH RC and RCs of other relevant constituents)				
WHITE OIL (DEP RQ in gallons)		55	5	(Not Applicable)				
o-XYLENE								00095-47-6
p-XYLENE								00106-42-3
m-XYLENE								00108-38-2

XYLENES (Mixed Isomers)	1330-20-7	50	1,3,5,6,8	3	3	100	100	
2,4-XYLENOL	105-67-9	10	1,2,3,8,6	0.06	40	0.7	100	D
XYLENOL	01300-71-6	50	1,3,6	0.1	20	0.7	10	E
o-XYLIDINE	00087-62-7	10	6,8	1	10	100	1000	P
2,6-XYLIDINE	00087-62-7	10	8,6	1	10	100	1000	A
XYLOL 1330-20-7	50	1,3,5,6,8	3	3	100	100		R
XYLYLENE DICHLORIDE	28347-13-9	1	4	0.1	1	10	100	T
YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY- 1...	00050-55-5	100	2,3,7,1,6	10	100	1000	10000	M
ZINC 7440-66-6	50	6,3,7,8	0.9	0.9	1000	3000		E

ZINC ACETATE	00557-34-6	50	1,3,6	(See RCs of any listed constituents)				N
ZINC AMMONIUM CHLORIDE	14639-97-5	100	3	(See RCs of any listed constituents)				T
ZINC AMMONIUM CHLORIDE	14639-98-6	100	3	(See RCs of any listed constituents)				
ZINC AMMONIUM CHLORIDE	52628-25-8	50	1,3,6	(See RCs of any listed constituents)				O
ZINC BORATE	01332-07-6	50	1,3,6	(See RCs of any listed constituents)				F
ZINC BROMIDE	07699-45-8	50	1,3,6	(See RCs of any listed constituents)				
ZINC BROMIDE (ZnBr2)	07699-45-8	50	7,1,3,6	(See RCs of any listed constituents)				E
ZINC CARBONATE	03486-35-9	50	1,3,6	(See RCs of any listed constituents)				N
ZINC CHLORATE	10361-95-2	10	6,1	(See RCs of any listed constituents)				V

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CHEMICAL NAME	CAS NUM.	DEP	NAME	Reportable Concentrations					
		RQ (Pounds)	SOURCES	GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)		
ZINC CHLORIDE	07646-85-7	50	1,3,6	(See RCs of any listed constituents)					
ZINC CHLORIDE (ZnCl2)	07646-85-7	50	7,1,3,6	(See RCs of any listed constituents)					
ZINC CHROMATE	13530-65-9	5	6	(See RCs of any listed constituents)				3	
ZINC COMPOUNDS, NOS		50	3	(See RCs of any listed constituents)				1	
ZINC CYANIDE	00557-21-1	5	7,2,3,6,1	(See RCs of any listed constituents)				0	
ZINC ETHYL	00557-20-0	10	1,6	1	10	100	1000		
ZINC FLUORIDE	07783-49-5	50	1,3,6	(See RCs of any listed constituents)				C	
ZINC FLUORIDE (ZnF2)	07783-49-5	50	7,1,3,6	(See RCs of any listed constituents)				M	
ZINC FORMATE	00557-41-5	50	1,3,6	(See RCs of any listed constituents)				R	
ZINC HYDROSULFITE	07779-86-4	50	1,3,6	(See RCs of any listed constituents)				:	

ZINC NITRATE	07779-88-6	50	1,3,6	(See RCs of any listed constituents)					
ZINC PHENOLSULFONATE	00127-82-2	100	1,3,6	(See RCs of any listed constituents)				D	
ZINC PHOSPHIDE	01314-84-7	10	6,1,2,3,4,3	(See RCs of any listed constituents)				E	
ZINC SILICOFLUORIDE	16871-71-9	100	1,3,6	(See RCs of any listed constituents)				P	
ZINC SULFATE	07733-02-0	50	1,3,6	(See RCs of any listed constituents)				A	
ZINC, DICHLORO[4,4-DIMETHYL-5-[[[(METHYLAMINO)CA..	58270-08-9	1	4,7	0.1	1	10	100	R	
ZINC, DIETHYL	00557-20-0	10	7,1,6	1	10	100	1000	T	
ZINCATE(2-), TETRACHLORO-, DIAMMONIUM, (T-4)-	14639-97-5	100	7,3	(See RCs of any listed constituents)				M	
ZINCATE(3-), PENTACHLORO-, TRIAMMONIUM	14639-98-6	100	7,3,6	(See RCs of any listed constituents)				E	

ZINEB	12122-67-7	5	5	0.5	5	50	500	N	
ZIRCONATE(2-), HEXAFLUORO-, DIPOTASSIUM,(OC-6-11)-	16923-95-8	50	7,1,3	(See RCs of any listed constituents)				T	
ZIRCONIUM	07440-67-7	10	6,7,1	1	10	100	1000		
ZIRCONIUM CHLORIDE	10026-11-6	100	1,3,6	(See RCs of any listed constituents)				O	
ZIRCONIUM NITRATE	13746-89-9	100	1,3,6	(See RCs of any listed constituents)				F	
ZIRCONIUM PICRAMATE	63868-82-6	10	1,6	1	10	100	1000		
ZIRCONIUM POTASSIUM FLUORIDE	16923-95-8	50	1,3,6	(See RCs of any listed constituents)				E	
ZIRCONIUM SULFATE	14644-61-2	100	1,3,6	(See RCs of any listed constituents)				N	
ZIRCONIUM TETRACHLORIDE	10026-11-6	100	6,1,3	(See RCs of any listed constituents)				V	
									I
									R

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
UNLISTED HAZARDOUS MATERIALS					(Not Applicable)			
CHARACTERISTIC OF CORROSIVITY		10	5		(Not Applicable)			
CHARACTERISTIC OF IGNITABILITY ++		10	5		(Not Applicable)			3
CHARACTERISTIC OF INFECTIVITY		10	5		(Not Applicable)			1
CHARATERISTIC OF REACTIVITY		10	5		(Not Applicable)			0
CHARACTERISTIC OF TOXICITY			3		(Not Applicable)			
ARSENIC		1	3		(Not Applicable)			C
BARIUM		50	3		(Not Applicable)			M
BENZENE		5	3		(Not Applicable)			R

CADMIUM		5	3		(Not Applicable)			:
CARBON TETRACHLORIDE		5	3		(Not Applicable)			
CHLORDANE		1	3		(Not Applicable)			D
CHLOROBENZENE		10	3		(Not Applicable)			E
CHLOROFORM		5	3		(Not Applicable)			P
CHROMIUM		5	3		(Not Applicable)			A
O-CRESOL		50	3		(Not Applicable)			R
P-CRESOL		50	3		(Not Applicable)			T
M-CRESOL		50	3		(Not Applicable)			M

CRESOL		50	3		(Not Applicable)			E
2,4-D		10	3		(Not Applicable)			N
1,4-DICHLOROBENZENE		10	3		(Not Applicable)			T
1,2-DICHLOROETHANE		10	3		(Not Applicable)			
1,1-DICHLOROETHYLENE		10	3		(Not Applicable)			O
2,4-DINITROTOLUENE		5	3		(Not Applicable)			F
ENDRIN		1	3		(Not Applicable)			
HEPTACHLOR (AND EPOXIDE)		1	3		(Not Applicable)			E
HEXACHLOROBENZENE		5	3		(Not Applicable)			N
HEXACHLOROBUTADIENE		1	3		(Not Applicable)			V
++ Characteristic of Ignitibility does not include oils such as kerosene, gasoline, or jet fuel as these are considered PETROLEUM BASED OILS.								

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HEXACHLOROETHANE	53	10	3	(Not Applicable)				
LEAD		(Not Applicable)						
LINDANE		1	3	(Not Applicable)				3
MERCURY		1	3	(Not Applicable)				1
METHOXYCHLOR		1	3	(Not Applicable)				0
METHYL ETHYL KETONE		100	3	(Not Applicable)				
NITROBENZENE		50	3	(Not Applicable)				C
PENTACHLOROPHENOL		5	3	(Not Applicable)				M
PYRIDINE		50	3	(Not Applicable)				R
-----								:
SELENIUM		10	3	(Not Applicable)				
SILVER		50	3	(Not Applicable)				
TETRACHLOROETHYLENE		10	3	(Not Applicable)				D
TOXAPHENE		1	3	(Not Applicable)				E
2,4,5-TP		10	3	(Not Applicable)				P
TRICHLOROETHYLENE		10	3	(Not Applicable)				A
2,4,6-TRICHLOROPHENOL		5	3	(Not Applicable)				R
2,4,5-TRICHLOROPHENOL		5	3	(Not Applicable)				T
VINYL CHLORIDE		1	3	(Not Applicable)				M
-----								E
								N
								T
								O
								F
								E
								N
								V
								I
								R

MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
F001..... The following spent halogenated solvents used in degreasing; all spent solvent mixtures/blends used in degreasing containing, before use, a total of 10% or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005;and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (a) Tetrachloroethylene; (b) Trichloroethylene; (c) Methylene chloride; (d) 1,1,1-Trichloroethane; (e) Carbon tetrachloride; (f) Chlorinated fluorocarbons		5		(Not Applicable)			
F002..... The following spent halogenated solvents; all spent solvent mixtures/blends containing before use, a total of 10% or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. (a) Tetrachloroethylene; (b) Methylene chloride; (c) Trichloroethylene; (d) 1,1,1-Trichloroethane; (e) Chlorobenzene; (f) 1,2,2-Trichloro-1,2,2-trifluoroethane; (g) o-Dichlorobenzene; (h) Trichlorofluoromethane; (i) 1,1,2-Trichloroethane.		5		(Not Applicable)			
F003..... The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents: (a) Xylene; (b) Acetone; (c) Ethyl acetate; (d) Ethylbenzene; (e) Ethyl ether; (f) Methyl isobutyl ketone; (g) n-Butyl alcohol; (h) Cyclohexanone; (i) Methanol.		10		(Not Applicable)			
F004..... The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents: cresols and cresylic acid, and nitrobenzene.		50		(Not Applicable)			
F005..... The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents: (a) toluene; (b) methyl ethyl ketone; (c) carbon disulfide; (d) isobutanol; and (e) pyridine		10		(Not Applicable)			

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
F006..... Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid and anodizing of aluminum, (2) tin plating on carbon steel, (3) zinc plating (segregated basis) on carbon steel, (4) aluminum or zinc-aluminum plating on carbon steel, (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel, and (6) chemical etching and milling of aluminum		5		(Not Applicable)				3 1 0 C M R :
F007..... Spent cyanide plating bath solutions from electroplating operations.		5		(Not Applicable)				
F008..... Plating bath residues from the bottom of the plating baths from electroplating operations where cyanides are used in the process.		5		(Not Applicable)				D E P A R T M E N T
F009..... Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.		5		(Not Applicable)				O F E N V I R
F010..... Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.		5		(Not Applicable)				
F011..... Spent cyanide solution from salt bath pot cleaning from metal heat treating operations.		5		(Not Applicable)				

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F012..... Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process. Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.		5		(Not Applicable)			

F020..... Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-Trichlorophenol.)		1		(Not Applicable)			

F021..... Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.		1		(Not Applicable)			

F022..... Wastes (except wastewater and spent carbon from hydrogen chloride purification) from manufacturing use (as a reactant chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.		1		(Not Applicable)			

F023..... Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating		1		(Not Applicable)			

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process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-Trichlorophenol.)							
F024.....		1		(Not Applicable)			
Wastes including but not limited to distillation residues, heavy ends, tars, and reactor cleanout wastes, from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent filters and filter aids, spent desiccants(sic), wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in Section 261.32.)							
F025.....		1		(Not Applicable)			
Condensed light ends, spend filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free-radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.							
F026.....		1		(Not Applicable)			
Waste (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.							
F027.....		1		(Not Applicable)			
Discarded unused formulations containing tri-, tetra, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-Trichlorophenol as the sole component.)							

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F028..... Residues resulting from the incineration or thermal treatment of soil contaminated with EPA hazardous waste NOS. F020, F021, F022, F023, F026, AND F027.		1		(Not Applicable)				3

F032..... Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with 40 CFR Part 261.35, or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.		1		(Not Applicable)				1

F034..... Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.		1		(Not Applicable)				0

F035..... Wastewater (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.		1		(Not Applicable)				C

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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
F037..... Petroleum refinery primary oil/water/solids separation sludge - Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooking wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in 40 CFR Part 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.		1		(Not Applicable)				3 1 0 C M R : D E P A R T M E N T O F E N V I R
F038..... Petroleum refinery secondary (emulsified) oil/water/solids separation sludge - Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooking wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks, and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from once-through non-contact cooling waters segregated for treatment from other process or oil cooling wastes, sludges and floats generated in aggressive biological treatment units as defined in 40 CFR Part 261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing.		1		(Not Applicable)				

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CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
F039..... Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under 40 CFR Part 261.31 Subpart D. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other hazardous wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)		1		(Not Applicable)			
K001..... Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.		1		(Not Applicable)			
K002..... Wastewater treatment sludge from the production of chrome yellow and orange pigments.		1		(Not Applicable)			
K003..... Wastewater treatment sludge from the production of molybdate orange pigments.		5		(Not Applicable)			
K004..... Wastewater treatment sludge from the production of zinc yellow pigments.		5		(Not Applicable)			
K005..... Wastewater treatment sludge from the production of chrome green pigments.		5		(Not Applicable)			
K006..... Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).		5		(Not Applicable)			
K007..... Wastewater treatment sludge from the production of iron blue pigments.		5		(Not Applicable)			

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CHEMICAL NAME	CAS NUM.	DEP	NAME	GW1	Reportable Concentrations			
		RQ (Pounds)	SOURCES		GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
								3 1 0 C M R : D E P A R T M E N T O F E N V I R

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K008..... Oven residue from the production of chrome oxide green pigments.		5		(Not Applicable)			
K009..... Distillation bottoms from the production of acetaldehyde from ethylene.		5		(Not Applicable)			
K010..... Distillation side cuts from the production of acetaldehyde from ethylene.		5		(Not Applicable)			
K011..... Bottom stream from the wastewater stripper in the production of acrylonitrile.		5		(Not Applicable)			
K013..... Bottom stream from the acetonitrile column in the production of acrylonitrile.		5		(Not Applicable)			
K014..... Bottoms from the acetonitrile purification column in the production of acrylonitrile.		100		(Not Applicable)			
K015..... Still bottoms from the distillation of benzyl chloride.		5		(Not Applicable)			
K016..... Heavy ends or distillation residues from the production of carbon tetrachloride.		1		(Not Applicable)			
K017..... Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.		5		(Not Applicable)			
K018..... Heavy ends from the fractionation column in ethyl chloride production.		1		(Not Applicable)			

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K019..... Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.		1		(Not Applicable)				3
K020..... Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.		1		(Not Applicable)				1
K021..... Aqueous spent antimony catalyst waste from fluoromethanes production.		5		(Not Applicable)				0
K022..... Distillation bottom tars from the production of phenol/acetone from cumeme.		1		(Not Applicable)				C
K023..... Distillation light ends from the production of phthalic anhydride from naphthalene.		100		(Not Applicable)				M
K024..... Distillation bottoms from the production of phthalic anhydride from naphthalene.		100		(Not Applicable)				R
K025..... Distillation bottoms from the production of nitrobenzene by the nitration of benzene.		5		(Not Applicable)				:
K026..... Stripping still tails from the production of methyl ethyl pyridines.		50		(Not Applicable)				D
K027..... Centrifuge and distillation residues from toluene diisocyanate production.		5		(Not Applicable)				E
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K028..... Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-Trichloroethane.		1		(Not Applicable)				3
K029..... Waste from the product steam stripper in the production of 1,1,1-Trichloroethane.		1		(Not Applicable)				1
K030..... Column bottoms or heavy ends from the combined production of Trichloroethylene and Perchloroethylene.		1		(Not Applicable)				0
K031..... By-product salts generated in the production of MSMA and Cacodylic Acid.		1		(Not Applicable)				C
K032..... Wastewater treatment sludge from the production of chlordane.		5		(Not Applicable)				M
K033..... Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.		5		(Not Applicable)				R
K034..... Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.		5		(Not Applicable)				:
K035..... Wastewater treatment sludges generated in the production of creosote.		1		(Not Applicable)				D
K036..... Still bottoms from toluene reclamation distillation in the production of disulfoton.		1		(Not Applicable)				E
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K037..... Wastewater treatment sludges from the production of disulfoton.		1		(Not Applicable)				3
K038..... Wastewater from the washing and stripping of phorate production.		5		(Not Applicable)				1
K039..... Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.		5		(Not Applicable)				0
K040..... Wastewater treatment sludge from the production of phorate.		5		(Not Applicable)				C
K041..... Wastewater treatment sludge from the production of toxaphene.		1		(Not Applicable)				M
K042..... Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.		5		(Not Applicable)				R
K043..... 2,6-Dichlorophenol waste from the production of 2,4-D.		5		(Not Applicable)				T
K044..... Wastewater treatment sludges from the manufacturing and processing of explosives.		5		(Not Applicable)				O
K045..... Spent carbon from the treatment of wastewater containing explosives.		5		(Not Applicable)				F
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K046..... Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.		5		(Not Applicable)				3
K047..... Pink/red water from TNT operations.		5		(Not Applicable)				1
K048..... Dissolved air flotation (daf) float from the petroleum refining industry.		5		(Not Applicable)				0
K049..... Slop oil emulsion solids from the petroleum refining industry.		5		(Not Applicable)				C
K050..... Heat exchanger bundle cleaning sludge from the petroleum refining industry.		5		(Not Applicable)				M
K051..... Api separator sludge from the petroleum refining industry.		5		(Not Applicable)				R
K052..... Tank bottoms (leaded) from the petroleum refining industry.		5		(Not Applicable)				:
K060..... Ammonia still lime sludge from coking operations.		1		(Not Applicable)				D
K061..... Emission control dust/sludge from the primary production of steel in electric furnaces.		5		(Not Applicable)				E
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K062..... Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industries (SIC codes 331 and 332).		5			(Not Applicable)			3
-----								1
K064..... Acid plant blowdown slurry/sludge resulting from thickening of blowdown slurry from primary copper production.		5			(Not Applicable)			0
-----								C
K065..... Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.		5			(Not Applicable)			M
-----								R
K066..... Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.		5			(Not Applicable)			:
-----								D
K069..... Emission control dust/sludge from secondary lead smelting.		5			(Not Applicable)			E
-----								P
K071..... Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.		1			(Not Applicable)			A
-----								R
K073..... Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.		5			(Not Applicable)			T
-----								M
K083..... Distillation bottoms from aniline extraction.		10			(Not Applicable)			E
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K084..... Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo/arsenic compounds.		1		(Not Applicable)			
K085..... Distillation of fractionation column bottoms from the production of chlorobenzene.		5		(Not Applicable)			
K086..... Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.		5		(Not Applicable)			
K087..... Decanter tank tar sludge from coking operations.		10		(Not Applicable)			
K088..... Spent potliners from primary aluminum reduction.		1		(Not Applicable)			
K090..... Emission control dust or sludge from ferrochromiumsilicon production.		1		(Not Applicable)			
K091..... Emission control dust or sludge from ferrochromium production.		1		(Not Applicable)			
K093..... Distillation light ends from the production of phthalic anhydride from ortho-xylene.		100		(Not Applicable)			
K094..... Distillation bottoms from the production of phthalic anhydride from ortho-xylene.		100		(Not Applicable)			

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K095..... Distillation bottoms from the production of 1,1,1-Trichloroethane.		10		(Not Applicable)			
K096..... Heavy ends from the heavy ends column from the production of 1,1,1-Trichloroethane		10		(Not Applicable)			
K097..... Vacuum stripper discharge from the chlordane chlorinator in the production chlordane.		1		(Not Applicable)			
K098..... Untreated process wastewater from the production of toxaphene.		1		(Not Applicable)			
K099..... Untreated wastewater from the production of 2,4-D.		5		(Not Applicable)			
K100..... Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting (components of this waste are identical with those of K069).		5		(Not Applicable)			
K101..... Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.		1		(Not Applicable)			
K102..... Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.		1		(Not Applicable)			

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K103..... Process residues from aniline extraction from the production of aniline.		10		(Not Applicable)				3
K104..... Combined wastewater streams generated from nitrobenzene/aniline chlorobenzenes.		5		(Not Applicable)				1
K105..... Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.		5		(Not Applicable)				0
K106..... Wastewater treatment sludge from the mercury cell process in chlorine production.		1		(Not Applicable)				C
K107..... Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines.		5		(Not Applicable)				M
K108..... Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.		5		(Not Applicable)				R
K109..... Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.		5		(Not Applicable)				:
K110..... Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.		5		(Not Applicable)				D
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K111..... Product washwaters from the production of dinitrotoluene via nitration of toluene.		5			(Not Applicable)			
K112..... Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.		5			(Not Applicable)			3 1 0
K113..... Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.		5			(Not Applicable)			C M R :
K114..... Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.		5			(Not Applicable)			D E P A R T M E N T
K115..... Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.		5			(Not Applicable)			
K116..... Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.		5			(Not Applicable)			
K117..... Wastewater from the reaction vent gas scrubber in the production of ethylene bromide via bromination of ethene.		1			(Not Applicable)			O F
K118..... Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide.		1			(Not Applicable)			E N V I R

* Names Sources: 1 = DOT; 2 = RCRA; 3 = CERCLA HSL; 4 = SARA EHSL; 5 = DEP; 6 = MSL; 7 = 9CI; 8 = RTK

MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
K123..... Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.		5		(Not Applicable)				3 1 0
K124..... Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.		5		(Not Applicable)				C M R :
K125..... Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.		5		(Not Applicable)				D E P A R T M E N T
K126..... Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.		5		(Not Applicable)				O F
K131..... Wastewater from the reactor and spent sulfuric acid from the acid dryer in the production of methyl bromide.		10		(Not Applicable)				E N V I R
K132..... Spent absorbent and wastewater solids from the production of methyl bromide.		50		(Not Applicable)				
K136..... Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.		1		(Not Applicable)				

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
K141..... Process related from the recovery of coal tar, including but not limited to, tar collecting sump residues from the production of coke by-products produced from coal. This listing does not include K087 (Decanter tank tar sludge from coking operations).		1		(Not Applicable)			
K142..... Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.		1		(Not Applicable)			
K143..... Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.		1		(Not Applicable)			
K144..... Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.		1		(Not Applicable)			
K145..... Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.		1		(Not Applicable)			
K147..... Tar storage tank residues from coal tar refining.		1		(Not Applicable)			

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MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	GW1 (mg/l)	Reportable Concentrations GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)	
K148..... Residues from coal tar distillation, including, but not limited to, still bottoms.		1			(Not Applicable)			3
K149..... Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride.)		5			(Not Applicable)			1 0 C M R :
K150..... Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.		5			(Not Applicable)			D E P A R T M E N T
K151..... Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.		5			(Not Applicable)			O F E N V I R

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