



## 310 CMR 40.0000: MASSACHUSETTS CONTINGENCY PLAN

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- 40.1600: Massachusetts Oil and Hazardous Material List

SUBPART A: GENERAL PROVISIONS

40.0001: Authority

The regulations published at 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;

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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 can not 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;
  - (e) establish a program for the Department to issue Tier I Permits to persons seeking to carry out response actions at Tier I disposal sites; and
  - (f) 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 herein.
- (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.
- (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, as amended.
- (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.

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(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.

#### 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, as amended prior to October 1, 1993.

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(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.

(7) For purposes of 310 CMR 40.0000, the term "21C Facility" shall mean a hazardous waste management facility (1) for which a currently valid license has been issued pursuant to 310 CMR 30.800; or (2) that is a "facility having interim status pursuant to RCRA," as defined in 310 CMR 30.010, 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 through 310 CMR 30.589, the post-closure care of a RCRA Facility pursuant to 310 CMR 30.590 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.

(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 Section 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 Operation and Maintenance means remedial operations which rely upon the continuing or periodic use of on-site or in-situ mechanical and/or electro-mechanical systems or devices, excluding monitoring and landscaping.

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.

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 the Department's Rules for Adjudicatory Proceedings, 310 CMR 1.00.

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

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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 C<sub>5</sub> through C<sub>8</sub> Aliphatic Hydrocarbons, C<sub>9</sub> through C<sub>12</sub> Aliphatic Hydrocarbons, C<sub>9</sub> through C<sub>18</sub> Aliphatic Hydrocarbons, and C<sub>19</sub> through C<sub>36</sub> Aliphatic Hydrocarbons.

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.

Aromatic Hydrocarbon Fraction means C<sub>9</sub> through C<sub>10</sub> Aromatic Hydrocarbons and C<sub>11</sub> through C<sub>22</sub> 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. These terms 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. Such terms shall not include removals, containments or remedial actions.

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 which are either:

- (a) ubiquitous and consistently present in the environment at and in the vicinity of the disposal site of concern; and attributable to geologic or ecological conditions, or atmospheric deposition of industrial process or engine emissions;

40.0006: continued

- (b) attributable to coal ash or wood ash associated with fill material;
- (c) releases to groundwater from a public water supply system; or
- (d) petroleum residues that are incidental to the normal operation of motor vehicles.

Biota means plant or animal life.

C<sub>5</sub> through C<sub>8</sub> 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).

C<sub>9</sub> through C<sub>12</sub> 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).

C<sub>9</sub> through C<sub>18</sub> 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).

C<sub>19</sub> through C<sub>36</sub> 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).

C<sub>9</sub> through C<sub>10</sub> 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).

C<sub>11</sub> through C<sub>22</sub> 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 means the cancer risk (proportion affected) per unit dose of an oil or hazardous material, as published by EPA.

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

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.

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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 40.0630 upon completion of response actions at a Waiver Site;
- (e) 310 CMR 40.1140 upon completion of response actions required by an Audit Follow-up Plan;
- (f) 310 CMR 40.0484 upon completion of Phase I;
- (g) 310 CMR 40.0836 upon completion of Phase II;
- (h) 310 CMR 40.0862 upon completion of Phase III;
- (i) 310 CMR 40.0879 upon completion of Phase IV;
- (j) 310 CMR 40.0893 upon completion of Phase V; and
- (k) 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 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 70E F or, regardless of the pressure at 70E F, has an absolute pressure exceeding 104 pounds per square inch at 130E F.

Condition of Substantial Release Migration and SRM each mean 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 hazardous material to surface waters, subsurface structures, 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 that have resulted or are within one year likely to result in the discharge of vapors into school buildings or occupied residential dwellings.

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.

40.0006: continued

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 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.

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.

40.006: continued

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; or
- (d) within 500 feet of a private water supply well.

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.

Department and DEP each means the Department of Environmental Protection.

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40.0006: continued

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.

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.

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

40.006: continued

Environmental Monitor means the publication of that name issued by the Executive Office of 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.

EOEA means the Massachusetts Executive Office of 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 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 and 310 CMR 40.0000.

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

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. For purposes of the Numerical Ranking System, the entire coastline of Massachusetts shall be considered a fish habitat.

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.

40.0006: continued

Grant Agreement means the document which, upon signature by the Commissioner and the TAG 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.

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 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 as amended, 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.

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.

Hot Spot means a discrete area where the concentrations of oil or hazardous material or the thickness of Nonaqueous Phase Liquid ("NAPL") are substantially higher than those present in the surrounding area. A hot spot shall be identified based on consideration of both the concentrations or thickness 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.

40.0006: continued

- (a) 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.
- (b) Any discrete area where the average thickness of NAPL is greater than ten times the average thickness in the surrounding area is a Hot Spot.

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.



40.0006: continued

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).

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 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.

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

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.

Marine environment (Reserved)

Massachusetts Contingency Plan and MCP and this Contingency Plan 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.

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 10 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.

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.

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.

Nonaqueous Phase Liquid and NAPL each means oil and/or hazardous material that is present in the environment as a continuous separate phase as measured in a groundwater monitoring well or otherwise observed in the environment.

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:
  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.

40.0006: continued

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.
- (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.

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.

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.

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

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 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.

40.0006: continued

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.

40.0006: continued

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.

Numerical Ranking System and NRS each means the system set forth in 310 CMR 40.1500 for scoring disposal sites for purposes of Tier Classification and permitting.

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.

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.

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.

Periodic Review Opinion means an LSP Opinion that is prepared in accordance with 310 CMR 40.0580.

40.0006: continued

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.

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, including, without limitation, Tier I Permits.

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.

Permittee-of-Record means a permittee, unless and until the permit such person holds is transferred in accordance with 310 CMR 40.0700.

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.

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, and Phase V Inspection and Monitoring Report prepared in accordance with 310 CMR 40.0892.

Playground (*see* Park, playground and recreation area)

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.

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

40.0006: continued

(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.

NON-TEXT PAGE



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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 ascribed to such terms by 310 CMR 22.02.

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.

Rail Right-of-Way means lands or interests in lands which are in use as rights-of-way for rail purposes. This definition includes rights-of-way which are in use for rail transportation as regulated by M.G.L. c. 161C, and rail rights-of-way which are in use by the Massachusetts Bay Transportation Authority. This definition 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.*, as amended.

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, playground and recreation area)

Reference Concentration means the daily concentration in air of an oil and/or hazardous material which would not be expected to result in any adverse non-cancer health effects, as published by EPA.

Reference Dose means the daily dose of an oil or hazardous material which would not be expected to result in any adverse non-cancer health effects, as published by EPA.

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.

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 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 risks posed by a disposal site.

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

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

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

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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. The term "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.

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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.

Residual contamination means the concentrations of oil and/or hazardous material remaining at a site at which further remedial actions are not required by these regulations.

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;
- (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 applied to a disposal site at which there is No Significant Risk, as further defined by 310 CMR 40.1000.

Response Action Outcome Statement means an LSP Opinion submitted to the Department in accordance with 310 CMR 40.1000.

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.

40.0006: continued

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, and any day care center, as defined in M.G.L. c. 28A, § 9.

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; 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.

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, as amended.

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.

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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 "Area Subject to Protection Under the Act," as defined in 310 CMR 10.04.

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 which would pose a significant risk of harm to health, safety, public welfare, or the environment if it continued to be present for several years.

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 310 CMR 40.0700.

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 310 CMR 40.0700.

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.

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.

40.0006: continued

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 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 or 40.0600 for classifying a disposal site as either Tier I or Tier II and for categorizing Tier I disposal sites as Tier IA, Tier IB or Tier IC.

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.

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 150EC (C<sub>9</sub>) 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.

Transition Provisions means the regulations published at 310 CMR 40.0600.

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, as amended 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, a non-aqueous phase liquid (NAPL), that is not contained in drums, tanks, engineered impoundments, or other fabricated containers.



40.0006: continued

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 cancer risk (proportion affected) per concentration unit of an oil or hazardous material, as published by EPA.

Unknown Source means 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.

UTM means Universal Transverse Mercator.

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.

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 less than 200 degrees Celsius that are targeted analytes in EPA Method 8240 and other purgeable organic methods specified in EPA publication SW-846 entitled, "Test Methods for Evaluating Solid Waste."

Waiver of Approvals and Waiver each mean a waiver granted by the Department in accordance with 310 CMR 40.537, as amended 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.

40.0006: continued

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, as amended.

Water Quality Standards means the Massachusetts Surface Water Quality Standards (314 CMR 4.00) and the Massachusetts Groundwater Quality Standards (314 CMR 6.00).

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, the regulations published at 314 CMR 9.00 under the Massachusetts Clean Waters Act, or Section 401 of the federal Water Pollution Control Act, 33 U.S.C. 1341, as amended.

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.

Zone A means the area within 400 feet laterally from the bank of a Class A surface drinking water source (as identified in 314 CMR 4.00) and 200 feet laterally from the banks of its tributaries.

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.

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.

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 and this Contingency Plan.

40.0007: continued

- (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 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.
- (6) 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.
- (7) 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.
- (8) 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.

40.0008: continued

(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;
- (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 received on the date the transmission is delivered to the Department, provided that the date of the transmission is within seven days of the date the submittal is due and that a printed copy of the document is submitted to the appropriate office of the Department within fourteen days of the date the submittal is due; if the printed copy of the document is not received by the appropriate office of the Department within 14 days of the date the submittal is due, then the document will be considered received on the date the printed copy is received. In no case shall the printed copy be submitted to the Department more than 14 days after the date the electronic transmission is delivered to the Department.

(5) Exceptions.

- (a) Adjudicatory Proceedings. Documents required or permitted to be filed under 310 CMR 1.00, Rules for Adjudicatory Proceedings, and 310 CMR 5.00, Administrative Penalty Regulations, shall be filed in accordance with the rules for timely filing set forth therein.
- (b) Tier I Permits.
  - 1. The computation of time periods for timely action under 310 CMR 4.04(2) shall be determined in accordance with 310 CMR 40.0720(3).

## 40.0008: continued

2. A Tier I Permit Application shall be deemed received by the Department in accordance with 310 CMR 40.0008(4), provided a copy of the permit application fee remittance is attached to the application and the applicant certifies that the application fee has been mailed, or hand-delivered to the Department, concurrent with submittal of the application. If a copy of the permit application fee remittance is not attached to the application, or the certification of mailing or hand-delivery is not provided, the application shall be deemed received when the permit application fee is received (*i.e.* the date posted by the receiving bank).
- (c) 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 when delivered to the appropriate office of the Department (*i.e.* the date stamped received); or
  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.
- (d) Presumptive Approval of IRAs. Each written request for approval of an IRA shall be given to the Department by 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 received on the date the transmission is delivered to the Department, provided the printed copy of the document is delivered to the Department by hand or certified mail on or before the next business day.
- (e) 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;
  3. if given in writing by regular mail, the notification shall be deemed to be received when delivered to the appropriate office of the Department (*i.e.* the date stamped received); or
  4. if given in writing 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.

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, Response Action Outcome Statement, Tier I Permit Application, Tier Classification Submittal, LSP Evaluation Opinion, Tier II Extension Submittal, Tier II 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:

40.0009: continued

"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.

(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.

40.0010: continued

(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 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.

(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.

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 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.

40.0014: continued

(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 Class A or B Response Action Outcome 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 Response Action Outcome 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, 40.0500 or 40.0700;
- 2. any Release Abatement Measure Status Report submitted pursuant to 310 CMR 40.0445, 40.0500 or 40.0700;
- 3. any Utility-related Abatement Measure Status Report submitted pursuant to 310 CMR 40.0465, 40.0500 or 40.0700;

(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;
- 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:

- 1. any Phase II Scope of Work submitted pursuant to 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 V Inspection and Monitoring Report submitted pursuant to 310 CMR 40.0892;
- 8. any As-Built Construction Report submitted pursuant to 310 CMR 40.0875;



40.0015: continued

- (d) any LSP Evaluation Opinion submitted pursuant to 310 CMR 40.0600;
- (e) any Immediate Response Action Plan submitted pursuant to 310 CMR 40.0424, except as otherwise provided pursuant to 310 CMR 40.0411(2);
- (f) any Release Abatement Measure Plan submitted pursuant to 310 CMR 40.0444;
- (g) any Class A, B or C Response Action Outcome Statement submitted pursuant to 310 CMR 40.1000, except as otherwise provided pursuant to 310 CMR 40.1056(1)(g);
- (h) any LSP Tier Classification Opinion submitted pursuant to 310 CMR 40.0500;
- (i) any Periodic Review Opinion submitted pursuant to 310 CMR 40.0580;
- (j) any Activity and Use Limitation Opinion submitted pursuant to 310 CMR 40.1000;
- (k) any Audit Follow-up Plan submitted pursuant to 310 CMR 40.1160;
- (l) any Post-Audit Completion Statement submitted pursuant to 310 CMR 40.1170;
- (m) any Downgradient Property Status Opinion submitted pursuant to 310 CMR 40.0180; and
- (n) 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 and the MCP; 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(4) 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.

(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.

40.0017: continued

(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 effect 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.

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;
- (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.*, as amended, 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 310 CMR 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 Response Action Outcome 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 Response Action Outcomes.

- (1) If the activities, uses, and/or exposures upon which a Response Action Outcome 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 and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or eliminate a substantial hazard, the owner and operator of the property or properties subject to the Response Action Outcome 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
  - (a) notify the Department, in accordance with the procedures set forth in 310 CMR 40.0300, immediately upon gaining knowledge of any one or more 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).

40.0020: continued

(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.

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 40.0550 or 40.0560, the person undertaking response actions shall comply with the requirements and procedures set forth therein.

40.0027: Pittsfield Pilot

(1) Purpose. The purpose of 310 CMR 40.0027 is to establish rules for a Pilot Project to implement one or more temporary solutions for long term use at eligible sites in the City of Pittsfield to promote the reuse, redevelopment, and economic growth of such sites pursuant to the Berkshire Economic Development Authority Act, St. 1996, c. 295, § 23.

(2) Definitions. The following term applies to 310 CMR 40.0027:

(a) Plan means the specific description of the long term temporary solution(s) to be implemented at an applicable site subject to the Pilot Project which is prepared by the Department of Environmental Protection.

40.0027: continued

(3) Applicable Sites.

(a) This Pilot Project applies only to:

1. industrial portions of disposal sites in the City of Pittsfield;
2. that are greater than 100 contiguous acres in size;
3. that are owned by a single owner as of August 9, 1996;
4. for which notification of a release of oil and/or hazardous material has been provided pursuant to M.G.L. chapter 21E and 42 U.S.C. 6901 *et seq* as of August 9, 1996; and
5. where existing zoning only allows for industrial uses.

(b) This Pilot Project shall not apply to any rivers, streams, or other surface waters and the banks thereof.

(4) General Requirements for the Pilot Project. In order for the Pilot Project to apply, the following requirements shall be met:

(a) Timeframe. One or more long term temporary solutions shall be implemented by August 9, 2001 in accordance with the requirements of 310 CMR 40.0027 and the Plan prepared by the Department of Environmental Protection. The timeframe for implementing the pilot may be extended upon approval from the Department;

(b) Participation. The Pilot Project requires the active participation of a prospective owner or owners, or a lessee or lessees, with site use plans which will result in the creation of a substantial number of new jobs;

(c) Performance Standard. The long term temporary solution(s) implemented at the disposal site(s) subject to the Pilot Project shall be consistent with the requirements and standards as described in the Plan and shall ensure the protection of health, safety, public welfare and the environment;

(d) Change in Party Conducting Response Actions. Should the owner or lessee of a property subject to the Pilot Project sell the property or transfer a leasehold interest in the property, responsibility for conducting necessary response actions to implement or maintain one or more long term temporary solutions at the subject property pursuant to 310 CMR 40.0027 and the Plan may be transferred to the new owner or leaseholder upon approval from the Department. The following information and assurances satisfactory to the Department shall be provided to the Department by any person seeking approval of the proposed transfer:

1. written consent by the transferee to the terms and conditions of the pilot project and the Plan;
2. a demonstration by the transferee of ability and willingness to conduct the response actions necessary to implement or maintain one or more long term temporary solutions, including provision of financial assurance for the performance of the work;
3. the transferee's relevant history of compliance with M.G.L. c. 21E and 310 CMR 40.0000 and other state, federal and local laws for the protection of health, safety, public welfare and the environment ; and
4. a statement as to why the transfer is sought.

(e) Public Involvement. Opportunity for public involvement shall be provided according to 310 CMR 40.1400.

(5) Effect of Pilot Project. Compliance with the provisions of 310 CMR 40.0027 and the Plan shall be deemed to satisfy the remediation requirements of MGL c. 21E, § 3A and of 310 CMR 40.0000 when the Department issues a written determination of compliance.

(6) Termination of Pilot Project.

(a) A disposal site which is being remediated pursuant to the Pilot Project shall continue to be covered by the terms of the Pilot Project unless and until:

1. the Department of Environmental Protection determines that the party performing response actions under the Pilot Project is not implementing or maintaining one or more long term temporary solutions in compliance with the Plan or the requirements of 310 CMR 40.0027; and
2. after notice by the Department, said party fails to correct violations within the timeframe specified in the notice.

(b) Failure to correct a violation within the specified timeframe will result in the termination of the Pilot Project, and the disposal site(s) will become subject to the all otherwise applicable requirements of M.G.L. c. 21E and 310 CMR 40.0000.

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. Otherwise, a valid license issued pursuant to M.G.L. c. 21C and 310 CMR 30.000 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).

(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, the "Massachusetts Hazardous Waste Regulations."

(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.

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 a release notification threshold 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, 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 a release notification threshold 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 when they are transported from a disposal site.

(3) Soils containing oil or waste oil at concentrations less than a release notification threshold specified in 310 CMR 40.0300 and 40.1600, and that are not otherwise a hazardous waste, and soils that contain one or more hazardous materials at concentrations less than a release notification threshold, 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:

40.0032: continued

- (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.



40.0032: continued

(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:

- (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. 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;
- (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;
- (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 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 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 an original 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 original 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 original 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 original 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 40.0048, 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.

(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 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;

NON-TEXT PAGE

40.0041: continued

- (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.

(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 (or higher if required by 257 CMR 2.13) 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 and below 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, 5.00 or 7.00, 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.

40.0041: continued

(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 twelve 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;
  - 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, the Massachusetts Surface Water Discharge Permit Program, 314 CMR 5.00, the Massachusetts Ground Water Discharge Permit Program, or 314 CMR 7.00, the Massachusetts 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.



40.0042: continued

(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.

(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, the Massachusetts Sewer System Extension and Connection Permit Program, provided the discharge is exempt from such permitting requirements under 314 CMR 7.05.

(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, 5.00, and/or 8.00, 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, 5.00, and/or 8.00; 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.

40.0044: continued

(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:

- (a) such a discharge 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) such a discharge 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 concentrations of the oils and hazardous materials discharged are below the Massachusetts Ground Water Quality Standards established by 314 CMR 6.00, and below the applicable Reportable Concentrations established by 310 CMR 40.0300 and 40.1600;
  - 2. groundwater downgradient of the point of discharge is monitored at regular intervals of 3 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, 7th, and 21st day 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.

(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;

40.0045: continued

- (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
- (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 310 CMR 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.

(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.

40.0046: Application of Remedial Additives

(1) In General. 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 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, result in groundwater mounding within two feet of the ground surface, or result in flooding of or breakout to the ground surface;
- (b) does not result in concentrations of Remedial Additives and/or Remedial Additive By-products in the soil or groundwater that exceed the Massachusetts Ground Water Quality Standards established by 314 CMR 6.00, or the applicable groundwater or soil standards set forth in 310 CMR 40.0000, at any point measured 50 feet or more downgradient from the furthest downgradient point of application;
- (c) does not exacerbate existing conditions, or prevent or impair the performance of remedial actions at the disposal site; and
- (d) 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, the Massachusetts Ground Water Discharge Permit Program, provided the discharge is exempt from such permitting requirements under 314 CMR 5.05.

(3) Requirement for Applications Near Water Supplies. The application of Remedial Additives within 100 feet of any private water supply well, within 800 feet of any public water supply well or well field, within 800 feet of any surface water supply used in a public water system or any tributary thereto, or within 50 feet of any other surface water body or any tributary thereto, is prohibited, unless approved in writing by the Department.

(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 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 oils and hazardous materials, and Remedial Additives and/or Remedial Additive By-products, which may be present in soil and/or groundwater from previous application of Remedial Additives; and
- (b) after the 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 of 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, until the final application of Remedial Additives is made.

(5) Each person performing response actions at a disposal site pursuant to M.G.L. c. 21E and 310 CMR 40.0000 that includes 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)(b), unless the concentrations of Remedial Additives applied were below applicable standards set forth in 40.0046(1)(b). 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 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 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.

## 40.0047: continued

(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 310 CMR 40.0040 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 within 21 days of the date of such report, 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.

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, 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 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:

- (a) the mass flux and toxicities of the oil and hazardous material being emitted;
- (b) the types and proximity of human and ecological populations;
- (c) background concentrations of oil and hazardous material in the ambient atmosphere;
- (d) relevant policies issued by the Department; and
- (e) 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, treatment devices shall be installed as needed as soon as possible.

(5) Except as provided in 310 CMR 40.0049(6), air-emission control treatment 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) 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.

(7) No provision of 310 CMR 40.0049(3) or 40.0049(6) 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.

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.
- (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 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 list a Location to be Investigated or disposal site pursuant to M.G.L. c. 21E, § 3A(b) and/or 310 CMR 40.0168;
  - (g) a decision to issue a Tier I Permit pursuant to 310 CMR 40.0700 in a category lower than that recommended in the permit application;
  - (h) a decision whether to authorize site access pursuant to M.G.L. c. 21E, § 8, and 310 CMR 40.0173;
  - (i) a decision whether to develop an administrative record in accordance with 310 CMR 40.1300;

40.0050: continued

- (j) 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;
- (k) a decision whether to initiate enforcement action against any person under M.G.L. c. 21E and/or 310 CMR 40.0000;
- (l) a decision regarding a petition for reimbursement of costs under 310 CMR 40.1260;
- (m) a decision whether to initiate Compliance Assistance under 310 CMR 40.1100;
- (n) a decision whether to issue a Technical Assistance Grant;
- (o) a decision upon administrative review of a demand for payment of Response Action Costs in accordance with 310 CMR 40.1220(3);
- (p) 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;
- (q) 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;
- (r) any decision to designate one or more disposal sites or response actions as a Special Project in accordance with 310 CMR 40.0026;
- (s) any Reclassification of a Tier IA disposal site made in accordance with 310 CMR 40.0583;
- (t) any decision to exempt a Location To Be Investigated, Unclassified Disposal Site, or Non-Priority Site Without a Waiver from the transition provisions of 310 CMR 40.0600 in accordance with 310 CMR 40.0637; and
- (u) 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.

40.0060: Special Project Designation

310 CMR 40.0061 through 40.0068, cited collectively as 310 CMR 40.0060, set forth the requirements and procedures for Special Project designations.

40.0061: Purpose and Eligibility

- (1) The Department may designate certain projects as "Special Projects." Special Project designation shall authorize the Department to:
  - (a) extend the deadline for submitting a Tier Classification Submittal required by 310 CMR 40.0500 and 40.0600; and
  - (b) establish an alternative annual compliance assurance fee schedule for the Special Project as described in 310 CMR 4.00.
- (2) Eligible Applicants. Any public body politic, including but not limited to any federal, state or municipal governmental entity, may apply to the Department for designation of a project as a Special Project.



40.0061: continued

(3) Eligible Projects. Projects eligible for Special Project designation 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. 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 demonstrated its support of the project by committing and/or securing public financing for the project (e.g., by providing direct financing, tax increment financing or special tax assessments pursuant to G.L. c. 23A, §§ 3A through 3F, etc.); and
- (d) compliance with the response action deadlines described in 310 CMR 40.0500 would unreasonably decrease the cost-effectiveness of project implementation.

(4) Disposal sites for which a Tier Classification Submittal has been submitted to the Department shall not be eligible for Special Project designation.

40.0062: Procedures for Applying for Special Project Designation

(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) a photocopy of the fee payment;
- (e) a description of the project and its expected duration, an explanation of why Special Project designation is necessary to successfully implement the project, the requested duration of the Special Project designation, and a description of how the project meets the criteria in 310 CMR 40.0061(3);
- (f) a map of the land area for which the Special Project designation is sought, including identification of all properties that would be included;
- (g) 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, and a brief description of such releases and the status of response actions;
- (h) to the extent known, a description of response actions planned in the Special Project, including a proposed schedule;
- (i) the name, business address, and telephone number of the person who will be conducting response actions under the Special Project designation;
- (j) 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;
- (k) a demonstration that the applicant has notified the persons who own or control the properties included in the Special Project designation and a description of how access to the properties will be obtained in order to perform response actions; and
- (l) 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 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; or
- (c) is incorrectly filled out.

(3) An application for Special Project designation shall be reviewed in accordance with the procedures described in 310 CMR 4.04 and in accordance with the schedule described in 310 CMR 4.10(10)(j).

40.0062: continued

(4) Public Review of Application. Upon issuance of a proposed decision to grant or deny a Special Project designation, the Department shall conduct a public comment period.

(a) Upon such issuance, the applicant shall publish a legal notice of the proposed decision and its availability for public review and comment in a newspaper which circulates in the community in which the project is located. Such legal notice shall be in a form established by the Department and shall include information about how and where the public can review the application for Special Project designation and the deadline for submission of comments to the Department.

(b) At least three days prior to publication of the legal notice, the applicant shall deliver a copy of the notice by mail or hand to the Chief Municipal Officer and Board of Health in the community in which the project is located, and to the Department.

(c) The public comment period shall run for at least 20 calendar days. Upon request or upon its own initiative, the Department may extend the public comment period.

(5) Response Action Deadlines During Special Project Designation Application Review. Notwithstanding 310 CMR 40.0501(3), a release proposed for inclusion within a Special Project designation shall not be subject to the deadline for Tier Classification while the Special Project designation application is being reviewed by the Department. If the application is denied by the Department pursuant to 310 CMR 40.0060 and 310 CMR 4.00, then 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.

40.0063: Department Decision Concerning Special Project Designation

(1) In considering whether to grant or deny an application, the Department shall consider the following:

(a) whether risks posed by releases at or from property proposed for inclusion in the Special Project designation can be identified and managed in a manner which 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 response action deadlines described in 310 CMR 40.0500 would unreasonably decrease the cost-effectiveness of project implementation;

(d) whether implementation of the proposed response actions is feasible and likely, and whether the applicant and other participants (e.g., property owners) have agreed to such implementation;

(e) the environmental compliance history of the applicant and the party who will implement proposed response actions (if different from the applicant);

(f) whether significant public comments can be addressed in the decision;

(g) whether Department oversight of response actions is necessary; and

(h) any other factor the Department deems relevant to the decision.

(2) The Department may deny a Special Project designation application if it determines that:

(a) the applicant has submitted information in the application which 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 proposed for inclusion in the Special Project designation cannot be identified and managed in a manner which protects health, safety, public welfare, and the environment;

(d) compliance with the response action deadlines described in 310 CMR 40.0500 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 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

(3) The Department's decision shall establish an appropriate schedule for complying with the requirements of 310 CMR 40.0000.

(a) No Special Project designation shall be approved for a period longer than five years from the date of the Department's decision.

(b) The designation may be extended for one or more periods not to exceed five years each upon Department approval pursuant to 310 CMR 40.0066

(4) A Special Project designation shall become effective upon issuance by the Department, unless a request for an adjudicatory hearing is made pursuant to 310 CMR 40.0050.

40.0064: Special Project Designation Conditions

(1) Any person performing response actions to address a release 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 and any other applicable federal, state or local laws.

(2) All Special Project designations 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 approved by the Department during the course of the Special Project, including, but not limited to, IRAs and RAMs;

(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 property owned or controlled by the permittee to employees, agents and contractors of the Department for all purposes authorized by c. 21E and to other persons performing response actions;

(f) avoid engaging in activities which could prevent or impede the implementation of reasonably likely response actions in the future;

(g) file a Tier Classification Submittal for any release which requires further response actions by the date the Special Project designation expires, unless such designation is extended pursuant to 310 CMR 40.0066;

(h) 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; and

(i) comply with any other conditions necessary to ensure the appropriate implementation of response actions.

(3) Special Project designation 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

(1) The permittee may seek to modify a Special Project designation to:

(a) add or remove property subject to the Special Project designation;

(b) change the schedule of proposed response actions, excluding extending the duration of the Special Project designation; or

(c) change any other aspect of the Special Project designation.

(2) A request for a modification 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 description of and rationale for the modification sought; and

(c) the certification required by 310 CMR 40.0009.

(3) Special Project designation modification shall not be subject to processing requirements under 310 CMR 4.00.

40.0065: continued

(4) In considering whether to grant or deny a request for a modification of a Special Project designation, the Department shall consider the criteria in 310 CMR 40.0063(1).

(5) Within 60 days of receipt of a request to modify a Special Project Designation, the Department shall respond in writing with a proposed decision to either approve or deny the modification. Upon issuance of the Department's proposed decision, the requirements in 310 CMR 40.0062(4) shall apply.

(a) In the absence of significant public comment providing a basis for the Department to deny the modification or significantly alter the Special Project designation proposed to be modified, the Department shall grant or deny the modification within 30 days following the close of the public comment period.

(b) If significant public comment is received, the applicant shall have 30 days following the close of the public comment period to respond. Within 30 days of the Department's receipt of the applicant's response the Department shall grant or deny the modification.

40.0066: Extension of Special Project Designation

(1) A permittee may request an extension of Special Project designation. A request 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 and the requested duration of the extension;

(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, 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

(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 extension shall not be subject to processing requirements under 310 CMR 4.00.

(3) In considering whether to grant or deny a request for an extension of Special Project designation, the Department shall consider the criteria in 310 CMR 40.0063(1).

(4) Within 60 days of receipt of a request to extend a Special Project Designation, the Department shall respond in writing with a proposed decision to either approve or deny the extension. Upon issuance of the Department's proposed decision, the requirements in 310 CMR 40.0062(4) shall apply.

(a) In the absence of significant public comment providing a basis for the Department to deny the extension or significantly modify the Special Project designation proposed to be extended, the Department shall grant or deny the extension within 30 days following the close of the public comment period.

(b) If significant public comment is received, the applicant shall have 30 days following the close of the public comment period to respond. Within 30 days of the Department's receipt of the applicant's response the Department shall grant or deny the extension.

40.0067: Termination of Special Project Designation

(1) A permittee may voluntarily surrender a Special Project designation 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).

40.0067: continued

- (2) Special Project designation shall terminate if:
  - (a) the permittee voluntarily surrenders the designation as described in 310 CMR 40.0067(1);
  - (b) the permittee submits a Class A or B Response Action Outcome Statement pursuant to 310 CMR 40.1000 for the release(s) covered by the Special Project designation;
  - (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; or
  - (d) the Special Project designation expires.

40.0068: Suspension and Revocation of Special Project Designation

- (1) The Department may suspend or revoke a Special Project designation 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 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.
- (2) Prior to the suspension or revocation of a Special Project designation for cause, the Department shall issue a notice of intent to suspend or revoke the Special Project designation 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) Notwithstanding 310 CMR 40.0068(2), suspension or revocation of a Special Project designation because of nonpayment of annual compliance assurance fees shall be processed in accordance with 310 CMR 4.03(7).
- (4) Upon suspension or revocation of a Special Project designation, the Department shall establish new deadlines for Tier Classification for any releases which require further response actions.

NON-TEXT PAGE

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.
- (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;

40.0101: continued

- (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;
- (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; and
- (u) 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:



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- (a) 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
  - (b) 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
  - (c) 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
  - (d) 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.
- (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.

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 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;
    - 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;
  - (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;

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- (d) the requirements and procedures in 310 CMR 40.0405 through 40.0429 applicable to Immediate Response Actions, except:
  - 1. with respect to conditions of substantial release migration, 310 CMR 40.0413; and
  - 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 40.0670;
- (f) the requirements and procedures in 310 CMR 40.0900 and 310 CMR 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 Response Action Outcome Statements shall not apply; and
  - 3. the requirements therein shall not be deemed to preempt more stringent applicable federal and state standards; and
- (g) 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 310 CMR 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 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;
- (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 40.0670;
- (f) the requirements and procedures in 310 CMR 40.0900 and 310 CMR 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 Response Action Outcome Statements shall not apply; and
  - 3. the requirements therein shall not be deemed to preempt more stringent applicable federal and state standards; and
- (g) 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.

During the pendency of such an appeal, Comprehensive Response Actions, excluding Phase II Comprehensive Site Assessments, shall not be deemed adequately regulated pursuant to 310 CMR 40.0112.

40.0112: continued

(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)

(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 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;
- (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 with respect to conditions of unacceptable release migration, 310 CMR 40.0414;
- (e) the requirements and procedures in 310 CMR 40.0900 and 310 CMR 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 in accordance with 310 CMR 30.633;

40.0113: continued

2. the requirements therein applicable to Response Action Outcome 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 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 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;
- (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 with respect to conditions of Substantial Release Migration, 310 CMR 40.0413;
- (e) the requirements and procedures in 310 CMR 40.0900 and 310 CMR 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;
  2. the requirements therein applicable to Response Action Outcome 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 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.

310 CMR 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 Response Action Outcome 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.
- (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.

40.0150: continued

(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.

##### (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 may establish one or more Interim Deadlines by means of:
  - (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. The Department may also establish an Interim Deadline for the termination of settlement discussion by letter or other written correspondence.
- (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 or 40.0600, including addenda thereto. The published lists may also include, without limitation, the following:
  - (a) any disposal site for which the Department has not received:
    1. a Response Action Outcome Statement;
    2. a Tier Classification Submittal; or
    3. an application for a Tier I Permit, within one year of the earliest date computed in accordance with 310 CMR 40.0404(3) ;
  - (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 Response Action Outcome Statement in compliance with the applicable deadline; and



40.0168: continued

(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 Response Action Outcome 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 310 CMR 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 Response Action Outcome 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.

(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.

40.0169: continued

(3) LSPs shall render Opinions only in accordance with M.G.L. c. 21A, §§ 19 through 19J, 309 CMR 4.00 and 6.00, 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) Except as provided by 310 CMR 40.0170(4), 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) A person who has reason to believe that a Tier I Permit is not required for him or her to undertake a response action may undertake such response action, provided:

(a) his or her performance thereof otherwise complies with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable laws; and

(b) he or she applies for a permit within a reasonable period of time after receiving notice from the Department, or obtaining knowledge, that a permit is required for the response action. For purposes of 310 CMR 40.0170(4), a person will be deemed to have reason to believe that a permit is not required for a response action if he or she:

1. had engaged or employed an LSP to classify the disposal site pursuant to 310 CMR 40.0500; and

2. such LSP, in fact, rendered an LSP Tier Classification Opinion that the disposal site is Tier II; provided, however, that such person did not obtain reason to believe to the contrary after such LSP Opinion was rendered.

(5) 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.

(6) 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.

40.0170: continued

(7) 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.

(8) 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;
- (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.

(9) 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.

(10) 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 and surrender or transfer the Tier I Permit they possess, if any, for the site;
- (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(10); 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 Permit, the Department will stop assessing annual compliance assurance fees upon surrender of such person's Tier I Permit; provided, however, that payment of such fees shall be required for the billable year in which the permit is surrendered. For Tier II sites, 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(10)(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.

(11) 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;

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- (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 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

40.0172: continued

(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).

(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;

40.0173: continued

- (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.

(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 310 CMR 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 310 CMR 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;
- (d) such person is not, and was not at any time, affiliated with any other person (i) who owned or operated the property from which the release described in 310 CMR 40.0183(2)(b) originated, or caused such release, and (ii) 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:
  - 1. that established by any instrument creating such person's interest in the downgradient property; or
  - 2. 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.

(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

40.0183: continued

(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 and 40.0600, 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 310 CMR 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.

(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).



40.0184: continued

(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.

(7) Notwithstanding any provision in 310 CMR 40.0180 to the contrary, any person subject to an administrative consent order, judicial consent decree or Departmental Memorandum of Understanding shall comply with the terms and provisions therewith and the requirements of 310 CMR 40.0670.

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 undertakes reasonable steps to prevent the exposure of human and environmental receptors to oil and/or hazardous material at the downgradient property which is the subject of the Submittal;
- (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 avoids engaging in any activity which could prevent or impede the implementation of reasonably likely response actions in the future.

(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.

40.0186: continued

(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);
- (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), (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.

40.0190: continued

- (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.
- (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 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 and EPA;
  - (b) use of accurate and up-to-date methods, 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
  - (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.

NON-TEXT PAGE

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 310 CMR 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 310 CMR 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.

(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.

40.0302: continued

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 310 CMR 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 310 CMR 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 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 40.1600;

40.0311: continued

- (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 310 CMR 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 310 CMR 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:

- (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; 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 a subsurface Non-Aqueous Phase Liquid (NAPL) having a measured thickness equal to or greater than ½ inch;
- (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, 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 527 CMR 9.00 and 40 CFR Parts 280 and 281, or in connection with the removal or closure of an underground storage tank otherwise regulated by M.G.L. c. 148 or 527 CMR 9.00;
- (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 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 release to the environment indicated by measurement within the groundwater of equal to or greater than five milligrams per liter of total volatile organic compounds at any point located within 30 feet of a school or occupied residential structure, where the groundwater table is less than 15 feet below the surface of the ground; or

40.0313: continued

- (5) a condition of Substantial Release Migration.

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 tank test conducted in conformance with the methodology prescribed for that test which indicates:

- (1) there is a substantial likelihood of a leak equal to or greater than 0.05 gallons per hour in a single walled tank;
- (2) there is a substantial likelihood of a leak equal to or greater than 0.05 gallons per hour in the inner wall of a double-walled tank; or
- (3) there is a substantial likelihood of a leak in the outer wall of a double-walled tank as established by the relevant parameters of that test.

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 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 40.01600; or
- (4) a release to the environment indicated by the presence of a subsurface Non-Aqueous Phase Liquid (NAPL) having a measured thickness equal to or greater than 1/8 inch and less than 1/2 inch.



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, if the releases are completely captured by a properly functioning oil/water separator; provided, however, that releases of oil which exceed the capacity of the oil/water separator, and that releases of oil from the oil/water separator, itself, in excess of its discharge permit limits, 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, 314 CMR 9.00, 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 as indicated by the presence of oil and/or hazardous material in a public water supply source;

40.0317: continued

- (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 from a disposal site in compliance with 310 CMR 40.0000; 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 310 CMR 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;
  - (b) a release notification was previously provided to the Department for the property 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, 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 in concentrations which 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:
  - (a) a disposal site where a Response Action Outcome Statement has been submitted to the Department in compliance with the provisions of 310 CMR 40.1000,
  - (b) 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,
  - (c) a disposal site where the Department has made a written determination that no further actions are required,
  - (d) 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

40.0317: continued

(e) 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 310 CMR 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 chloroform in groundwater attributable to naturally-occurring ecological processes and/or leakage or discharges from a public water supply system; and

(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.

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;
- (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; or
- (c) at any Location to Be Investigated or disposal site subject to the provisions of 310 CMR 40.0600.

(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 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.

40.0318: continued

- (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;
  - (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 of hazardous

40.0321: continued

material in surficial soil (within a depth of 12 inches, but as close to the surface as possible), 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	40
Cadmium (total)	7440439	60
Chromium (VI)/Total Chromium	18540299	200
Cyanide (available)	57125	100
Mercury (total)	7439976	300
Methyl Mercury	22967926	10
PCB (total)	1336363	10

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 40.0321(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 40.0321(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.

(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;

40.0331: continued

- (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.

(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.

40.0332: continued

- (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, inclusive, 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 Response Action Outcome 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 Response Action Outcome 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;
- (c) the date and time the release occurred;
- (d) the set(s) of notification criteria that is the basis for notification;
- (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) a release did not actually occur;
  - (b) 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) Except as provided in 310 CMR 40.0335(7), 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.
- (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.
- (7) The deadline for retracting notifications established by 310 CMR 40.0335(3) shall be extended to the date that is 90 days after the effective date of the first revision to the definition of the term "Potentially Productive Aquifer" in 310 CMR 40.0006 and to 310 CMR 40.0932(5)(b) promulgated after December 15, 1995, provided that the following conditions are met:
  - (a) the groundwater at such disposal site at the time of notification is defined as Category RCGW-1 solely pursuant to 310 CMR 40.0362(1)(a)3. (*i.e.*, such groundwater is defined as RCGW-1 solely because the groundwater is within a Potentially Productive Aquifer); and/or
  - (b) the soil is defined as Category RCS-1 solely pursuant to 310 CMR 40.0361(1)(a)2. (*i.e.*, the soil is defined as RCS-1 solely due to its location above groundwater that meets the requirements of 310 CMR 40.0362(1)(a), and such groundwater is defined as Category RCGW-1 solely pursuant to the requirements of 310 CMR 40.0362(1)(a)3.).



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.

NON-TEXT PAGE

40.0336: continued

- (2) Persons who received a Notice of Responsibility pursuant to 310 CMR 40.0336(1) who believe:
- (a) they are 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 exist; 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, shall submit notice of the same to the Department within 60 days of receipt of such Notice of Responsibility.

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.
- (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 60E C [approximately 140E F]. 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;

40.0347: continued

- (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 55E C; 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.
- (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 30.125B, unless specifically excluded.

40.0347: continued

(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. 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.

(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 30.125B 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 30.125B, 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.

40.0352: continued

(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 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 30.125B, 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.

(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.

40.0360: continued

(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 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", or any other appropriate analytical procedure, as described in 310 CMR 40.0017, and where there is greater than a 95% probability that the reported analyte is present at or above the Reportable Concentration.

(5) 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.

(6) 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;
- (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;
- (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.

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.
- (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 Response Action Outcome, as described in 310 CMR 40.1000, is not achieved at a site based upon Preliminary Response Actions.
- (5) A Response Action Outcome 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 Response Action Outcome 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 and disposal sites, Locations To Be Investigated subject to the Transition Provisions of 310 CMR 40.0600, and disposal sites meeting the criteria in 310 CMR 40.0501(8), a Response Action Outcome 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 "2 Hour" or "72 Hour" notification provisions of 310 CMR 40.0311 through 310 CMR 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;
  - (c) the date that any person listed at 310 CMR 40.0331 obtains oral approval from the Department to conduct a Release Abatement Measure at a disposal site as a continuation of a Limited Removal Action, as specified in 310 CMR 40.0443(4); or
  - (d) 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;
  - (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;

40.0405: continued

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 Response Action Outcome 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 Response Action Outcome 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 Response Action Outcome 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.

(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 "Class A" Response Action Outcome Statement shall be submitted to the Department, as described in 310 CMR 40.1000, indicating that remedial actions taken at the site have resulted in a Permanent Solution;
  - (b) a "Class B" Response Action Outcome Statement shall be submitted to the Department, as described in 310 CMR 40.1000, indicating that remedial actions are not necessary because a condition of No Significant Risk already exists at the site; or
  - (c) a Phase I Report and Tier Classification Submittal shall be submitted to the Department, in accordance with the provisions of 310 CMR 40.0500, along with a Tier I Permit application, if necessary, and as set forth in 310 CMR 40.0700, indicating that a Comprehensive Response Action will be undertaken at the site.
- (2) Response Action Outcome Statements submitted to the Department at the conclusion of Preliminary Response Actions, and prior to Tier Classification, shall be accompanied by the Response Action Outcome fee specified in 310 CMR 4.00, unless the Response Action Outcome 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.
- (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.

40.0411: continued

(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.

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) disposal sites where a condition of Substantial Release Migration has been identified; 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 310 CMR 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
- (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:

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- (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).

NON-TEXT PAGE



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(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;
- (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 cap or engineered barrier that is constructed in accordance with the performance standards contained in 310 CMR 40.0996(4) 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.

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- (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 "2 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 an RP, PRP, or Other Person obtains knowledge of one or more of the conditions of Substantial Release Migration specified in 310 CMR 40.0413;
  - (d) 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
  - (e) 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.
- (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:

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- (a) within 60 days of providing oral notification to the Department of those "2 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 Response Action Outcome 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.

40.0421: continued

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;

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- (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.

(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: Status Reports on Immediate Response Actions

(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) 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.

(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 Wastewater and/or Remedial Additives;
- (d) monitoring data related to the operation of remedial systems, including treatment works discharging Remedial Wastewater, where applicable;
- (e) any other information required by the Department in its approval of the Immediate Response Action Plan; and
- (f) 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 Response Action Outcome 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) Immediate Response Action Status Reports shall be submitted to the Department using a transmittal form established by the Department for such purposes.

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.
- (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 310 CMR 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 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, pending the completion of any necessary Comprehensive Response Actions; and
- (c) the elimination, prevention or mitigation of Critical Exposure Pathway(s) without the continued operation and maintenance of active remedial systems, pending the completion of a risk assessment pursuant to 310 CMR 40.0900 and a feasibility study pursuant to 310 CMR 40.0860.

(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 Response Action Outcome 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.

(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

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(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) Immediate Response Action Completion Reports shall not require approval from the Department, but shall be subject to auditing by the Department, as described in 310 CMR 40.1100.

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), 40.1403(3)(c), 40.1403(3)(f), 40.1403(5) and 40.1403(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 "Class A" or "Class B" Response Action Outcome 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 releases until such time as a Response Action Outcome is achieved, as described in 310 CMR 40.1000, or until Comprehensive Remedial Actions can be implemented, as described in 310 CMR 40.0800.

(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.



40.0441: continued

- (3) An RP, PRP or Other Person may propose to the Department to conduct a Release Abatement Measure at a disposal site at any time following notification to the Department of a release or threat of release pursuant to 310 CMR 40.0300.
- (4) 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.
- (5) Release Abatement Measures shall comply with all 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 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.

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(3) A cap or engineered barrier, as defined in 310 CMR 40.0996(4), 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.

(4) 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 photocopy of the check mailed to the appropriate address, in cases where a fee is specified pursuant to 310 CMR 4.00.

(2) Subsequent to the receipt by the Department of a complete RAM Plan, unless otherwise specified by the Department in writing, 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, plans and/or sketches of the site and any proposed investigative and/or remedial installations;

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- (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;
- (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(4), if greater than 1500 cubic yards of Remediation Wastes are to be excavated 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. No fee is required for Release Abatement Measure Plans submitted to the Department:

- (a) after Tier Classification of the disposal site;
- (b) for a priority disposal site conducting response actions in compliance with the provisions of 310 CMR 40.0640; or
- (c) for a disposal site with an approved Waiver.

(3) Release Abatement Measure Plans shall be submitted to the Department using a transmittal form established by the Department for such purposes.

40.0445: Status Reports on Release Abatement Measures

- (1) Persons conducting Release Abatement Measures shall submit a Status Report to the Department 120 days following oral, written or presumed approval of the Release Abatement Measure, whichever occurred sooner, or, in cases where approval is not required, 120 days following receipt by the Department of a complete 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.
- (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 Wastewater and/or Remedial Additives;
  - (d) monitoring data from the operation of remedial systems, including treatment works discharging Remedial Wastewater where applicable;
  - (e) 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
  - (f) 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 Response Action Outcome 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.

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) A Release Abatement Measure Completion Report shall not be required for sites where a Response Action Outcome Statement, as described in 310 CMR 40.1000, is submitted to the Department within 120 days of obtaining oral, written, or presumed approval from the Department to conduct the Release Abatement Measure, whichever occurred sooner.
- (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

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(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) Release Abatement Measure Completion Reports are not subject to approval by the Department, but shall be subject to auditing by the Department, as set forth in 310 CMR 40.1100.

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 "Class A" Response Action Outcome 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 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.
- (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.

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 or in writing 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.

40.0462: continued

(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).

(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 310 CMR 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: Status Reports on Utility-related Abatement Measures

- (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.
- (2) Utility-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 Wastewater and/or Remedial Additives;
  - (d) monitoring data from the operation of remedial systems, including treatment works discharging Remedial Wastewater where applicable;
  - (e) 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
  - (f) 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.

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.



40.0466: continued

(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:

- (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 "Class A" Response Action Outcome 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 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

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(b) where appropriate, support a Response Action Outcome 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 Numerical Ranking System and Tier Classification process described in 310 CMR 40.0500 or, where appropriate, support a Response Action Outcome 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 310 CMR 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 of the disposal site and/or properties comprising the disposal site, including latitude/longitude and Universal Transverse Mercator (UTM) coordinates (in meters) of 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;

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- 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:
  - 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, 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.

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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:
    - 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 the presence and thickness of non-aqueous phase liquids, if encountered.
- (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, including migration along preferential flow pathways such as subsurface utility lines; and/or
    - d. 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..

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(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, and shall indicate 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 Response Action Outcome 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;
- (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 40.1403(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 "Class A" or "Class B" Response Action Outcome have been met, pursuant to the provisions of 310 CMR 40.1000, and a Response Action Outcome 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 the rendering of LSP Tier Classification Opinions, and deadlines for completing response actions at disposal sites. LSP Tier Classification Opinions 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 disposal sites, including, but not limited to, requirements for re-scoring such disposal sites and submittal requirements. For Tier I disposal sites, the specific deadlines for RPs, PRPs and Other Persons to achieve a Response Action Outcome pursuant to 310 CMR 40.1000 are determined in accordance with 310 CMR 40.0550 and any other applicable deadlines established in a Tier I Permit issued pursuant to 310 CMR 40.0700.

(2) 310 CMR 40.0500 also establishes requirements and procedures for the performance of response actions at Tier II disposal sites, including, but not limited to, requirements for re-scoring such disposal sites and submittal requirements. For Tier II disposal sites, the specific deadlines for RPs, PRPs and Other Persons to achieve a Response Action Outcome are determined in accordance with 310 CMR 40.0560.

(3) Except as provided in 310 CMR 40.0501(4), 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 and, if applicable, a Tier I Permit application 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(3) with respect to any specific disposal site, the earliest of the applicable deadlines shall apply for the purposes of Tier Classification.

(4) Notwithstanding any provision of 310 CMR 40.0501(3) 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, and, if applicable, a Tier I Permit Application, if such RP, PRP or Other Person submits either a Response Action Outcome 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).

(5) Any person undertaking response actions at a Location To Be Investigated, unclassified disposal site, or non-priority disposal site without a Waiver listed in the 1993 Transition List, or any addendum thereto, shall submit to the Department a Tier Classification Submittal by the applicable deadline established by the Transition Provisions, 310 CMR 40.0600.

(6) 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.

(7) 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 prohibited by the Department.

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 Response Action Outcome Statement; or
    2. a Tier Classification Submittal and, if applicable, a Tier I Permit Application;
  - (b) such disposal site had been categorically classified as Tier IB before June 27, 2003 pursuant to 310 CMR 40.0600 or as a result of the failure of an RP, PRP, or Other Person to submit one of the following by the applicable deadline:
    1. a Response Action Outcome Statement;
    2. a Tier Classification Submittal, and, if applicable, a Tier I Permit Application; or
  - (c) 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 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)(a) or (b) shall Tier Classify such disposal site pursuant to the requirements at 310 CMR 40.0510.
- (4) Any disposal site deemed Tier ID by the Department pursuant to 310 CMR 40.0502(c) 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, then the RP, PRP, or Other Person shall classify the disposal site pursuant to 310 CMR 40.0510 when the Department determines that the RP, PRP, or Other Person has addressed the non-compliance.
- (5) Notwithstanding 310 CMR 40.0502(1)(b), for the purpose of assessing annual compliance assurance fees in accordance with 310 CMR 4.00 for billable years prior to June 27, 2003, each disposal site for which the Department does not receive a Response Action Outcome Statement, or a Tier Classification Submittal, and, if applicable, an application for a Tier I Permit by the applicable deadline for Tier Classification shall be categorically classified as a Tier IB disposal site on the date of the applicable deadline if such deadline is prior to June 27, 2003.

40.0510: Tier Classification Process

- (1) The Tier Classification process consists of:
  - (a) the completion of a Phase I Report in accordance with 310 CMR 40.0480;
  - (b) the completion of a Numerical Ranking System Scoresheet in accordance with 310 CMR 40.1500;
  - (c) a comparison of conditions at a disposal site with the Tier I Inclusionary Criteria set forth in 310 CMR 40.0520(2);
  - (d) the preparation and filing with the Department of a Tier Classification Submittal in accordance with 310 CMR 40.0510(2); and
  - (e) the public involvement activities relevant to Tier Classification, including, but not limited to, those activities set forth in 310 CMR 40.1403(3) and 40.1403(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.
- (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;

40.0510: continued

- (b) an LSP Tier Classification Opinion;
  - (c) the certification required by 310 CMR 40.0009;
  - (d) the certification required by 310 CMR 40.0540(1) for a Tier II disposal site; such certification shall be provided in a Permit Application pursuant to 310 CMR 40.0703(9) for a Tier I disposal site;
  - (e) the compliance history required by 310 CMR 40.0540(2) for a Tier II disposal site; such compliance history shall be provided in a Permit Application pursuant to 310 CMR 40.0703(9) for a Tier I disposal site; and
  - (f) one of the following:
    - 1. a Phase II Scope of Work completed in accordance with 310 CMR 40.0834; or
    - 2. a Conceptual Scope of Work that, at a minimum, includes:
      - a. a general plan for assessing contaminants of concern, potential receptors and potential exposure pathways, identifying the likely technical approach(es) to be used;
      - b. a projected schedule that includes interim milestones; and
      - c. an estimate of the cost.
- (3) An LSP Tier Classification Opinion shall consist of:
- (a) a completed Phase I Report, as described in 310 CMR 40.0480;
  - (b) a Numerical Ranking System (NRS) Scoresheet completed in accordance with 310 CMR 40.1500;
  - (c) on the basis of the Tier I Inclusionary Criteria or the score a disposal site receives using the Numerical Ranking System, an LSP Opinion as to whether a disposal site should be classified by the Department as Tier I or Tier II; and if such LSP Opinion indicates that a disposal site should be classified by the Department as Tier I, an LSP Opinion as to whether such disposal site should be categorized as Tier IA, Tier IB or Tier IC for the purposes of permitting pursuant to 310 CMR 40.0700; and
  - (d) 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.
- (4) In the event that an LSP Tier Classification Opinion indicates that, on the basis of the Tier I Inclusionary Criteria or the disposal site's NRS score, a disposal site should be classified as Tier I, the person submitting the Tier Classification Submittal shall include therein a completed application for a Tier I Permit in accordance with 310 CMR 40.0700.
- (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 shall apply unless and until the RP, PRP or Other Person submits a revised NRS Scoresheet and Tier Classification to the Department pursuant to 310 CMR 40.0530 that reclassifies the disposal site 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 Scoring.
  - (a) Any person performing Tier Classification for a disposal site shall score such disposal site using the Numerical Ranking System described in 310 CMR 40.1500. The disposal site score shall be based upon data, facts and other information obtained during Phase I, and any other relevant data, facts or information known by the person performing Tier Classification, including, but not limited to, any data, facts or information obtained during a Phase II - Comprehensive Site Assessment, if Phase II work has been performed at such disposal site.
  - (b) 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.



40.0520: continued

(c) Any person performing Tier Classification may account for risk reduction measures, if any, that have been completed at the disposal site pursuant to 310 CMR 40.0400 prior to performing such Tier Classification, including Immediate Response Actions, Release Abatement Measures and Utility-related Abatement Measures.

(2) Tier I Inclusionary Criteria.

(a) Any disposal site which meets any of the following criteria shall be categorically classified as Tier I, regardless of the score such disposal site receives using the Numerical Ranking System:

1. any disposal site at which:

- 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 at the time of Tier Classification, and
- b. such groundwater is located within an Interim Wellhead Protection Area or Zone II; or

2. any disposal site at which an Imminent Hazard is present at the time of Tier Classification.

(b) Any disposal site that is classified as Tier I only because such disposal site meets the criteria set forth in 310 CMR 40.0520(2)(a)2. may be reclassified as Tier II pursuant to 310 CMR 40.0530 once the Imminent Hazard is no longer present at the disposal site.

(c) For the purpose of assessing annual compliance assurance fees in accordance with 310 CMR 4.00 for billable years prior to June 27, 2003, each disposal site for which the Department does not receive one of the following by the applicable deadline for Tier Classification shall be categorically classified as a Tier IB disposal site on the date of the applicable deadline if such deadline is prior to June 27, 2003.

1. a Response Action Outcome Statement, or

2. a Tier Classification Submittal, and, if applicable, an application for a Tier I Permit.

(d) Each disposal site for which the deadline for Tier Classification pursuant to 310 CMR 40.0501(3) is prior to February 1, 1995, and for which the Department has not received a Tier Classification Submittal or a Response Action Outcome Statement by February 24, 1995, shall be categorically classified as Tier IB, effective February 24, 1995.

(3) NRS Cut-off Scores. The score a disposal site receives using the Numerical Ranking System shall serve as the basis for the LSP Tier Classification Opinion as follows:

(a) any disposal site receiving a total score equal to or greater than 550 shall be considered Tier IA;

(b) any disposal site receiving a total score less than 550 and equal to or greater than 450 shall be considered Tier IB;

(c) any disposal site receiving a total score less than 450 and equal to or greater than 350 shall be considered Tier IC; and

(d) any disposal site receiving a total score of less than 350 shall be considered Tier II, unless such disposal site meets any of the Tier I Inclusionary Criteria specified in 310 CMR 40.0520(2)(a), in which case the disposal site shall be considered Tier IC.

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 Numerical Ranking System and the Tier I Inclusionary Criteria specified in 310 CMR 40.0520(2)(a)1. if he or she obtains new or additional data, facts or other information which is reasonably likely to result in a finding that would cause reclassification of the disposal site from Tier II to Tier I, from Tier IC to Tier IA or Tier IB, or, from Tier IB to Tier IA.

(2) An RP, PRP or Other Person performing response actions at a Tier II disposal site that receives a total score equal to or greater than 350 or meets the Tier I Inclusionary Criteria upon re-evaluating the disposal site shall submit to the Department a Tier Classification Submittal and an application for a Tier I Permit in accordance with 310 CMR 40.0700 within 60 days of obtaining knowledge of such score.

40.0530: continued

- (3) An RP, PRP or Other Person performing response actions at a Tier IC disposal site that receives a total score equal to or greater than 450 upon re-evaluating the disposal site shall submit an application to the Department for a Major Modification of a Tier I Permit in accordance with 310 CMR 40.0707 to upgrade the permit category to Tier IB or Tier IA within 60 days of obtaining knowledge of such score.
- (4) An RP, PRP or Other Person performing response actions at a Tier IB disposal site that receives a total score equal to or greater than 550 upon re-evaluating the disposal site shall submit an application to the Department for a Major Modification of a Tier I Permit in accordance with 310 CMR 40.0707 to upgrade the permit category to Tier IA within 60 days of obtaining knowledge of such score.
- (5) An RP, PRP or Other Person may downgrade the Tier Classification category of a disposal site after re-evaluating the disposal site pursuant to 310 CMR 40.0530. To do so, an RP, PRP or Other Person for a Tier IA, Tier IB or Tier IC disposal site shall submit a revised Tier Classification Submittal and an application for a Major Permit Modification to the Department in accordance with 310 CMR 40.0707.
- (6) 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 original deadlines applicable to such disposal site as detailed in 310 CMR 40.0550(1) and (2) or 310 CMR 40.0560(1) and (2), as they originally applied.

40.0540: Demonstration of Ability and Willingness

- (1) Each person filing a Tier Classification Submittal for a Tier II disposal site 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 II 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.
- (3) Each person filing a Tier Classification Submittal for a Tier I disposal site shall provide the certifications required with a Tier I Permit Application in accordance with 310 CMR 40.0703(9).

40.0550: Response Action Deadlines and Requirements for Tier I Disposal Sites

(1) Deadlines for Response Action Outcomes. Except as expressly provided by 310 CMR 40.0530(6) or 310 CMR 40.0000 or as otherwise ordered or agreed to in writing by the Department, any person undertaking response actions at a Tier I disposal site pursuant to a Tier I Permit, as described in 310 CMR 40.0700, shall achieve a Response Action Outcome pursuant to 310 CMR 40.1000 within five years of the effective date of such permit.

(2) Deadlines for Submittals. Except as expressly provided by 310 CMR 40.0530(6), 310 CMR 40.0550(3), or 310 CMR 40.0000, or as otherwise ordered or agreed to in writing by the Department, any person undertaking response actions at a Tier I disposal site pursuant to a Tier I Permit shall submit the following documents to the Department by the following deadlines:

- (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) Phase II Report, and, if applicable, a Phase III Remedial Action Plan within two years of the effective date of such permit;
- (c) a Phase IV Remedy Implementation Plan within three years of the effective date of such permit;
- (d) a Response Action Outcome Statement pursuant to 310 CMR 40.1000 within five years of the effective date of such permit; and
- (e) any other submittal as required by the terms and conditions of a Tier I Permit pursuant to 310 CMR 40.0740.

(3) Notwithstanding any provision of 310 CMR 40.0550(2) to the contrary, submittal to the Department of those documents described in 310 CMR 40.0550(2)(a) through (c) shall not be required at any disposal site for which a Response Action Outcome Statement is submitted to the Department prior to an applicable document submittal deadline.

(4) Approvals for Tier I Disposal Sites.

- (a) Except as provided in 310 CMR 40.0550(4)(b), an RP, PRP or Other Person undertaking response actions at a Tier I disposal site pursuant to a Tier I Permit may perform the response actions which are the subject of the submittals required by 310 CMR 40.0550(2) without the Department's prior approval thereof.
- (b) Notwithstanding 310 CMR 40.0550(4)(a), the Department may at any time require an RP, PRP or Other Person undertaking response actions at a Tier I disposal site to obtain prior Departmental approval of one or more of the submittals specified by 310 CMR 40.0550(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.

(5) Notification of Delay in Compliance With Deadlines for Tier IA, Tier IB and Tier IC Disposal Sites. Except as provided by 310 CMR 40.0025 and 40.0167, the RP, PRP or Other Person performing response action shall notify the Department in writing prior to missing any of the following deadlines or time periods, and state the reason for such delay, the measure or measures to be taken to minimize the delay, the schedule for implementing those measures, and shall take appropriate measures to minimize any delay in compliance with any deadline or time period required by 310 CMR 40.0550(2), in conditions in a Permit issued pursuant to 310 CMR 40.0700, or any other determination or deadline for response actions set forth in writing by the Department.

Providing such notice does not forgive an RP's, PRP's or Other Person's noncompliance with deadlines for response actions in 310 CMR 40.0000.

(6) Notifications. After permitting pursuant to 310 CMR 40.0700, an RP, PRP or Other Person for a Tier IA, Tier IB or Tier IC disposal site shall make the following notifications to the Department within the following timeframes:

- (a) notification of the commencement of initial field activities related to the implementation of Comprehensive Response Actions at least seven days prior to their initiation. 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; and

40.0550: continued

- (b) any other notifications specified in a Tier I Permit within the required timeframes.

40.0560: Response Action Deadlines and Requirements for Tier II Disposal Sites

(1) Deadlines for Response Action Outcomes. Except as expressly provided by 310 CMR 40.0530(6) or 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 Tier II disposal site shall achieve a Response Action Outcome within five years of the effective date of initial Tier Classification.

- (a) A Tier II Classification for a disposal site 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 II Classification has expired unless a Tier II Classification Extension is obtained pursuant to 310 CMR 40.0560(7).

(2) Deadlines for Submittals. Except as provided by 310 CMR 40.0530(6), 310 CMR 40.0560(3), or 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 Tier II disposal site shall submit the following documents to the Department by the following deadlines:

- (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, and, if applicable, a Phase III Remedial Action Plan, within two years of the effective date of Tier Classification;

- (c) a Phase IV Remedy Implementation Plan within three years of the effective date of Tier Classification; and

- (d) a Response Action Outcome Statement pursuant to 310 CMR 40.1000 within five years of the effective date of Tier Classification.

(3) Notwithstanding any provision of 310 CMR 40.0560(2) to the contrary, submittal to the Department of those documents described in 310 CMR 40.0560(2)(a) through (c) shall not be required at any disposal site for which a Response Action Outcome Statement is submitted to the Department prior to an applicable document submittal deadline.

(4) Approvals and Notice.

- (a) Except as provided in 310 CMR 40.0560(4)(b), an RP, PRP or Other Person undertaking response actions at a Tier II disposal site 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 II 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 the disposal site or to some portion thereof.

- (c) No person shall perform Phase IV response actions at a Tier II disposal site unless and until 20 days have passed from the date of publication of the notice required by 310 CMR 40.1403(6).

(5) Notification of Delay in Compliance With Deadlines for Tier II Disposal Sites. Except as provided by 310 CMR 40.0025 or 40.0167, if any delay in compliance with any deadline or time period required by 310 CMR 40.0560(2) occurs after a disposal site is classified as Tier II, the RP, PRP or Other Person performing response action shall notify the Department in writing prior to missing any such deadline or time period, and 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, and shall take appropriate measures to minimize the delay. Providing such notice does not forgive an RP's, PRP's or Other Person's noncompliance with deadlines for response actions in 310 CMR 40.0000.

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(6) Notifications. RPs, PRPs or Other Persons conducting response actions at Tier II disposal sites shall make the following notifications to the Department within the following timeframes. Notification of the commencement of initial field activities related to the implementation of Comprehensive Response Actions at least seven days prior to their initiation. 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 II Classification Extensions.

(a) If a Response Action Outcome Statement indicating that a Temporary or Permanent Solution has been achieved has not been submitted to the Department for a Tier II disposal site prior to the expiration of the Tier II Classification, the person undertaking response actions at such site shall extend the Tier II Classification by submitting a Tier II Extension Submittal to the Department.

(b) The Tier II Extension Submittal shall be provided to the Department at least 45 days before the date of expiration of the Tier II Classification.

(c) The Tier II Extension 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 explaining why a Temporary or Permanent Solution 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 Class C Response Action Outcome at the disposal site pursuant to 310 CMR 40.1000 within one year of the effective date of the Tier II 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 Tier II Classification; and
6. an LSP Opinion indicating that the plans and/or reports submitted are in conformance with the requirements of 310 CMR 40.0000.

(d) A Tier II Classification Extension shall take effect 45 days after submission of a complete Tier II Extension Submittal to the Department unless the Department issues a written denial for such extension prior to the termination of such 45 day time period. The extension shall be effective for a period of one year beyond the effective date of the Tier II Classification Extension. An RP, PRP or Other Person shall notify the Department pursuant to this section if additional extensions are required on an annual basis thereafter; and

(e) The Department reserves the right to reconsider the need for Departmental oversight or to initiate enforcement actions related to any Tier II Extension Submittal or when any timeline for achieving an RAO pursuant to 310 CMR 40.0560 is exceeded; and

(f) A Tier II Extension obtained under 310 CMR 40.0560(7) does not forgive an RP's, PRP's or Other Person's noncompliance with any provisions of 310 CMR 40.0000, including but not limited to, noncompliance that resulted from the late submittal or failure to submit an IRA Plan, Status Report, Phase I Report, Tier Classification, Phase II Report, Phase III Remedial Action Plan, Phase IV Remedy Implementation Plan, and/or failure to achieve a Response Action Outcome. A Tier II Extension 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 shall not be construed as approval by the Department of the scope or adequacy of plans or of the response actions as actually conducted.

(8) Changes in Persons Undertaking Response Actions at Tier II Disposal Sites.

(a) No person other than a person who has filed a Tier II Classification Submittal for a disposal site with the Department may perform Comprehensive Response Actions at such disposal site, unless that person submits a Tier II Transfer Submittal to the Department.

(b) A Tier II Transfer Submittal shall consist of the following:

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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 II Classification or Waiver of Approvals;
  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 these regulations.
- (c) A change in persons conducting response actions at a Tier II disposal site shall take effect 45 days after submission of a complete Tier II Transfer Submittal to the Department unless the Department issues a written denial of such transfer prior to the termination of such 45 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 II Transfer Submittal or when any timeline for achieving an RAO pursuant to 310 CMR 40.0560 at a Tier II disposal site is not met.

40.0580: Periodic Evaluation of Temporary Solutions at Tier I and Tier II Disposal Sites

- (1) At any Tier I or Tier II disposal site where a Temporary Solution has been implemented and a Class C RAO Statement or a Waiver Completion Statement indicating that a Temporary Solution has been achieved has been submitted to the Department, the RP, PRP or Other Person shall undertake a periodic evaluation of the Temporary Solution and shall submit to the Department an LSP Periodic Review Opinion evaluating the status of the Temporary Solution not less than every fifth year after the date of filing of such Class C Response Action Outcome Statement or Waiver Completion Statement.
- (2) If a Class C Response Action Outcome Statement or Waiver Completion Statement indicating that a Temporary Solution has been achieved has been filed with the Department for a disposal site, neither a Permit Extension nor a Tier II Classification Extension shall be required solely to perform a periodic evaluation of the Temporary Solution at such disposal site, unless otherwise required by the Department.
- (3) Content of a Periodic Review Opinion for a Temporary Solution Evaluation. The LSP Periodic Review Opinion required by 310 CMR 40.0580(1) shall address the following:
- (a) the effectiveness of the Temporary Solution(s);
  - (b) 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;
  - (c) if applicable, an evaluation of an Activity and Use Limitation pursuant to 310 CMR 40.1080;
  - (d) any necessary and required response actions to maintain the Temporary Solution and, if applicable, the Activity and Use Limitation, in the event that the Temporary Solution and/or the Activity and Use Limitation is no longer maintaining No Significant Risk for the disposal site; such response actions shall be initiated pursuant to 310 CMR 40.0581 or 40.0582, whichever is applicable;
  - (e) the feasibility of implementing one or more Permanent Solutions for the disposal site pursuant to 310 CMR 40.0861(2)(h); and
  - (f) the certification required in 310 CMR 40.0009.

40.0581: Conducting Response Actions at a Tier I Disposal Site After a Response Action Outcome has been Submitted to the Department

- (1) Each person who intends to conduct any of the response actions listed below shall either conduct such response actions in accordance with an effective Tier I Permit or obtain a Permit Extension from the Department in accordance with 310 CMR 40.0703 and 40.0706:
- (a) implement a Permanent Solution at a Tier I disposal site after a Class C Response Action Outcome Statement has been submitted to the Department;

40.0581: continued

- (b) implement response actions pursuant to 310 CMR 40.1080 at a disposal site where an Activity and Use Limitation is in place in order to maintain No Significant Risk;
- (c) conduct further response actions at a disposal site where an Activity and Use Limitation is in place in order to withdraw such Limitation in order to allow certain site uses or activities which are prohibited pursuant to the existing Activity and Use Limitation; or
- (d) implement response actions after a Periodic Evaluation conducted pursuant to 310 CMR 40.0580(1) reveals that more substantial response actions are required to maintain the Temporary Solution at such disposal site other than those that may be conducted for normal maintenance of the Class C RAO pursuant to a post-Class C RAO Operation, Maintenance and/or Monitoring Plan pursuant to 310 CMR 40.0896.

(2) Each person who intends to conduct response actions pursuant to 310 CMR 40.0581(1) in accordance with an effective Tier I Permit shall notify the Department in writing of such intent prior to implementing such actions.

(3) Each person who intends to conduct response actions pursuant to 310 CMR 40.0581(1) shall submit with the Tier I Permit Extension required by 310 CMR 40.0581(1) or the notice described in 310 CMR 40.0581(2), whichever is applicable, those reports, plans and proposed schedules required for such response actions pursuant to 310 CMR 40.0581(1).

(4) The Department will assess the applicable annual compliance assurance fee in accordance with 310 CMR 4.00 upon approval of any Tier I Permit Extension required by 310 CMR 40.0581(1) or upon receipt of the notice required by 310 CMR 40.0581(2), whichever is applicable.

40.0582: Conducting Response Actions at a Tier II Disposal Site after a Response Action Outcome has been Submitted to the Department

(1) A person who intends to conduct any of the response actions listed below shall either conduct such response actions in accordance with an effective Tier II Classification or obtain a Tier II Classification Extension pursuant to 310 CMR 40.0560(7):

- (a) implement a Permanent Solution at a Tier II disposal site after a Class C Response Action Outcome Statement has been submitted to the Department;
- (b) implement response actions pursuant to 310 CMR 40.1080 at a disposal site where an Activity and Use Limitation is in place in order to maintain No Significant Risk;
- (c) conduct further response actions at a disposal site where an Activity and Use Limitation is in place in order to withdraw such Limitation in order to allow certain site uses or activities which are prohibited pursuant to the existing Activity and Use Limitation; or
- (d) implement response actions after a Periodic Evaluation conducted pursuant to 310 CMR 40.0582(1) reveals that more substantial response actions are required to maintain the Temporary Solution at such disposal site other than those that may be conducted for normal maintenance of the Class C RAO pursuant to a post-Class C RAO Operation, Maintenance and/or Monitoring Plan pursuant to 310 CMR 40.0896.

(2) Each person who intends to conduct response actions pursuant to 310 CMR 40.0582(1) and who is not the person who submitted the applicable RAO for the disposal site shall comply with the provisions of 310 CMR 40.0560(8) prior to implementing such response actions.

(3) Each person who intends to conduct response actions pursuant to 310 CMR 40.0582(1) in accordance with an effective Tier II Classification shall notify the Department in writing of such intent prior to implementing such actions.

(4) Each person who intends to conduct response actions pursuant to 310 CMR 40.0582(1) shall submit with the Tier II Extension Submittal required by 310 CMR 40.0582(1) or the notice described in 310 CMR 40.0582(3), whichever is applicable, those reports, plans and proposed schedules required for such response actions pursuant to 310 CMR 40.0582(1).

40.0582: continued

(5) The Department will assess Tier II annual compliance assurance fees in accordance with 310 CMR 4.00 upon receipt of any Tier II Extension Submittal required by 310 CMR 40.0582(1) or upon receipt of the notice required by 310 CMR 40.0582(3), whichever is applicable.

40.0583: Department Reclassification of a Tier Classified Disposal Site

(1) General. The Department may, on its own initiative, reclassify a Tier IA, Tier IB, Tier IC, 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 site classification.

(3) Criteria. The Department shall consider the criteria in 310 CMR 40.0730(1) 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 legal notice in a newspaper which circulates in the community(ies) in which the disposal site is located and in any newspapers which circulate in any other community(ies) the Department believes are likely to be affected by the disposal site;
- (b) by mail or hand delivery of a copy of the legal 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 to any person the Department reasonably believes:
  1. is an RP or a PRP for the disposal site;
  2. if applicable, is the permittee of a Tier Classified disposal site;
  3. holds title to, or an ownership interest in any real property comprising the disposal site or 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), and the permit number;
- (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 310 CMR 1.00; 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) and 40.1406(3).



SUBPART F: TRANSITION PROVISIONS

40.0600: Transition Provisions

310 CMR 40.0601 through 40.0699, cited collectively as 310 CMR 40.0600, sets forth the requirements for RPs, PRPs and Other Persons with disposal sites and Locations To Be Investigated (LTBIs) identified on the Transition List of Confirmed Disposal Sites and Locations To Be Investigated (the 1993 Transition List) and any addendum thereto, published by the Department in accordance with M.G.L. c. 21E, § 3A(a) and 310 CMR 40.0168(1).

40.0601: Scope and General Provisions

(1) The 1993 Transition List and 310 CMR 40.0600 shall be referenced by RPs, PRPs and Other Persons to determine the status of listed disposal sites and LTBIs and the deadlines for undertaking response actions at such disposal sites and locations pursuant to 310 CMR 40.0000. The applicable deadline for an RP, PRP or Other Person to submit an LSP Evaluation Opinion or statement in accordance with 310 CMR 40.0610, 40.0620, and 40.0636 shall be based upon the date such site was first listed on any Department "List of Confirmed Disposal Sites and Locations To Be Investigated" in the same category in which it is listed on the 1993 Transition List.

(2) Notwithstanding the deadlines set forth in 310 CMR 40.0600, the Department may establish Interim Deadlines for RPs, PRPs and Other Persons to submit LSP Evaluation Opinions pursuant to 310 CMR 40.0600 and/or to conduct response actions at LTBIs or disposal sites. The Department may require RPs, PRPs and Other Persons to submit LSP Evaluation Opinions and/or conduct response actions for specific disposal sites or LTBIs on a case-by-case basis earlier than the deadline applicable pursuant to 310 CMR 40.0610, 40.0620, or 40.0636.

(3) An RP, PRP or Other Person who is conducting or continues to conduct response actions at a disposal site or Location To Be Investigated subject to the Transition Provisions on or after October 1, 1993, shall conduct such response actions in accordance with the applicable requirements of 310 CMR 40.0600.

(4) Notwithstanding the deadlines set forth in 310 CMR 40.0610(3), 40.0620(3), and 40.0636(3), releases and threats of release of oil and/or hazardous material which require a "2 Hour" or "72 Hour" notification pursuant to 310 CMR 40.0311 through 40.0314 shall be made to the Department within the applicable timeframes specified in 310 CMR 40.0311 through 40.0314.

(5) Any LSP Evaluation Opinion submitted to the Department pursuant to 310 CMR 40.0600 shall be submitted on a form established by the Department for such purposes.

(6) Additional Transition Provision for Certain LTBIs, Unclassified Sites and Non-priority Disposal Sites without Waivers. Except as provided by 310 CMR 40.0601(2), the deadline of August 2, 1995, and the deadline of August 2, 1996, specified in 310 CMR 40.0610(3), 40.0620(3), and 40.0636(3), for submittal of a Tier Classification Submittal, an LSP Evaluation Opinion, a Response Action Outcome Statement or a statement affirming the conclusions in a previously filed Phase I Report, whichever is applicable, shall be extended to the date that is 90 days after the effective date of the first revision to the definition of the term "Potentially Productive Aquifer" in 310 CMR 40.0006 and to 310 CMR 40.0932(5)(b) promulgated after December 15, 1995, provided that the following conditions are met:

(a) Such applicable deadline shall be extended where:

1. The groundwater at such location or disposal site is defined as Category GW-1 solely because it is within a Potentially Productive Aquifer pursuant to 310 CMR 40.0932(4)(b); and/or
2. The soil at such location or disposal site lies above groundwater which is defined as GW-1 solely because the groundwater is within a Potentially Productive Aquifer pursuant to 310 CMR 40.0932(4)(b).

(b) To extend a deadline based on the conditions of 310 CMR 40.0601(6), the RP, PRP or Other Person subject to the deadline shall submit a written statement to the Department on or before such deadline, indicating his or her intention to submit a Tier Classification Submittal, an LSP Evaluation Opinion, a Response Action Outcome Statement, or a statement affirming the conclusions in a previously filed Phase I Report (as appropriate) by the extended deadline.

NON-TEXT PAGE

40.0602: Incorporation of 310 CMR 40.000 by Reference in the Transition Provisions.

310 CMR 40.000, the Massachusetts Contingency Plan, as promulgated in 1988, is incorporated by reference throughout 310 CMR 40.0600. The following sections, when cited in 310 CMR 40.0600, refer to the 1988 MCP: 310 CMR 40.300, 40.537, 40.541, 40.542, 40.543, and 40.544.

40.0610: Locations To Be Investigated

(1) Except as provided in 310 CMR 40.0610(4), the RP, PRP or Other Person for an LTBI identified on the 1993 Transition List shall assess such location in accordance with 310 CMR 40.0000 to determine whether one or more releases of oil and/or hazardous material has occurred that requires notification pursuant to 310 CMR 40.0300 and, whether additional response actions are required at such site pursuant to 310 CMR 40.0000. Except as provided by 310 CMR 40.0601(2) or (6), such assessments shall be conducted by the applicable deadline established by 310 CMR 40.0610(3).

(2) After completing the assessment required by 310 CMR 40.0610(1), the RP, PRP or Other Person for an LTBI identified on the 1993 Transition List shall submit to the Department one of the following LSP Evaluation Opinions:

- (a) the location is not a site where a release of oil and/or hazardous material has occurred which is subject to the notification requirements of 310 CMR 40.0300 and no further response actions are required;
- (b) a release of oil and/or hazardous material subject to the notification requirements of 310 CMR 40.0300 has occurred or may have occurred at the location but response actions completed prior to the date of the LSP Evaluation Opinion meet the requirements of a Class A or Class B Response Action Outcome pursuant to 310 CMR 40.1000;
- (c) a release of oil and/or hazardous material subject to the notification requirements of 310 CMR 40.0300 has occurred or may have occurred at the location and further response actions under 310 CMR 40.0000 are necessary; or
- (d) the location is a disposal site which is adequately regulated pursuant to 310 CMR 40.0110.

(3) Except as provided by 310 CMR 40.0601(2) or (6), the RP, PRP or Other Person for an LTBI listed by the Department on the Transition List shall submit an LSP Evaluation Opinion to the Department in accordance with 310 CMR 40.0610(2), pursuant to the following schedule:

- (a) for a site listed by the Department as an LTBI between January 15, 1987, and January 15, 1989: on or before August 2, 1995;
- (b) for a site listed by the Department as an LTBI between April 15, 1989, and January 15, 1991: on or before August 2, 1996; and
- (c) for a site listed by the Department as an LTBI between April 15, 1991, and October 1, 1993: on or before August 2, 1997.

(4) The RP, PRP or Other Person for an LTBI on the 1993 Transition List who has submitted to the Department, prior to October 3, 1988, a "no further action" recommendation, or, prior to October 1, 1993, a Preliminary Assessment (PA) Form in accordance with 310 CMR 40.541, or a Phase I Report in accordance with 310 CMR 40.543, which concluded that such location is not a disposal site or is a disposal site for which no further remedial actions are necessary, shall not be required to undertake the assessment required in 310 CMR 40.0610(1) pending the Department's review and approval of the "no further action" recommendation, PA Form or Phase I Report, except as otherwise provided in 310 CMR 40.0600 or unless ordered by the Department pursuant to M.G.L. c. 21E, §§ 9 or 10. An RP, PRP or Other Person who has submitted such "no further action" recommendation, PA Form or Phase I Report to the Department shall:

- (a) submit an LSP Evaluation Opinion to the Department in accordance with 310 CMR 40.0610(2), pursuant to the schedule in 310 CMR 40.0610(3), if the PA Form or Phase I Report:
  - 1. does not specifically include a statement in accordance with 310 CMR 40.541(4)(a) or (4)(b), or 310 CMR 40.543(3)(a) or (3)(b), either that such location:
    - a. is not a disposal site or;
    - b. is a disposal site for which no further remedial actions are necessary; or

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2. does not support such conclusions in accordance with 310 CMR 40.541(4)(a) or (4)(b), or 310 CMR 40.543(3)(a) or (3)(b); or
  - (b) submit a statement in accordance with the schedule in 310 CMR 40.0610(3), affirming that such PA Form or Phase I Report does support such conclusions in accordance with 310 CMR 40.541(4)(a) or (4)(b), or 310 CMR 40.543(3)(a) or (3)(b), or, in the case of a "no further action" recommendation, affirming that the conclusions of such recommendation are valid. A statement submitted pursuant to 310 CMR 40.0610(4)(b) shall include the certification required by 310 CMR 40.0009. The "no further action" recommendation, PA Form or Phase I Report affirmed by such statement shall not be deemed approved unless and until it is approved in writing by the Department.
- (5) An LSP Evaluation Opinion shall be submitted prior to conducting any remedial actions at an LTBI identified on the 1993 Transition List. Unless one of the submittals listed below is submitted by the applicable deadline for the LSP Evaluation Opinion established in 310 CMR 40.0610(3), a Tier Classification Submittal pursuant to 310 CMR 40.0500, and, if applicable, an application for a Tier I Permit pursuant to 310 CMR 40.0700, shall be submitted by such deadline:
- (a) one of the LSP Evaluation Opinions specified in 310 CMR 40.0610(2)(a), 40.0610(2)(b), or 40.0610(2)(d);
  - (b) a statement pursuant to 310 CMR 40.0610(4)(b); or
  - (c) a Response Action Outcome Statement pursuant to 310 CMR 40.1000.
- (6) Should an RP, PRP or Other Person for an LTBI on the 1993 Transition List fail to submit to the Department by the applicable deadline established in 310 CMR 40.0610(3) either one of the submittals listed in 310 CMR 40.0610(5)(a) through (c) or a Tier Classification Submittal pursuant to 310 CMR 40.0500, and, if applicable, an application for a Tier I Permit pursuant to 310 CMR 40.0700, the LTBI shall be categorically classified as a Tier IB disposal site on the date of the applicable deadline and the Department shall assess Tier IB annual compliance assurance fees pursuant to 310 CMR 4.00.
- (7) the Department may at any time classify an LTBI on the 1993 Transition List as Tier IA, IB, IC, or Tier II pursuant to 310 CMR 40.0500 based on available information. RPs, PRPs or Other Persons shall be assessed applicable annual compliance assurance fees pursuant to 310 CMR 4.00 for disposal sites classified in accordance with 310 CMR 40.0610(7).

40.0620: Unclassified Disposal Sites

- (1) Except as provided in 310 CMR 40.0620(4), the RP, PRP or Other Person for a location listed as an unclassified disposal site on the 1993 Transition List shall assess such location in accordance with 310 CMR 40.0000 to determine whether one or more releases of oil and/or hazardous material has occurred that requires notification pursuant to 310 CMR 40.0300 and, whether additional response actions are required at the site pursuant to 310 CMR 40.0000. Except as provided by 310 CMR 40.0601(2) or (6), such assessments shall be conducted by the applicable deadline established in 310 CMR 40.0620(3).
- (2) After completing the assessment required by 310 CMR 40.0620(1), the RP, PRP or Other Person for an unclassified disposal site identified in the 1993 Transition List shall submit to the Department one of the following LSP Evaluation Opinions:
  - (a) the location is not a site where a release of oil and/or hazardous material has occurred which is subject to the notification requirements of 310 CMR 40.0300, and no further response actions are required;

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- (b) a release of oil and/or hazardous material subject to the notification requirements of 310 CMR 40.0300 has occurred or may have occurred at the location but response actions completed prior to the date of the LSP Evaluation Opinion meet the requirements of a Class A or Class B Response Action Outcome pursuant to 310 CMR 40.1000;
- (c) a release of oil and/or hazardous material subject to the notification requirements of 310 CMR 40.0300 has occurred or may have occurred at the location and further response actions pursuant to 310 CMR 40.0000 are necessary. An LSP Evaluation Opinion shall be submitted prior to conducting any additional response actions at the disposal site; or
- (d) the location is a disposal site which is adequately regulated pursuant to 310 CMR 40.0110.

(3) Except as provided by 310 CMR 40.0601(2) or (6), the RP, PRP or Other Person for an unclassified disposal site on the 1993 Transition List shall submit to the Department an LSP Evaluation Opinion in accordance with 310 CMR 40.0620(2), pursuant to the following schedule:

- (a) for a site listed by the Department as a confirmed disposal site between January 15, 1987, and January 15, 1989: on or before August 2, 1995;
- (b) for a site listed by the Department as a confirmed disposal site between April 15, 1989, and January 15, 1991: on or before August 2, 1996; and
- (c) for a site listed by the Department as a confirmed disposal site between April 15, 1991, and October 1, 1993: on or before August 2, 1997.

(4) The RP, PRP or Other Person for an unclassified disposal site on the 1993 Transition List who has submitted to the Department prior to October 1, 1993, a Phase I Report in accordance with 310 CMR 40.543, which concluded that such location is not a disposal site or is a disposal site for which no further remedial actions are necessary, shall not be required to undertake the assessment required in 310 CMR 40.0620(1) pending the Department's review and approval of the Phase I Report, except as otherwise provided by 310 CMR 40.0600 or unless ordered by the Department pursuant to M.G.L. c. 21E, §§ 9 or 10. An RP, PRP or Other Person who has submitted such Phase I Report to the Department shall:

- (a) submit an LSP Evaluation Opinion to the Department in accordance with 310 CMR 40.0620(2), pursuant to the schedule in 310 CMR 40.0620(3), if the Phase I Report:
  - 1. does not specifically include a statement in accordance with 310 CMR 40.543(3)(a) or (3)(b), which concluded either that such location:
    - a. is not a disposal site; or
    - b. is a disposal site for which no further remedial actions are necessary; or
  - 2. does not support a conclusion in 310 CMR 40.543(3)(a) or (3)(b); or
- (b) submit a statement in accordance with the schedule in 310 CMR 40.0620(3), affirming that such Phase I Report does support such conclusions in accordance with 310 CMR 40.543(3)(a) or (3)(b). A statement submitted pursuant to 310 CMR 40.0620(4)(b) shall include the certification required by 310 CMR 40.0009. The Phase I Report affirmed by such statement shall not be deemed approved unless and until it is approved in writing by the Department.

(5) An RP, PRP or Other Person for an unclassified disposal site who submitted a Phase I Report to the Department prior to October 1, 1993, which concluded that such site may be classified as a nonpriority disposal site in accordance with 310 CMR 40.544, shall comply with the provisions of 310 CMR 40.0636 in order to conduct response actions at such disposal site on or after October 1, 1993, if such person is not issued a valid Waiver for such disposal site in accordance with 310 CMR 40.0630.

(6) An LSP Evaluation Opinion shall be submitted prior to conducting any remedial actions at an unclassified disposal site on the 1993 Transition List. Unless one of submittals listed below is submitted by the applicable deadline for the LSP Evaluation Opinion established in 310 CMR 40.0620(3), a Tier Classification Submittal pursuant to 310 CMR 40.0500, and, if applicable, an application for a Tier I Permit pursuant to 310 CMR 40.0700, shall be submitted by such deadline:

- (a) one of the LSP Evaluation Opinions specified in 310 CMR 40.0620(2)(a), 40.0620(2)(b), or 40.0620(2)(d);

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- (b) a statement pursuant to 310 CMR 40.0620(4)(b); or
- (c) a Response Action Outcome Statement pursuant to 310 CMR 40.1000.

(7) Should an RP, PRP or Other Person for an unclassified disposal site on the 1993 Transition List fail to submit to the Department by the applicable deadline in 310 CMR 40.0620(3) either one of the submittals listed in 310 CMR 40.0620(6)(a) through (c) or a Tier Classification Submittal pursuant to 310 CMR 40.0500, and, if applicable, an application for a Tier I Permit pursuant to 310 CMR 40.0700, the unclassified disposal site shall be categorically classified as a Tier IB disposal site on the date of the applicable deadline and the Department shall assess Tier IB annual compliance assurance fees pursuant to 310 CMR 4.00.

(8) the Department may at any time classify an unclassified disposal site on the 1993 Transition List as Tier IA, IB, IC, or Tier II pursuant to 310 CMR 40.0500 based on available information. RPs, PRPs or Other Persons shall be assessed applicable annual compliance assurance fees pursuant to 310 CMR 4.00 for disposal sites classified in accordance with 310 CMR 40.0620(8).

40.0630: Nonpriority Disposal Sites with Waivers

(1) Purpose and Scope:

- (a) 310 CMR 40.0630 through 40.0639, cited collectively as 310 CMR 40.0630, describes the requirements for processing Waiver applications received by the Department before October 1, 1993, and the requirements for conducting response actions at Waiver sites on or after October 1, 1993.
- (b) An RP, PRP or Other Person may apply to the Department for a Waiver of Approvals in accordance with 310 CMR 40.537 on or after August 2, 1993, and on or before September 30, 1993; provided, however, that the provisions of 310 CMR 40.0630 shall also apply to any such application which is approved by the Department. Waiver applications shall not be accepted by the Department if they are postmarked or hand delivered to the Department after September 30, 1993.
- (c) Except as provided in 310 CMR 40.0630(7), a disposal site with a valid Waiver in effect on or after October 1, 1993, shall be categorically classified as a Tier II disposal site.
- (d) Notwithstanding any provision of 310 CMR 40.0560(1)(a) to the contrary, a Tier II Classification for a disposal site with a valid Waiver in effect on or after October 1, 1993, shall expire on the date the Waiver is scheduled to expire.

(2) Requirements for Waivers approved by the Department which were applied for by July 30, 1993. Notwithstanding any provision of 310 CMR 40.000 to the contrary, the following requirements, in addition to all other applicable requirements imposed pursuant to 310 CMR 40.000, and any other conditions imposed by a Waiver of Approvals, shall apply to each person who is conducting response actions at a Waiver site on or after October 1, 1993, pursuant to a valid Waiver obtained upon approval of a complete Waiver application which was postmarked or hand delivered to the Department on or before July 30, 1993:

- (a) Notwithstanding any provision of 310 CMR 4.00 to the contrary, Waiver recipients shall be exempt from the requirement to pay Tier II annual compliance assurance fees for the Waiver site pursuant to 310 CMR 4.00 as long as the Waiver remains in effect.
- (b) The Waiver Completion Statement, when submitted, shall indicate whether, in the opinion of the Waiver recipient's consultant, a Permanent Solution has been achieved in accordance with 310 CMR 40.1000. A Licensed Site Professional shall not be required to render an LSP Opinion regarding such Completion Statement.

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- (c) Nothing herein shall be construed to preclude the Waiver recipient from engaging or employing an LSP for the purposes of providing Professional Services and rendering LSP Opinions with respect to a Waiver site.
- (d) Public Involvement Activities shall be conducted in accordance with 310 CMR 40.1400 through 310 CMR 40.1406.
- (e) The Waiver Site shall be exempt from 310 CMR 40.0520(2)(a)1., Categorical Tier I Designation.
- (f) The methods and standards for risk characterization set forth in 310 CMR 40.0900 may be used to develop a Waiver Completion Statement pursuant to 310 CMR 40.0630(2)(b).
- (g) Waiver Completion Statements developed pursuant to 310 CMR 40.0630(2)(b) shall not include Activity and Use Limitations pursuant to 310 CMR 40.1000. RPs, PRPs and Other Persons have the option to submit LSP Opinions and a Response Action Outcome Statement pursuant to 310 CMR 40.1000 for a Waiver site in lieu of a Waiver Completion Statement under 310 CMR 40.537, in which case Activity and Use Limitations may be utilized as part of an RAO.
- (h) Response actions which have not been completed before expiration of the Waiver shall be performed in accordance with the requirements set forth in 310 CMR 40.0630(4).
- (i) The Waiver recipient shall notify the Department upon obtaining knowledge of any material information or data which indicates that the disposal site would not be classified as a nonpriority disposal site were such disposal site to be reclassified using the criteria set forth in 310 CMR 40.544, when such knowledge is obtained prior to October 1, 1993. When such knowledge is obtained on or after October 1, 1993, such reclassification shall be conducted pursuant to 310 CMR 40.0530.
- (j) The Waiver recipient shall notify the Department of any release or threat of release of oil and/or hazardous material, or Imminent Hazard, at the disposal site as follows:
  - 1. prior to October 1, 1993, notification shall be submitted pursuant to 310 CMR 40.542 of the 1988 regulations.
  - 2. on or after October 1, 1993, and for the duration of the Waiver, notification shall be submitted pursuant to 310 CMR 40.0300.

(3) Requirements for Waivers approved by DEP and which were received by DEP between August 2, 1993, and September 30, 1993. Notwithstanding any provision of 310 CMR 40.000 to the contrary, the following requirements, in addition to all other applicable requirements imposed pursuant to 310 CMR 40.000, and any other conditions imposed by a Waiver of Approvals, shall apply to each person conducting response actions at a Waiver site on or after October 1, 1993, pursuant to a valid Waiver obtained upon approval of a complete Waiver application which was postmarked or hand delivered to DEP on or after August 2, 1993, and on or before September 30, 1993:

- (a) RPs, PRPs and Other Persons shall conduct response actions in accordance with the provisions of 310 CMR 40.0630(2)(b) through 40.0630(2)(j); and
- (b) RPs, PRPs and Other Persons conducting response actions pursuant to a Waiver issued in accordance with 310 CMR 40.0630(3) shall be assessed Tier II annual compliance assurance fees pursuant to 310 CMR 4.00, commencing one year from the date such Waiver is approved by the Department.

(4) Continuation of Response Actions after the Expiration of a Waiver. No Waiver issued pursuant to 310 CMR 40.537 and 310 CMR 40.0630 shall be extended by the Department beyond the expiration date of such Waiver. RPs, PRPs, or Other Persons shall continue response actions after the expiration of a Waiver as follows:

- (a) All response actions at the disposal site shall be conducted in accordance with 310 CMR 40.0560, Response Action Deadlines and Requirements for Tier II Disposal Sites; and
- (b) No later than 60 days prior to the expiration date of the Waiver, the Waiver recipient shall submit to the Department a Tier II Extension Submittal in accordance with the requirements of 310 CMR 40.0560(7).

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- (5) The Department may withdraw its approval of a Waiver issued pursuant to 310 CMR 40.537 and 310 CMR 40.0630 if it determines that the Waiver recipient is in noncompliance with any of the conditions set forth in such Waiver, or with applicable provisions of 310 CMR 40.000, 310 CMR 40.0630, and any other applicable requirements, or the Department has reason to believe that conditions at the disposal site have changed such that the disposal site is no longer a Tier II disposal site.
- (6) An approved Waiver in effect on or after October 1, 1993, shall not be transferred or reassigned. Response actions may be continued at a Waiver site by an RP, PRP or Other Person who is not the Waiver recipient as follows:
  - (a) All response actions at the disposal site shall be conducted in accordance with 310 CMR 40.0560, Response Action Deadlines and Requirements for Tier II Disposal Sites; and
  - (b) The RP, PRP or Other Person proposing to continue response actions at the disposal site in place of the Waiver recipient shall submit to the Department a Tier II Transfer Submittal pursuant to 310 CMR 40.0560(8), Changes in Persons Undertaking Response Actions at Tier II Disposal Sites.
  - (c) Notwithstanding any provision of 310 CMR 40.000 or 310 CMR 40.0000, a Waiver of Approvals shall expire upon the effective date of the Tier II Transfer Submittal required by 310 CMR 40.0630(6)(b) and 40.0560(8).
- (7) Each Waiver site for which the Department does not receive any of the following by the date the Waiver is scheduled to expire shall be categorically classified as a Tier IB disposal site on the day following such date:
  - (a) a Waiver Completion Statement indicating that a Temporary or Permanent Solution has been achieved;
  - (b) a Response Action Outcome Statement; or
  - (c) the Tier II Extension Submittal required by 310 CMR 40.0630(4)(b).
- (8) The Department may at any time classify a Waiver site subject to 310 CMR 40.0630 as Tier IA, IB, IC, or Tier II pursuant to 310 CMR 40.0500 based upon available information. RPs, PRPs or Other Persons shall be assessed applicable annual compliance assurance fees pursuant to 310 CMR 4.00 for disposal sites classified in accordance with 310 CMR 40.0636(8).

40.0636: Nonpriority Disposal Sites without Waivers

- (1) Except as provided in 310 CMR 40.0636(4), the RP, PRP or Other Person for a location listed on the 1993 Transition List as a nonpriority disposal site who does not have a valid Waiver from the Department shall assess such location pursuant to 310 CMR 40.0000 to determine whether one or more releases of oil and/or hazardous material has occurred that requires notification pursuant to 310 CMR 40.0300, and whether additional response actions are required pursuant to 310 CMR 40.0000. Except as provided by 310 CMR 40.0601(2) or (6), such assessments shall be conducted by the applicable deadline established by 310 CMR 40.0636(3).
- (2) After completing the assessment required by 310 CMR 40.0636(1), the RP, PRP or Other Person for such nonpriority disposal site shall submit to the Department one of the following LSP Evaluation Opinions:
  - (a) the location is not a site where a release of oil and/or hazardous material has occurred which is subject to the notification requirements of 310 CMR 40.0300, and no further response actions are required;
  - (b) a release or threat of release of oil and/or hazardous material subject to the notification requirements of 310 CMR 40.0300 has occurred or may have occurred at the location but response actions completed prior to the date of the LSP Evaluation Opinion meet the requirements for a Class A or Class B Response Action Outcome pursuant to 310 CMR 40.1000;



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- (c) a release of oil and/or hazardous material subject to the notification requirements of 310 CMR 40.0300 has occurred or may have occurred at the location and further response actions under 310 CMR 40.0000 are necessary; or
- (d) the location is a disposal site which is adequately regulated pursuant to 310 CMR 40.0110.

(3) Except as provided by 310 CMR 40.0601(2) or (6), the RP, PRP or Other Person for a nonpriority disposal site on the 1993 Transition List shall submit an LSP Evaluation Opinion to the Department in accordance with 310 CMR 40.0636(2), pursuant to the following schedule:

- (a) for a site listed by the Department as a confirmed disposal site between January 15, 1987, and January 15, 1989: on or before August 2, 1995;
- (b) for a site listed by the Department as a confirmed disposal site between April 15, 1989, and January 15, 1991: on or before August 2, 1996; and
- (c) for a site listed by the Department as a confirmed disposal site between April 15, 1991, and October 1, 1993: on or before August 2, 1997.

(4) The RP, PRP or Other Person for a nonpriority disposal site on the 1993 Transition List who has submitted to the Department prior to October 1, 1993, a Phase I Report for approval in accordance with 310 CMR 40.543, which concluded either that such a location (a) is not a disposal site or, (b) is a disposal site for which no further remedial actions are necessary, shall not be required to undertake the assessment required in 310 CMR 40.0636(1) pending the Department's review and approval of the Phase I Report, unless as otherwise provided in this section or unless otherwise ordered by the Department pursuant to M.G.L. c. 21E, §§ 9 or 10. An RP, PRP or Other Person who has submitted such Phase I report to the Department shall:

- (a) submit an LSP Evaluation Opinion to the Department in accordance with 310 CMR 40.0636(2), pursuant to the schedule in 310 CMR 40.0636(3), if the Phase I Report:
  - 1. does not specifically include a statement in accordance with 310 CMR 40.543(3)(a) or (3)(b), which concluded either that such location (a) is not a disposal site or (b) is a disposal site for which no further remedial actions are necessary; or
  - 2. does not support a conclusion in 310 CMR 40.543(3)(a) or (3)(b); or
- (b) shall submit a statement in accordance with the schedule in 310 CMR 40.0636(3), affirming that such Phase I Report does support a conclusion in accordance with 310 CMR 40.543(3)(a) or (3)(b). A statement submitted pursuant to 310 CMR 40.0636(4)(b) shall include the certification required by 310 CMR 40.0009. The Phase I Report affirmed by such statement shall not be deemed approved unless and until it is approved in writing by the Department.

(5) Release Abatement Measures shall not be undertaken by any person at a nonpriority disposal site which is found to be a disposal site where further response actions are required before an LSP Evaluation Opinion has been submitted in accordance with 310 CMR 40.0636(2)(c) or 40.0636(2)(d).

(6) An LSP Evaluation Opinion shall be submitted prior to conducting any remedial actions at a nonpriority disposal site on the 1993 Transition List. Unless one of submittals listed below is submitted by the applicable deadline for the LSP Evaluation Opinion established in 310 CMR 40.0636(3), a Tier Classification Submittal pursuant to 310 CMR 40.0500, and, if applicable, an application for a Tier I Permit pursuant to 310 CMR 40.0700, shall be submitted by such deadline:

- (a) one of the LSP Evaluation Opinions specified in 310 CMR 40.0636(2)(a), 40.0636(2)(b), or 40.0636(2)(d);
- (b) a statement pursuant to 310 CMR 40.0636(4)(b); or
- (c) a Response Action Outcome Statement pursuant to 310 CMR 40.1000.

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(7) Should the RP, PRP or Other Person for a nonpriority disposal site on the 1993 Transition List fail to submit to the Department by the applicable deadline established in 310 CMR 40.0636(3) either one of the submittals listed in 310 CMR 40.0636(6)(a) through (c) or a Tier Classification Submittal pursuant to 310 CMR 40.0500, and, if applicable, an application for a Tier I Permit pursuant to 310 CMR 40.0700, the nonpriority disposal site shall be categorically classified as a Tier IB disposal site on the date of the applicable deadline and the Department shall assess Tier IB annual compliance assurance fees pursuant to 310 CMR 4.00.

(8) the Department may at any time classify a nonpriority disposal site subject to 310 CMR 40.0636 as Tier IA, IB, IC, or Tier II pursuant to 310 CMR 40.0500 based upon available information. RPs, PRPs or Other Persons shall be assessed applicable annual compliance assurance fees pursuant to 310 CMR 4.00 for disposal sites classified in accordance with 310 CMR 40.0636(8).

#### 40.0637: Exemption from Transition Requirements

310 CMR 40.0637 establishes the requirements and criteria for determining that a Location to Be Investigated, Unclassified Disposal Site, or Non-Priority Disposal Site Without Waiver is exempt from the requirements of 310 CMR 40.0600, and describes the effect of the exemption.

(1) Applicability. The requirements and criteria set forth in 310 CMR 40.0637 apply to all Locations to Be Investigated ("LTBIs"), Unclassified Disposal Sites, and Non-Priority Disposal Sites Without Waivers published on the 1993 Transition List and Addenda and reviewed by the Department on or before August 9, 1996 pursuant to 310 CMR 40.0637.

(2) Effect. Any LTBI, Unclassified Disposal Site, or Non-Priority Disposal Site Without Waiver determined by the Department to meet the requirements of 310 CMR 40.0637 shall be exempt from the requirements of 310 CMR 40.0600. The exemption shall not eliminate any requirement to notify the Department pursuant to 310 CMR 40.0300 or to undertake response actions pursuant to 310 CMR 40.0370, if warranted.

(3) Criteria for Exempting LTBIs. In determining that an LTBI is exempt from the requirements of 310 CMR 40.0600, the Department shall consider the following criteria:

- (a) past and current uses of the property;
- (b) any information indicating that a release of oil or hazardous material has occurred or is occurring that would require notification to the Department pursuant to 310 CMR 40.0300;
- (c) response actions taken; and
- (d) any other information the Department deems relevant to its determination.

(4) Criteria for Exempting Unclassified Disposal Sites and Non-Priority Disposal Sites Without Waivers. In determining that an Unclassified Disposal Site or a Non-Priority Disposal Site Without Waiver is exempt from the requirements of 310 CMR 40.0600, the Department shall consider the following criteria:

- (a) past and current uses of the Site;
- (b) conditions at the Site, including but not limited to:
  - 1. type of location;
  - 2. type of release;
  - 3. concentration and/or quantity of the release; and
  - 4. effects upon soil and/or groundwater;
- (c) response actions taken at the Site such that concentrations/quantities of oil or hazardous material that may remain would not require notification to the Department pursuant to 310 CMR 40.0300; and
- (d) any other information the Department deems relevant to its determination.

40.0640: Priority Disposal Sites

(1) Applicability:

- (a) 310 CMR 40.0640 is applicable to RPs, PRPs or Other Persons for priority disposal sites on the 1993 Transition List. Priority disposal sites for which an administrative consent order or judicial consent decree is in effect are subject to the requirements of 310 CMR 40.0670.
- (b) Except as provided by 310 CMR 40.0640(2), all priority disposal sites shall be categorically classified as Tier IA disposal sites and shall be assessed Tier IA annual compliance assurance fees pursuant to 310 CMR 4.00.
- (c) On or after October 1, 1993, an RP, PRP or Other Person shall continue to conduct response actions approved by the Department as of October 1, 1993, at priority disposal sites pursuant to the terms and conditions of such approval, and shall conduct all future response actions not subject to such approval in accordance with the provisions of 310 CMR 40.0640.

(2) The Department shall consider the criteria in 310 CMR 40.0730 when determining the nature and extent of Departmental oversight required for priority disposal sites. Notwithstanding any provision of 310 CMR 40.0640(1)(b) to the contrary, the Department may classify a priority disposal site as Tier IB pursuant to such criteria and the provisions of this section. Such Tier IB classification shall not become effective until the Department receives a signed and dated Transition Statement in accordance with 310 CMR 40.0640(3)(b)1. Until the Department's receipt of such Transition Statement, the Department shall assess Tier IA annual compliance assurance fees pursuant to 310 CMR 4.00.

(3) Transition of Priority Disposal Sites for Tier IA and Tier IB Classification and Permitting:

- (a) The Department shall issue to an RP, PRP or Other Person for a priority disposal site subject to 310 CMR 40.0640, and may issue to an RP, PRP, or Other Person for a disposal site subject to 310 CMR 40.0670, a Tier IA or Tier IB Transition Classification and Permit Statement (a "Transition Statement"). Such statement shall be provided on a form established by the Department for such purposes.
- (b) Within 120 days of receipt of such statement, an RP, PRP or Other Person shall sign, date and submit the Transition Statement to the Department and indicate thereon either of the following:
  - 1. the RP, PRP or Other Person agrees to conduct all response actions pursuant to the terms and conditions of any and all Departmental approvals that are in effect on October 1, 1993; and the RP, PRP or Other Person agrees to conduct all future response actions at the disposal site which are not subject to an existing Departmental approval in accordance with a Tier IA or Tier IB Transition Permit, whichever is applicable, and in accordance with the provisions of 310 CMR 40.0000.

NON-TEXT PAGE

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- a. A Tier IA or Tier IB Transition Permit for such disposal site shall become effective upon the Department's receipt of the signed and dated Transition Statement from an RP, PRP or Other Person;
  - b. RPs, PRPs and Other Persons conducting response actions pursuant to 310 CMR 40.0640(3)(b)1. shall be exempt from applicable Tier I Permit application fees;
  - c. RPs, PRPs and Other Persons conducting response actions pursuant to 310 CMR 40.0640(3)(b)1. shall be assessed applicable annual compliance assurance fees pursuant to 310 CMR 4.00, commencing October 1, 1993;
  - d. RPs, PRPs and Other Persons shall not be required to engage or employ a Licensed Site Professional to render an LSP Opinion upon completion of a response action that was approved by the Department prior to October 1, 1993. In such case, the Consultant-of-Record, or another qualified consultant in his or her absence, shall state that the applicable requirements of 310 CMR 40.000, the 1988 regulations, and any approved conditions specified by the Department have been achieved. On or after October 1, 1993, an RP, PRP or Other Person may utilize the methods and standards for Risk Characterization as set forth in 310 CMR 40.0900 when conducting response actions approved by DEP prior to October 1, 1993; and
  - e. RPs, PRPs and Other Persons have the option to engage or employ an LSP and to submit LSP Opinions pursuant to 310 CMR 40.0000 for response actions that were approved prior to October 1, 1993. If an LSP is so engaged or employed, an RP, PRP or Other Person shall include in a Transition Statement the name and license number of such LSP;
2. the RP, PRP or Other Person does not accept the Tier IA or Tier IB Transition Permit, whichever is applicable, since, such disposal site may, in the Opinion of an LSP, be reclassified as Tier IB, Tier IC or Tier II. In this case, the Transition Statement shall include a Major Permit Modification application pursuant to 310 CMR 40.0707. Notwithstanding any provision of 310 CMR 40.0707 to the contrary, submittal of such application shall be allowed during any phase of response actions pursuant to 310 CMR 40.0800;
  3. the RP, PRP or Other Person does not accept the Tier IA or Tier IB Transition Permit, whichever is applicable, since, in the Opinion of an LSP, a Class A or Class B Response Action Outcome pursuant to 310 CMR 40.1000 has been achieved at the disposal site. In this case, the Transition Statement shall include a Response Action Outcome Statement pursuant to 310 CMR 40.1000. Such RAO Statement shall not become effective until Departmental approval is obtained pursuant to 310 CMR 40.0550(4)(a);
  4. the RP, PRP or Other Person does not accept the Tier IA or Tier IB Transition Permit, whichever is applicable.
    - a. Such Transition Statement shall indicate whether the RP, PRP or Other Person intends to undertake response actions approved prior to October 1, 1993. If such person will not, the statement shall include an explanation of why the RP, PRP or Other Person will not undertake such response actions at the disposal site pursuant to 310 CMR 40.0172, or other applicable provisions of 310 CMR 40.0000;
    - b. If work approved prior to October 1, 1993, will be completed, the Transition Statement shall include a schedule for its completion;
    - c. Either statement in 310 CMR 40.0640(3)(b)4. shall include a Status Report indicating whether one or more Temporary and/or Permanent Solutions have been achieved or will be achieved at the disposal site. Such Status Report shall include an LSP Opinion regarding the completion of response actions to date and the response actions remaining in order to achieve a Permanent or Temporary solution at such disposal site.

40.0640: continued

(c) Notwithstanding any provision of 310 CMR 40.0640(2) to the contrary, if an RP, PRP or Other Person for a priority disposal site fails to return an applicable Transition Statement as required pursuant to 310 CMR 40.0640(3)(b)1. through (b)4., or submits a Transition Statement pursuant to 310 CMR 40.0640(3)(b)4., on the day after the day such Transition Statement is due, such disposal site shall be categorically classified as a Tier IB disposal site, and the RP, PRP or Other Person for such disposal site shall be assessed Tier IB annual compliance assurance fees. Such RP, PRP or Other Person shall not conduct any unapproved response actions at a priority disposal site unless and until a Tier I Permit is obtained in accordance with 310 CMR 40.0640 and/or 40.0700.

(4) Priority Disposal Sites with Approvals Pending as of October 1, 1993. The following provisions are applicable to an RP, PRP or Other Person who submitted a Phase II, III, or IV Report, or portion thereof, to the Department prior to October 1, 1993, for which Departmental approval has not been given as of October 1, 1993. The Department may notify an RP, PRP or Other Person that response actions at priority disposal sites with approvals pending as of October 1, 1993, may be conducted pursuant to a Tier IA or Tier IB Tier Classification. The process for Departmental notification and for an RP, PRP or Other Person to respond shall be as provided in 310 CMR 40.0640(3), except as follows:

- (a) RPs, PRPs or Other Persons shall comply with the provisions of 310 CMR 40.0000, including the requirement to engage or employ an LSP, in order to conduct further response actions at a priority disposal site pursuant to 310 CMR 40.0640(4);
- (b) An RP, PRP or Other Person shall be assessed Tier IA annual compliance assurance fees for any Departmental review of reports for such disposal sites which occurs on or after October 1, 1993, and prior to the Department's receipt of a signed and dated Tier IB Transition Statement pursuant to 310 CMR 40.0640(3), if applicable; and
- (c) RPs, PRPs or Other Persons shall not be assessed Tier I Permit application fees in order for the Department to review reports or to issue Transition Statements for disposal sites subject to 310 CMR 40.0640(4).

40.0641: Short Term Measures and Interim Measures

(1) Short Term Measures (STMs) conducted pursuant to 310 CMR 40.542 and Interim Measures (IMs) conducted pursuant to a Departmental approval which are ongoing on or after October 1, 1993, shall be conducted pursuant to the provisions of the approval for the duration of the STM or IM unless otherwise specified by the Department.

(2) RPs, PRPs or Other Persons have the option to engage or employ an LSP and to submit LSP Opinions pursuant to 310 CMR 40.0000 for an STM or IM conducted pursuant to 310 CMR 40.0641(1). If an LSP is engaged or employed for such purposes, an RP, PRP or Other Person shall notify the Department and include in the notification the name and license number of the LSP who will be providing Opinions regarding future response actions.

(3) Upon completion of an approved STM or IM being conducted pursuant to 310 CMR 40.0641(1), all future response actions at the disposal site shall be conducted pursuant to the provisions of 310 CMR 40.0000.

40.0642: Requirements for Notifications Received between August 2, 1993 and September 30, 1993, Which are Not Listed on the Transition List or Addenda

(1) A No Further Action Letter pursuant to 310 CMR 40.541(4) or 40.543(3) submitted to the Department by an RP, PRP or Other Person for a release or threat of release of oil and/or hazardous material reported to the Department pursuant to 310 CMR 40.300 on or after August 2, 1993, but before October 1, 1993, shall not become effective unless and until it is approved by the Department, unless as otherwise provided in 310 CMR 40.0642.

40.0642: continued

(2) On or after October 1, 1993, an LSP Evaluation Opinion or a Response Action Outcome Statement pursuant to 310 CMR 40.1000 may be submitted to the Department in place of a No Further Action Letter submitted pursuant to 310 CMR 40.0642(1). Such Opinion or RAO Statement shall be based upon the provisions of 310 CMR 40.0000 and shall not be subject to Departmental approval.

(3) Should an RP, PRP or Other Person not submit to the Department a No Further Action Letter pursuant to 310 CMR 40.000, the 1988 regulations, before October 1, 1993, all future response actions for such disposal site shall be conducted in accordance with the requirements of 310 CMR 40.0000. Any applicable time periods for compliance with achieving a Response Action Outcome and for assessment of annual compliance assurance fees pursuant to 310 CMR 4.00 shall commence to run on October 1, 1993.

(4) Should the Department learn or conclude on or after October 1, 1993, that locations subject to 310 CMR 40.0642 are disposal sites for which additional response actions are required, the Department may classify such disposal sites as Tier IA, IB, IC, or Tier II pursuant to 310 CMR 40.0500 based upon available information. RPs, PRPs or Other Persons for such disposal sites shall be assessed applicable annual compliance assurance fees pursuant to 310 CMR 4.00.

40.0650: Remedial Sites

(1) For the purposes of 310 CMR 40.0000, remedial sites listed on the 1993 Transition List as having Permanent Solutions shall be deemed to have achieved a Response Action Outcome pursuant to 310 CMR 40.1000.

(2) For the purposes of 310 CMR 40.0000, remedial sites listed on the 1993 Transition List as having Temporary Solutions shall be considered as having achieved a Response Action Outcome pursuant to 310 CMR 40.1000.

(3) All other remedial sites listed on the 1993 Transition List shall not require further response actions unless new information becomes available to an RP, PRP, Other Person or the Department that indicates that a site condition requires notification pursuant to 310 CMR 40.0300, or that a Temporary or Permanent Solution is no longer effective in protecting health, safety, public welfare and the environment pursuant to 310 CMR 40.0000. RPs, PRPs or Other Persons may re-evaluate such sites in order to determine their applicable Response Action Outcome status pursuant to the provisions of 310 CMR 40.1000.

40.0660: Deleted Sites

(1) Deleted sites listed on the 1993 Transition List as being "Deleted-Not a Site" shall not be considered sites subject to further response actions pursuant to 310 CMR 40.0000 unless an RP, PRP, Other Person or the Department has knowledge or obtains knowledge that site conditions have changed since the site's deletion such that concentrations of oil and/or hazardous material constitute a release of oil and/or hazardous material which requires notification in accordance with 310 CMR 40.0300.

(2) Deleted sites listed on the 1993 Transition List as "Deleted-No Further Action" shall not require further response actions unless an RP, PRP, Other Person or the Department has knowledge or obtains knowledge that site conditions have changed since the site's deletion such that concentrations of oil and/or hazardous material constitute a release of oil and/or hazardous material which requires notification in accordance with 310 CMR 40.0300.

40.0670: Effect on a Consent Order, Decree, or Departmental Memorandum of Understanding

(1) An administrative consent order issued pursuant to M.G.L. c. 21E, § 9, a judicial consent decree or Departmental Memorandum of Understanding (MOU) signed, filed and/or effective before October 1, 1993 for a disposal site, shall remain in effect until their terms are fulfilled unless otherwise specified in such orders, decrees, or MOUs, or as agreed to in writing by the Department. All such disposal sites shall be categorically classified as Tier IA disposal sites for the purposes of oversight by the Department in accordance with 310 CMR 40.0000 and shall be assessed Tier IA annual compliance assurance fees pursuant to 310 CMR 4.00 unless:

- (a) with respect to an administrative consent order, as otherwise ordered by the Department;
- (b) with respect to a consent decree, as otherwise ordered by the appropriate court; or
- (c) with respect to an MOU, as otherwise stipulated in such MOU.

(2) The Department will review whether the parties to consent orders are in compliance with such orders. If the Department determines that such parties are not in compliance with such orders, the Department may take appropriate enforcement action including, but not limited to, the following:

- (a) requiring the parties to submit a Tier Classification Submittal and Permit Application, and incorporating the consent order in a Tier I Permit;
- (b) requiring the parties to submit a Tier Classification Submittal and Permit Application, and negating the consent order; or
- (c) enforcing the terms of the consent order or decree.

(3) For disposal sites where parties are in compliance with the terms of consent orders or decrees, the terms of such orders or decrees shall remain in effect unless and until otherwise modified by an order or decree. Such parties shall not be required to obtain a Tier I Permit pursuant to 310 CMR 40.0700 in order to conduct any work approved pursuant to such consent order or decree.

(4) The parties to consent orders, decrees or MOUs may request that such orders, decrees or MOUs be amended to allow response actions to be conducted pursuant to 310 CMR 40.0000.

SUBPART G: TIER I PERMITS

40.0700: Tier I Permits

The regulations published at 310 CMR 40.0700 through 40.0799, cited collectively as 310 CMR 40.0700, establish the requirements, standards and procedures for obtaining, modifying, transferring, extending, suspending and revoking Tier I Permits. The regulations published at 310 CMR 4.00, which govern permit application fees, annual compliance assurance fees and schedules for timely action, also apply to Tier I Permits and shall be consulted as necessary.

40.0702: Applicability

(1) Except as provided in 310 CMR 40.0000, including, but not limited to, 310 CMR 40.0702(4), a Tier I Permit is required to conduct Comprehensive Response Actions pursuant to 310 CMR 40.0870 for any disposal site classified as Tier IA, Tier IB or Tier IC pursuant to 310 CMR 40.0500 or 40.0600.

(2) No person shall continue to perform Comprehensive Response Actions under 310 CMR 40.0870 at a disposal site classified as Tier II after he or she obtains reason to believe that, as a result of new or additional information obtained and/or as a result of re-scoring pursuant to 310 CMR 40.0530(2), such disposal site requires reclassification as a Tier I disposal site, unless and until such person submits a Tier I Permit Application.

(3) A Tier I Permit is not required to perform Comprehensive Response Actions at disposal sites where the Department is conducting response actions.

(4) A person who does not have a Tier I Permit for a disposal site for which a Tier I Permit is required shall not perform any Comprehensive Response Actions at such disposal site.



40.0702: continued

(5) No person shall initiate or continue to perform Comprehensive Response Actions at a Tier I disposal site after the Tier I Permit obtained by such person for the Tier I disposal site has expired, unless and until such person obtains a Permit Extension in accordance with 310 CMR 40.0706 and 40.0720.

(6) An application for a Tier I Permit may be submitted to perform Comprehensive Response Actions at a portion of a disposal site that comprises a single parcel of land or multiple parcels of land.

40.0703: Requirements for All Tier I Permit Applications

All applicants for all Tier I Permits shall comply with the following requirements:

(1) Content of Application. Except as expressly provided by 310 CMR 40.0704 through 40.0707, each Tier I Permit 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 form using the form established by the Department for such purposes;
- (c) the certifications required by 310 CMR 40.0009 and 40.0703(9)(a) and (10);
- (d) the applicable permit application fee payable under 310 CMR 4.00 (to be sent to DEP's Lockbox for payments);
- (e) a photocopy of the fee payment (to be included in the permit application);
- (f) the compliance history required by 310 CMR 40.0703(9)(b);
- (g) the tearsheet(s) from the newspaper(s) containing the legal notice required by 310 CMR 40.0703(8)(a)1., with the date of the publication and name of the newspaper;
- (h) a copy of the cover letter and notices submitted to the Chief Municipal Officer(s) and Board(s) of Health required by 310 CMR 40.0703(8)(a)2.;
- (i) the certification of the Primary Representative, if applicable, required by 310 CMR 40.0703(7); and
- (j) a list of all Status Reports, Phase Reports, or Completion Statements for any of the following response actions that are in progress or have been completed at the disposal site at the time of the Permit application that provides the dates on which such Reports or Statements were submitted to the Department or, for those response actions in progress, a description of the current status and projected schedule for completion of such response actions:
  - 1. any Immediate Response Action under 310 CMR 40.0410;
  - 2. any Release Abatement Measure under 310 CMR 40.0440;
  - 3. any Utility-related Abatement Measure under 310 CMR 40.0460; and
  - 4. notwithstanding 310 CMR 40.0702(2) and (3), any Comprehensive Response Actions in progress or which have been completed pursuant to 310 CMR 40.0800 at the time of the Permit Application.

(2) Conducting Response Actions after Submission and prior to Approval of a Permit Application. An applicant may initiate or continue Preliminary Response Actions pursuant to 310 CMR 40.0400 or Phase II and/or Phase III Comprehensive Response Actions pursuant to 310 CMR 40.0830 and 310 CMR 40.0850, respectively, at a disposal site during the period after a Tier I Permit Application has been submitted and prior to its approval pursuant to 310 CMR 40.0720.

(3) Filing. The applicant shall file an original application with the Department.

(4) Presentation. All data, facts and other information provided in any document submitted with a Tier I Permit application shall be current and presented clearly and concisely. Any supporting material and/or data upon which a Tier I Permit application relies, in whole or in part, shall be included in the Tier I Permit application.

(5) Multiple Applicants. In the event that more than one person is applying for a Tier I Permit, each applicant shall submit:

- (a) the certification required at 310 CMR 40.0009;
- (b) the certification required at 310 CMR 40.0703(9)(a);

40.0703: continued

(c) the compliance history required by 310 CMR 40.0703(9)(b).

(6) LSP Opinions. All Tier I Permit applications shall include an LSP Opinion that such application has been prepared pursuant to the provisions of 310 CMR 40.0000, and shall include the signature and seal of the LSP-of-Record.

(7) Primary Representative.

(a) In the event that more than one person is applying for a Tier I Permit, the applicants shall designate and maintain a Primary Representative authorized to act on their behalf for the following purposes:

1. to receive oral and written correspondence from the Department with respect to the application, as needed;
2. to receive oral and written correspondence from the Department with respect to the performance of response actions conducted pursuant to the Tier I Permit; and
3. to receive any statement of fee required by 310 CMR 4.03(3) associated with the Tier I Permit.

(b) The Primary Representative shall certify in writing to the Department that he or she is fully authorized to act on behalf of the applicants for the purposes stated in 310 CMR 40.0703(7)(a).

(c) Upon submittal of a permit application, receipt of material issued by the Department to the Primary Representative under 310 CMR 40.0703(7)(a) shall be deemed to be received by all permittees.

(d) The Department shall be notified of any change in the designation of the Primary Representative no later than ten days after the effective date of such change through the filing of a Minor Permit Modification by the permittees in accordance with 310 CMR 40.0725.

(8) Public Notice Requirements.

(a) Prior to the submission of a Tier I Permit Application, each applicant or group of applicants shall take the following actions to provide notice to the public of the availability of a Tier I Permit Application for review and comment:

1. a legal notice shall be published in a newspaper that circulates in the community(ies) in which the disposal site 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
2. at least three days prior to publication of the legal notice, a copy of the notice shall be delivered by mail or hand 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) that is, or is likely to be, affected by the disposal site.

(b) The legal notice required by 310 CMR 40.0703(8)(a) shall be in a form established by the Department for such purposes and shall include, but not be limited to, the following information:

1. the name and address of the disposal site;
2. the DEP Release Tracking Number(s), and the permit number, if one has been assigned;
3. the name, address, and telephone number of the permit applicant(s);
4. the proposed Tier I Permit category of the disposal site, as determined in accordance with 310 CMR 40.0500;
5. the date on or about which the applicant(s) intends to file the application with the Department; and
6. a description of the procedures by which interested persons may review and comment on the permit application.

(c) Interested persons may submit written comments related to a Permit Application within 21 days of the publication of the legal notice required by 310 CMR 40.0703(8)(a)1. Such written comments shall be submitted to the Department by mail or by hand delivery during normal Department business hours and to the Permit applicant.

(d) The Department shall consider and respond as it deems appropriate to public comments submitted in accordance with 310 CMR 40.0703(8)(c).

(e) On its own initiative, the Department may extend the period for submission of public comments.

(f) The notifications required by 310 CMR 40.0703(8)(a) may be included with the notifications required by 310 CMR 40.1403(6) for purposes of compliance with these subsections.

40.0703: continued

(g) Prior to the submission of an initial Tier I Permit application, or the submission of a Major Permit Modification application:

1. to upgrade the Tier I Permit Classification; or
2. to downgrade the Tier I Permit Classification to a Tier IB or a Tier IC;

each applicant or group of applicants shall also submit a notice for publication in the Environmental Monitor as required by 310 CMR 40.1406(1).

(9) Demonstration of Ability and Willingness.

(a) Each applicant shall include the following written declaration with a Tier I Permit application:

"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 permit application 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."

(b) Each applicant shall include a statement as part of the Tier I Permit application detailing such applicant'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 and other federal, state and local government agencies, that are material to the disposal site.

(10) Certification of Remittance of Permit Application Fee. Each applicant shall include the following written declaration with a Tier I Permit application:

"I attest under the pains and penalties of perjury that, on or before the date of submittal of this permit application to the Department, I remitted, or caused to be remitted, the applicable permit fee payable in accordance with 310 CMR 4.00."

(11) Information Requests. Each applicant shall submit all additional information requested by the Department subsequent to filing an application, within the time specified by the Department in the Department's request.

40.0704: Additional Application Submittal Requirements for Initial Tier I Permit Applications.

(1) Content of Application. In addition to the requirements in 310 CMR 40.0703, each Initial Tier I Permit application filed with the Department shall include the following:

- (a) the Tier Classification Submittal required by 310 CMR 40.0500, including, without limitation, an LSP Tier Classification Opinion;
- (b) the Phase II Scope of Work or conceptual scope of work required by 310 CMR 40.0500; and
- (c) a statement affirming that notice was submitted for publication in the Environmental Monitor as required by 310 CMR 40.0703(8)(g), and a photocopy of such notice.

40.0705: Additional Application Submittal Requirements for Tier I Permit Transfers

(1) General. No Tier I Permit shall be transferred unless and until the permittee(s) has transferred such Permit pursuant to 310 CMR 40.0720.

(2) Content of Application. In addition to the requirements in 310 CMR 40.0703, an application for permit transfer shall include the following:

- (a) the certification required by 310 CMR 40.0009 from the permittee;

40.0705: continued

- (b) written consent by the transferee to the terms and conditions of the Tier I Permit;
- (c) the certification required in 310 CMR 40.0703(9)(a) by the transferee;
- (d) the transferee's compliance history, as required by 310 CMR 40.0703(9)(b); and
- (e) a statement as to why the transfer is sought.

40.0706: Additional Application Submittal Requirements for Tier I Permit Extensions

(1) General.

- (a) No Tier I Permit expiration date shall be extended unless and until the permittee(s) has obtained a Permit Extension in accordance with 310 CMR 40.0720.
- (b) Except as provided by 310 CMR 40.0703(2), no person shall initiate or continue to perform Comprehensive Response Actions at a Tier I disposal site after a Tier I Permit obtained by such person has expired, unless and until such person obtains a Permit Extension in accordance with 310 CMR 40.0720.

(2) Content of Application. In addition to the requirements in 310 CMR 40.0703, an application for a Permit Extension shall include the following:

- (a) a statement as to why the extension is sought; and
- (b) each applicant's compliance history, as required by 310 CMR 40.0703(9)(b), since the effective date of his or her permit only.

40.0707: Additional Application Submittal Requirement for Tier I Permit Major Modifications

(1) General. An application for a Major Permit Modification shall be filed to:

- (a) upgrade a Tier IC disposal site to Tier IA or Tier IB;
- (b) upgrade a Tier IB disposal site to Tier IA;
- (c) downgrade a Tier IC disposal site to a Tier II;
- (d) downgrade a Tier IB disposal site to a Tier IC or Tier II;
- (e) downgrade a Tier IA disposal site to a Tier IB, Tier IC or Tier II; or
- (f) request a modification of any terms or conditions in a Tier I Permit, except as provided by 310 CMR 40.0720.

(2) No Tier I Permit shall be deemed modified unless and until the permittee(s) has filed an application for a Major Permit Modification and such Modification has been approved pursuant to 310 CMR 40.0720.

(3) Content of Application. In addition to the requirements in 310 CMR 40.0703, an application for a Major Permit Modification shall include the following:

- (a) a description of the modification sought;
- (b) if the application is made to modify a Permit category or to reclassify a disposal site as Tier II, an LSP Tier Classification Opinion prepared in accordance with 310 CMR 40.0510(3);
- (c) if the application is made to modify permit terms or conditions, an LSP Opinion as to why the permit terms or conditions are no longer necessary or appropriate, including a report detailing any new or additional information to justify the modification(s) sought, if the application is to modify terms or conditions in a permit;
- (d) each applicant's compliance history, as required by 310 CMR 40.0703(9)(b), since the effective date of his or her permit only; and
- (e) if the application was filed:
  - 1. to upgrade the Tier I Permit Classification; or
  - 2. to downgrade the Tier I Permit Classification to a Tier IB or a Tier IC;a statement affirming that notice was submitted for publication in the Environmental Monitor as required by 310 CMR 40.0703(8)(g), and a photocopy of such notice.

40.0710: Incomplete Permit Applications

An application for a Tier I Permit shall not be deemed complete if the RP, PRP or Other Person who submitted the application (the applicant):

- (1) fails to include all required information, as listed in 310 CMR 40.0703 through 40.0709, and all further information requested by the Department pursuant to 310 CMR 40.0703(11);

40.0710: continued

- (2) fails to demonstrate completion of the public notice requirements described in 310 CMR 40.0703(8);
- (3) fails to include all information required by 310 CMR 40.0000;
- (4) fails to include the applicable fee established by 310 CMR 4.00; or
- (5) fails to fill out the application correctly.

40.0720: Approval Process for Tier I Permit Applications, Major Modifications, Transfers or Extensions.

- (1) General. 310 CMR 40.0720 through 40.0729, cited collectively as 310 CMR 40.0720, together with 310 CMR 4.04, define the approval process for Tier I Permit Applications or a Modification, Transfer or Extension of a Tier I Permit.
- (2) The Department shall consider the criteria in 310 CMR 40.0730(1) and 40.0731(1) and all other available information when reviewing a Tier I Permit Application or a Modification, Transfer or Extension submitted pursuant to 310 CMR 40.0700, and when making the following decisions:
  - (a) to grant a Permit, Modification, Transfer or Extension;
  - (b) to grant a Permit, Modification, Transfer or Extension with conditions pursuant to 310 CMR 40.0740(3)(n); or
  - (c) to deny a Permit, Modification, Transfer or Extension.
- (3) Commencement of Schedule. For purposes of 310 CMR 40.0720 and 310 CMR 4.04(2)(a), the computation of time periods shall commence on the day following the day a complete Tier I 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.
- (4) A Tier I Permit or a Major Modification, Transfer or Extension of a Tier I Permit shall be presumed approved without conditions 45 days from the date the complete Application was received by the Department pursuant to 310 CMR 40.0720(3), unless prior to the end of the 45 day period, the Department provides to the applicant(s) one of the following:
  - (a) a Decision to deny the applicant a Tier I Permit or a Major Modification, Transfer or Extension of a Tier I Permit, based upon the criteria in 310 CMR 40.0730 and 40.0731;
  - (b) a Decision to grant the applicant a Tier I Permit or a Major Modification, Transfer or Extension of a Tier I Permit with conditions pursuant to 310 CMR 40.0740(3)(n), based upon the criteria in 310 CMR 40.0730; 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 40.0730(1), the Department requires an additional 45 days from the date the Notice of Extended Review is issued by the Department to complete its review.
- (5) If the Department issues the applicant(s) a Notice of Extended Review in accordance with 310 CMR 40.0720(4)(c), the Tier I Permit or a Major Modification, Transfer or Extension of a Tier I Permit shall be presumed approved without conditions 45 days from the date the Department issued the Notice of Extended Review, unless prior to the end of the 45 day period, the Department provides to the applicant(s) with one of the following:
  - (a) a Decision to deny the applicant a Tier I Permit or a Major Modification, Transfer or Extension of a Tier I Permit, based upon the criteria in 310 CMR 40.0730 and 40.0731; or
  - (b) a Decision to grant the applicant a Tier I Permit or a Major Modification, Transfer or Extension of a Tier I Permit with conditions pursuant to 310 CMR 40.0740(3)(n), based upon the criteria in 310 CMR 40.0730.
- (6) Presumptive approval of a Tier I Permit, Major Modification, Transfer or Extension pursuant to 310 CMR 40.0720 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.

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(7) Extensions of Review Schedule by Agreement. The applicant and the Department may, by written agreement, extend any schedule for timely action or individual portion thereof for a Tier I Permit application pursuant to 310 CMR 40.0720 or 310 CMR 4.00.

(8) Tier I Permit, Transfer, Extension or Major Modification Applications Pending as of June 27, 2003. Unless otherwise specified by the Department, Tier I Permit, Transfer, Extension or Major Modification applications pending approval as of June 27, 2003 shall be presumed approved without conditions 45 days from June 27, 2003 or 75 days from the date such application was submitted, whichever date is sooner.

40.0725: Minor Permit Modifications

(1) General. An RP, PRP or Other Person shall notify the Department in writing of any of the following changes after a Permit application has been submitted and prior to submitting a Class A or B Response Action Outcome or Downgradient Property Status for the disposal site where response actions are being conducted under the Permit:

- (a) change(s) in permittee's name or address;
- (b) change in the LSP-of-Record;
- (c) change in the Primary Representative;
- (d) any omissions that do not materially affect the nature or complexity of the permitted response action;
- (e) the addition of one or more RPs, PRPs, or Other Persons as permittees; and
- (f) changes of similar scope to the permit.

(2) Notification of a Minor 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 the modification sought;
- (c) an Opinion of a Licensed Site Professional stating the reasons for the modification if the modification is related to any information for which such LSP has submitted an Opinion;
- (d) the certification required by 310 CMR 40.0009; and
- (e) if the application is to add one or more permittees, the following shall be included:
  1. the certification required by 310 CMR 40.0009 from the new applicant(s);
  2. written consent by the new applicant(s) to the terms and conditions of the Tier I Permit;
  3. the certification required by 310 CMR 40.0703(9)(a) by the new applicant(s);
  4. the compliance history of the new applicant, as required by 310 CMR 40.0703(9)(b); and
  5. written consent from the existing permittee(s) or the Primary Representative, whichever is applicable, to the new applicant(s) joining the Tier I Permit.

(3) Minor permit modifications shall not be subject to processing requirements under 310 CMR 40.0720 or 310 CMR 4.00.

40.0730: Department Review of Tier I Permit Applications, Major Modifications, Transfers, or Extensions

(1) In reviewing a Tier I Permit Application or a Modification, Transfer, or Extension of a Tier I Permit, the Department shall consider the following:

- (a) the existence, source, nature, and extent of a disposal site;
- (b) the nature and extent of danger to health, safety, public welfare and the environment posed by the disposal site;
- (c) the magnitude and complexity of the actions necessary to assess, contain, or remove the oil and/or hazardous material in question;
- (d) the extent to which there are legally enforceable standardized methods and criteria available for response actions;
- (e) the extent to which the Department is persuaded that the applicant has the ability and willingness to perform necessary response actions;
- (f) the applicant's compliance history with Departmental and other applicable regulations that is material to the disposal site;
- (g) the extent to which Departmental oversight is necessary to ensure compliance with M.G.L. c. 21E and 310 CMR 40.0000;

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- (h) any permit conditions developed pursuant to 310 CMR 40.0740(3)(n) to which the applicant has consented; and
- (i) any other factor the Department deems relevant to the decision.

(2) The Department shall consider the criteria in 310 CMR 40.0730(1) when reclassifying a Tier Classified disposal site pursuant to 310 CMR 40.0583.

40.0731: Criteria For Denials of Tier I Permits, Major Modifications, Transfers or Extensions

(1) The Department may deny a Tier I Permit, Modification, Transfer or Extension if it determines that:

- (a) the applicant has submitted information in the application for a Tier I Permit, Modification, Transfer or Extension that he or she knew or reasonably should have known was false or misleading;
- (b) the application is not completed by an applicable deadline;
- (c) the Department is not persuaded that the applicant is able or willing to perform necessary response actions in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable laws;
- (d) the Department is not persuaded that the applicant can properly conduct response actions pursuant to the criteria in 310 CMR 40.0730, after evaluation of information in the Tier Classification Submittal, the application for a Tier I Permit, Modification, Transfer or Extension, and other information material to the disposal site which is available to the Department;
- (e) a valid Tier I Permit is in effect for such disposal site or for a portion of such disposal site; or
- (f) the Department intends to undertake or arrange for the performance of necessary response actions at the disposal site.

40.0740: Conditions Applicable to all Tier I Permits

(1) A permittee performing a response action pursuant to a Tier I Permit, Modification, Transfer or Extension shall comply at all times with M.G.L. c. 21E, 310 CMR 40.0000, the terms and conditions of the permit and any other applicable federal, state or local laws.

(2) In every proceeding, the burden shall be on the permittee to demonstrate compliance with the terms and conditions of a Tier I Permit, Transfer, Modification or Extension at all times.

(3) All Tier I Permits, Modifications, Transfers or Extensions shall be conditioned on at least the following:

- (a) compliance by the RP, PRP, or Other Person undertaking response actions at a disposal site under a Tier I Permit, Modification, Transfer or Extension with the applicable submittal and response action deadlines set forth at 310 CMR 40.0000;
- (b) notification in writing to the Department:
  - 1. as required in 310 CMR 40.0500;
  - 2. upon gaining knowledge of any technical, financial or legal inability to perform any necessary response action, in accordance with 310 CMR 40.0172;
  - 3. upon a decision by a permittee who is performing response actions as an Other Person to not proceed as required by the permit pursuant to 310 CMR 40.0170(10); and
  - 4. of any change in the LSP-of-Record for the disposal site no later than ten days after the effective date of such change through the filing of a Minor Permit Modification by the permittee in accordance with 310 CMR 40.0725;
- (c) compliance with:
  - 1. all applicable submittal requirements, including but not limited to, scopes of work, Status Reports, Completion Statements, Phase Reports, and RAOs;
  - 2. all requirements for record keeping and document retention including, but not limited to, 310 CMR 40.0014, 310 CMR 40.0022 and 310 CMR 40.0023;
  - 3. the Notification Regulations, 310 CMR 40.0300, in the event of discovery of a new release located at the disposal site, threat of release or Imminent Hazard;
  - 4. the management procedures for excavated soils and wastes and requirements for remedial air emissions set forth in 310 CMR 40.0030 and 310 CMR 40.0040; and
  - 5. all public involvement activities required by 310 CMR 40.1400 through 40.1406;

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- (d) inclusion of the Release Tracking Number(s) and the permit number on documents submitted to the Department with respect to the disposal site;
- (e) certification of documents submitted to the Department as required by 310 CMR 40.0009;
- (f) evaluation of the need to perform Immediate Response Actions in accordance with 310 CMR 40.0400 as new or additional information about the disposal site is obtained;
- (g) modification or cessation of any response action as necessary to maintain compliance with any permit condition or to prevent an actual or potential threat to health, safety, public welfare, or the environment;
- (h) notification, orally or in writing, to the Department within 72 hours of obtaining knowledge of the need to modify or cease any response actions for the reasons in 310 CMR 40.0740(3)(g); provided that any such oral notification shall be confirmed by the permittee in writing within 60 days of such oral notice and any written notice shall include a Status Report prepared by an LSP; and timely remediation of any adverse impacts to health, safety, public welfare or the environment that result from the performance of response actions;
- (i) at disposal sites where groundwater investigation is necessary, delineation of the vertical and horizontal extent of contamination, identification and confirmation of groundwater flow directions, identification of groundwater migration pathways including, but not limited to, the identification of possible partitioning of dissolved volatile organic compounds at the water table interface which may lead to vapor transport into subsurface structures, homes or other occupied or unoccupied buildings, and monitoring of groundwater wells, discharges and/or other monitoring points in a manner which provides for the timely development of representative information about conditions and changes in conditions at the disposal site;
- (j) acquisition of all required federal, state and local permits;
- (k) proper operation and maintenance of all treatment, storage, abatement or control systems and of all equipment required to continue or complete response actions;
- (l) authorization for personnel and authorized agents of the Department to enter, at reasonable times and upon the presentation of credentials, any premises owned or controlled by the permittee for the purpose of investigating, sampling, or inspecting any records, conditions, equipment, practice or property relating to response actions at the disposal site, or protecting health, safety, public welfare, or the environment;
- (m) notification upon a change of the Primary Representative as required by 310 CMR 40.0703(7); and
- (n) any other conditions necessary to ensure the appropriate level of Departmental oversight of response actions.

(4) A Tier I Permit does not grant any property rights or exclusive privileges, nor does it authorize any injury to private property or invasion of property rights.

(5) A Tier I Permit Extension obtained under 310 CMR 40.0706 and 310 CMR 40.0720 does not forgive an RP's, PRP's or Other Person's noncompliance with any provisions of 310 CMR 40.0000, including but not limited to, noncompliance that resulted from the late submittal or failure to submit an IRA Plan, Status Report, Phase I Report, Tier Classification, Phase II Report, Phase III Remedial Action Plan, Phase IV Remedy Implementation Plan, and/or failure to achieve a Response Action Outcome. A Tier I Permit Extension 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 shall not be construed as approval by the Department of the scope or adequacy of plans or of the response actions as actually conducted.

40.0750: Tier I Permit Effective Date

- (1) A Tier I Permit shall become effective:
  - (a) 45 days from the date the complete Tier I Permit application is received by the Department, if the Permit is presumptively approved without conditions pursuant to 310 CMR 40.0720(4);
  - (b) on the date the Department issues its written approval of the Tier I Permit, if approved with conditions;
  - (c) 45 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 40.0720(4)(c) and the Permit is presumptively approved without conditions pursuant to 310 CMR 40.0720(5); or



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(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 Tier I Permit application pursuant to 310 CMR 40.0720(6) or 310 CMR 4.00.

40.0751: Duration of Tier I Permits

- (1) A Tier I Permit shall be effective for five years from the effective date of the initial Permit, unless otherwise established by the Department.
- (2) Any modification or transfer of a permit shall be effective for the remaining duration of the permit being transferred or modified.
- (3) A Tier I Permit Extension shall be effective for a period of two years beyond the expiration date of the initial Tier I Permit or most recent Tier I Permit Extension, unless otherwise specified by the Department.

40.0760: Tier I Permit Suspension and Revocation

- (1) The Department may suspend or revoke any permit for cause including, but not limited to, the following:
  - (a) any violation of M.G.L. c. 21E, 310 CMR 40.0000, or 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.
- (2) Prior to the suspension or revocation of a Tier I permit for cause, the Department shall issue a notice of intent to suspend or revoke a 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) Notwithstanding 310 CMR 40.0760(2), suspension or revocation of a permit because of nonpayment of annual compliance assurance fees shall be processed in accordance with 310 CMR 4.03(7).

40.0770: Right to Request An Adjudicatory Hearing

- (1) Any person who is aggrieved by a decision of the Department with respect to any Tier I Permit application may request an adjudicatory hearing before the Department in accordance with 310 CMR 40.0050 and 40.0770(3) if:
  - (a) the Department issues a permit for a category higher than that stated in the LSP Tier Classification Opinion; or
  - (b) the Department denies the applicant a permit, unless the Department notifies the applicant in the permit decision that the Department intends to undertake or arrange for the performance of necessary response actions at the disposal site; or
  - (c) the Department imposes conditions pursuant to 310 CMR 40.0740(3)(n) without the applicant's consent.
- (2) A person shall be deemed to have waived his or her right to an adjudicatory hearing if he or she failed to raise the matter of his or her complaint at the appropriate point during the processing of the application in accordance with 310 CMR 40.0720, provided that a matter may be raised upon a showing that it is material and that it was not reasonably possible with due diligence to have been raised during the processing of the application.
- (3) A request for an adjudicatory hearing pursuant to 310 CMR 40.0770 shall:
  - (a) comply with 310 CMR 40.0050 and 310 CMR 1.00;
  - (b) include a copy of the permit decision; and
  - (c) state the reason(s) the permit decision does not comply with 310 CMR 40.0000;

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(4) The adjudicatory hearing shall be limited to the issue of whether the Department's permit decision is in accordance with the criteria set forth in 310 CMR 40.0730 or 310 CMR 40.0731.

(5) When a request for an adjudicatory hearing is made following receipt of a notice of intent to suspend or revoke a Tier I Permit for cause, allegations made at the adjudicatory hearing shall be limited to whether the Department has cause to suspend or revoke the permit.

#### 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:

- (a) 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 Response Action Outcome under 310 CMR 40.1000; and
- (b) all Locations To Be Investigated and disposal sites described in 310 CMR 40.0600 for which a Phase I investigation has been completed and where additional response actions are necessary to assess the disposal site and/or evaluate and implement Comprehensive Remedial Actions.

##### 40.0810: General Provisions for Comprehensive Response Actions

(1) Comprehensive Response Actions shall be performed in 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 Response Action Outcome as described in 310 CMR 40.1000 is reached for the disposal site.

(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.

40.0810: continued

(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, notices or documents required as part of Comprehensive Response Actions under 310 CMR 40.0800. When technical justification is used to forego 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: Phase II Scope of Work

- (1) Except as provided in 310 CMR 40.0834(3), Department approval of the Phase II Scope of Work shall not be required.
- (2) Except as otherwise specified by the Department under 310 CMR 40.0834(3), the Phase II Scope of Work shall include:
  - (a) the 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;
  - (b) the name and license number of the LSP engaged or employed by the person conducting the Comprehensive Response Action; and
  - (c) a 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) The Phase II Report shall set forth in narrative and, to the extent possible, in maps, graphs, and tables, the approach, methods and results of the Phase II - Comprehensive Site Assessment.

(PAGES 1613 THROUGH 1616 ARE RESERVED FOR FUTURE USE.)

40.0835: continued

(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;
- (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:
  - 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, surface water, sediment, and food chain pathways; and
  - 3. an evaluation of the potential for groundwater 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 source(s), nature, and vertical and horizontal extent of contamination at the disposal site, presence and distribution of any non-aqueous phase liquids, 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 a thorough discussion of the reasoning and results used to support the findings, and indicate and support the outcome of the Phase II Investigation under 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).
- (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 Response Action Outcome 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 Class A or Class B Response Action Outcome under 310 CMR 40.1000 have been met, and a Response Action Outcome Statement supported by information provided in the Phase II report shall be submitted to the Department.
- (2) As described in 310 CMR 40.0530, a disposal site shall be rescored using the Numerical Ranking System specified in 310 CMR 40.0500 when the Phase II Comprehensive Site Assessment discloses new or additional information which may affect the disposal sites's Tier Classification or permit category.

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 Response Action Outcome in accordance with 310 CMR 40.1000 has not yet been achieved.

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- (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 Class C Response Action Outcome 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 Class C Response Action Outcome 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 Class A Response Action Outcome 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.
- (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;
  - (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 Class A Response Action Outcome 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:

- (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.



40.0858: continued

- (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 consumption of energy resources in the operation of the alternatives, and externalities associated with the use of those resources.
- (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)(h) 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) A remedial action alternative which relies upon on-site disposal, isolation, or containment of oil and/or hazardous material shall not be selected unless it has been demonstrated through a detailed evaluation using the criteria described in 310 CMR 40.0858 to, on balance, compare favorably to all other alternatives identified by the initial screening in terms of its effectiveness, reliability, degree of risk reduction, timeliness, cost-effectiveness and overall benefits.

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; and
  - (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 Concentration Limits.
  
- (2) An evaluation of the feasibility of implementing a Permanent Solution shall be performed in all cases where the selected Comprehensive Remedial Action alternative is a Temporary Solution and it can not be demonstrated through a detailed evaluation using the criteria described in 310 CMR 40.0858 that the implementation of a Temporary Solution is a more cost-effective and timely remedial alternative than the implementation of a feasible Permanent 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 a Permanent Solution is selected as the Comprehensive Remedial Action alternative, unless the Permanent Solution selected is designed to achieve background and a Class A-1 Response Action Outcome pursuant to 310 CMR 40.1000.
  
- (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 Action alternative is selected as a Permanent Solution which 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, as that term is defined in 310 CMR 40.0996.
  
- (5) A remedial action alternative that would achieve a Permanent Solution, would reduce 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, or reduce concentrations of oil and hazardous material in soil at a disposal site to levels at or below applicable soil Upper Concentration Limits 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);
  - (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 remedial action alternative 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

40.0860: continued

(c) the identified alternative cannot comply with or be modified to comply with applicable regulatory requirements.

(7) Benefit-Cost Analysis. The benefits of implementing a remedial action alternative to achieve a Permanent Solution or Temporary Solution and the benefits, when performing a Permanent Solution, of reducing the concentrations of oil and hazardous material in the environment at the disposal site to levels which achieve or approach background or reducing the concentrations of oil and hazardous material in soil at a disposal site to levels at or below applicable soil Upper Concentration Limits shall justify the related costs unless:

- (a) the incremental cost of conducting the remedial action alternative 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 a remedial action alternative by providing information of sufficient detail on the process by which the recommended remedial action alternative was developed and evaluated.

(2) A Remedial Action Plan shall contain:

- (a) a description of all remedial action alternatives initially identified and the results of the initial screening;
- (b) where a detailed evaluation is required, a discussion of how the 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;
- (c) justification for the selection of the proposed remedial action alternative;
- (d) where required, the results of the evaluation under 310 CMR 40.0860 of whether the implementation of a Permanent or Temporary Solution is feasible;
- (e) if a Permanent Solution is selected as the remedial action alternative, a discussion of how the alternative is likely to achieve a level of No Significant Risk;
- (f) if a Temporary Solution is selected as the remedial action 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;
- (g) if a Permanent Solution is selected, 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 and a Class A-1 Response Action Outcome;
- (h) if the selected remedial action alternative is a Temporary Solution, a detailed description of definitive and enterprising steps pursuant to 310 CMR 40.0580 to identify and develop an alternative that is a likely Permanent Solution and a schedule for the implementation of such steps. Such steps may include:
  - 1. performing pilot tests or bench-scale studies;
  - 2. investigating innovative ways to reduce the costs or the risks of implementing a specific alternative; and
  - 3. developing new technologies; and
- (i) a projected schedule for implementation of Phase IV activities pursuant to 310 CMR 40.0870.

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 as to the Class of Response Action Outcome under 310 CMR 40.1000 that the selected remedial action alternative is likely to achieve, and whether the Phase III conforms with applicable Phase III requirements and any approval conditions specified by the Department, and meets the Phase III performance standards; 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 310 CMR 40.1403(3)(e), and may include, but are not limited to those activities set forth at 40.1406(2).
- (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 remedial action alternative shall be developed and implemented pursuant to Phase IV requirements under 310 CMR 40.0870.

40.0870: Phase IV - Implementation of the Selected Remedial Action 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 Action as described in 310 CMR 40.0875; and
  - (c) implementation and final inspection of the Comprehensive Remedial Action.
- (3) Where appropriate, reports and plans prepared required in Phase IV may be combined.

40.0871: continued

(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 Action.

(5) All federal, state and local permits, licenses or approvals and any agreements necessary for construction and operation of the Comprehensive Remedial Action shall be secured as early in Phase IV as possible in order to avoid delays in implementing the remedial action.

40.0872: Performance Standards

- (1) The Phase IV Implementation of the Selected Remedial Action Alternative shall:
  - (a) ensure that the information, plans and reports related to the design, construction, and implementation of the selected remedial action alternative are sufficiently developed and documented to support the implementation of the Comprehensive Remedial Action;
  - (b) ensure that following initial implementation, the Comprehensive Remedial Action 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 Comprehensive Remedial Action.
- (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.
- (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 remedial action 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 Action including as appropriate and without limitation:
    1. goals of the remedial action, including performance requirements of the remedial systems, and/or the requirements for achieving a Response Action Outcome under 310 CMR 40.1000;
    2. any significant changes in or new information related to disposal site conditions which were not included in previous submittals;
    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:

40.0874: continued

- 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 remedial action 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 remedial action alternative;
  9. identification of site-specific characteristics which may affect or be affected by the design, construction, or operation of the selected remedial action alternative, including, but not limited to:
    - a. relationship of the selected remedial action 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 remedial action 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 remedial action.
- (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 remedial action alternative shall be provided in the RIP and include, without limitation, the following:
1. as appropriate, plans, material specifications, and procedures related to the construction of the selected remedial action alternative; and
  2. a schedule for the design and construction of the remedial action alternative.
- (d) Operation, Maintenance and/or Monitoring (OMM). In cases where the Comprehensive Remedial Action for the disposal site requires operation, maintenance and/or monitoring activities to ensure the effective performance and integrity of the Comprehensive Remedial Action and/or the achievement of remedial goals, 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 the terms of applicable permits, approvals or licenses. At a minimum, the results from operation, maintenance and/or monitoring of a remedial action shall be documented and submitted to the Department every six months in report form as described in 310 CMR 40.0892.
- (e) a health and safety plan, to be followed during the construction and implementation of the Comprehensive Remedial Action, that adheres to the procedures described in 310 CMR 40.0018;

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- (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 Comprehensive Remedial Action, 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 Tier IA disposal site where a Phase IV is conducted;
  - (b) any disposal site where an engineered 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
  - (c) any disposal site where the remedial action 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 Comprehensive Remedial Action 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.

40.0878: Final Inspection Report

- (1) Upon completion of construction activities and initial implementation of the Comprehensive Remedial Action, 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 Comprehensive Remedial Action.
- (2) The final inspection shall be performed to ensure that:
  - (a) the Comprehensive Remedial Action has been constructed in accordance with construction plans under 310 CMR 40.0874(3)(c) or appropriate modifications to such plans; and
  - (b) following initial implementation and operation and any modifications or adjustments necessary to optimize the performance of remedial systems, the Comprehensive Remedial Action 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 Comprehensive Remedial Action 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 Comprehensive Remedial Action.
- (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.

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), and may include, but are not limited to those activities set forth at 310 CMR 40.1406(2).
- (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

- (1) Upon completion of Phase IV activities the following outcomes are possible:
  - (a) the requirements of a Class A or C Response Action Outcome under 310 CMR 40.1000 have been met, and no additional operation, maintenance and/or monitoring of the remedial action is necessary to ensure the integrity of the RAO. A Class A or C Response Action Outcome Statement shall be submitted to the Department;
  - (b) a Response Action Outcome has not yet been achieved, and operation, maintenance and/or monitoring of the Comprehensive Remedial Action under Phase V is necessary to achieve a Response Action Outcome under 310 CMR 40.1000; or
  - (c) the requirements of a Class C Response Action Outcome under 310 CMR 40.1000 have been met, and Post-RAO operation, maintenance and/or monitoring of the remedial action under 310 CMR 40.0896 is necessary to ensure that the conditions upon which the Class C RAO is based are maintained and/or that further progress toward a Permanent Solution is made.

40.0890: Phase V - Operation, Maintenance, and/or Monitoring

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-RAO Operation, Maintenance and/or Monitoring activities at disposal sites.

40.0891: General Provisions

- (1) The provisions of Phase V shall apply to disposal sites where Phase IV response actions have been completed, a Response Action Outcome has not yet been achieved, and operation, maintenance and/or monitoring of the Comprehensive Remedial Action is necessary to achieve a Response Action Outcome under 310 CMR 40.1000.



40.0891: continued

- (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, modifications to remedial systems, or as otherwise necessary to ensure that the Comprehensive Remedial Action achieves design standards and remedial goals.
- (4) Inspection and monitoring results shall be documented and submitted to the Department in report form 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 or licenses. At a minimum, information and data on operation and maintenance and/or monitoring conducted pursuant to this section shall be gathered and submitted to the Department every six months in a report as described in 310 CMR 40.0892.

40.0892: Inspection and Monitoring Reports

Inspection and/or monitoring reports shall include, without limitation, the following:

- (1) a description of the type and frequency of inspection and/or monitoring activities conducted;
- (2) a description of any significant modifications of inspection and/or monitoring program made since the submission of the preceding Inspection and Monitoring Report;
- (3) a description of any conditions or problems noted during the inspection and/or monitoring period which are or may be affecting the performance of the remedial action;
- (4) a description of any measures taken to correct conditions which are affecting the performance of the remedial action;
- (5) the results of sampling analyses and screening conducted as part of the monitoring and/or inspection program; and
- (6) the name, license number, signature and seal of the LSP.

40.0893: Remedy Operation Status

- (1) Applicability. Remedy Operation Status applies to disposal sites where a remedial system which relies upon Active Operation and Maintenance is being operated for the purpose of achieving a Permanent Solution pursuant to 310 CMR 40.0890.
- (2) Performance Standard for Remedy Operation Status. To achieve and maintain Remedy Operation Status for a disposal site:

40.0893: continued

- (a) the remedial system shall be adequately designed in accordance with 310 CMR 40.0870 to achieve a Permanent Solution;
- (b) the remedial system shall be operated and maintained in accordance with the requirements of 310 CMR 40.0890;
- (c) each source of oil and/or hazardous material shall be eliminated or controlled in accordance with 310 CMR 40.1003(5);
- (d) any substantial hazard shall be eliminated; and
- (e) at a minimum, information and data on operation and maintenance and/or monitoring shall be gathered and submitted to the Department every six months in a report as described in 310 CMR 40.0892.

(3) Content of Submittal. 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 and 310 CMR 40.0893(2); 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 Response Action Outcome within five years of the effective date of a Tier I permit or initial Tier II Classification as described in 310 CMR 40.0550 and 40.0560, respectively, shall not apply, provided the requirements of 310 CMR 40.0893 continue to be met.

(5) 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 in accordance with 310 CMR 40.0893(5)(b); or
  - 2. the person providing the Remedy Operation Status Opinion notifies the Department in accordance with 310 CMR 40.0893(5)(c) that such person intends to discontinue operation of the remedial system upon which the Status is based;
- (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, 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. Remedy Operation Status shall terminate unless the remedial system 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;
- (c) Any person who intends to discontinue operation of the remedial system on which the Remedy Operation Status is based shall provide written notice to the Department. Remedy Operation Status shall terminate upon the Department's receipt of such notice; and
- (d) Any person conducting response actions at a disposal site where Remedy Operation Status has been terminated shall have two years from the date of the termination to achieve a Response Action Outcome.

40.0894: Phase V Completion Statement

(1) Upon achievement of a Class A or Class C Response Action Outcome 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.

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- (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 40.0895;
    2. except where operation, maintenance and/or monitoring are continuing under 310 CMR 40.0896, 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 40.0896, 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, 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:

- (1) the requirements of a Class A Response Action Outcome 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 RAO. A Class A Response Action Outcome Statement shall be submitted to the Department;
- (2) the requirements of a Class C Response Action Outcome 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 RAO. A Class C Response Action Outcome Statement shall be submitted to the Department; or
- (3) the requirements of a Class C Response Action Outcome under 310 CMR 40.1000 have been met, a Class C Response Action Outcome Statement has been submitted to the Department, and additional Post-RAO Operation, Maintenance, and/or Monitoring of the remedial action alternative under 310 CMR 40.0896 is necessary to ensure that the conditions upon which the Class C RAO is based are maintained and/or that further progress toward a Class A RAO is made.

40.0897: Post-RAO Operation, Maintenance and/or Monitoring

- (1) 310 CMR 40.0896 shall apply to any disposal site where:
  - (a) a Class C Response Action Outcome Statement for a Temporary Solution under 310 CMR 40.1000 has been submitted to the Department; and
  - (b) the operation, maintenance and/or monitoring of the Comprehensive Remedial Action is necessary to ensure that the conditions upon which the Class C RAO is based are maintained and/or that further progress toward a Class A Response Action Outcome is made.
- (2) Post-RAO operation, maintenance and/or monitoring activities may include the following:

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- (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 Class C Response Action Outcome 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 40.0892.

(3) Post-RAO operation, maintenance and/or monitoring activities shall be conducted in accordance with the requirements set forth in 310 CMR 40.0891 (3) through (5) and 310 CMR 40.0892.

(4) Periodic Evaluation of Temporary Solutions shall be conducted pursuant to 310 CMR 40.0580.

#### 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.

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(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 310 CMR 40.0999.

(3) Notwithstanding the criteria described in 310 CMR 40.0902(2), 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 shall be considered to pose No Significant Risk. Disposal sites at which all oil and hazardous material have been reduced to background levels are eligible for a Class A-1 Response Action Outcome, as described in 310 CMR 40.1036(1), 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 Response Action Outcome 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, surface water, air, sediment and the food web. 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.

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(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 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.

(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:



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- (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); and
  - (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.
- (4) If the Site Activities and Uses considered in the Risk Characterization will be limited in any way through Activity and Use Limitations, as described in 310 CMR 40.1012, 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 the limitations and describe the Site Activities and Uses which must be prohibited by such Activity and Use Limitations or government restrictions.
- (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.
  - (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.

## 40.0924: continued

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. In GW-1 groundwater areas, for the comparison to drinking water standards listed in 310 CMR 22 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. For current or potential soil exposures, the following depths shall be considered with any applicable site-specific information when determining Exposure Points:
    - a. zero to three feet for exposures associated with surficial activity;
    - b. zero to six feet for exposures associated with utility installation and repair; and
    - c. zero to 15 feet for exposures associated with excavation scenarios and building construction.
  4. For other exposures, the Exposure Point shall be identified considering the timing of the exposure, the nature of the potential receptors and the likely frequency of exposure.
- (3) 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.
- (4) 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.
- (3) In determining or estimating the Exposure Point Concentration, the objective shall be to identify a conservative estimate of the arithmetic mean concentration which represents the average concentration contacted by a receptor at the Exposure Point over the period of exposure. Concentrations identified to evaluate Upper Concentration Limits or Hot Spots shall provide a conservative estimate of the arithmetic average concentration in the specified area.
  - (a) The use of upper percentiles, or maximum concentrations is appropriate for certain evaluations, and shall be considered when conducting:
    1. evaluations of acute exposures;
    2. evaluations of chemicals associated with lethal or severe health effects from short-term exposures; or
    3. screening evaluations which intentionally over-estimate potential exposures to streamline the assessment process.
  - (b) The use of upper percentile, or maximum concentrations is appropriate when a simple arithmetic average of the available data is likely to underestimate the true mean, including:
    1. evaluations of site conditions for which there is insufficient data or other information to adequately characterize the site (*e.g.* when there is insufficient data to adequately characterize the effects of seasonal variation on groundwater contaminant concentrations);
    2. evaluations using concentration data with a high degree of variability. The acceptability of site data for arithmetic averaging for Exposure Point Concentrations, comparison to Upper Concentration Limits or determination of Hot Spots shall be demonstrated by any one of the following criteria:
      - a. For discrete or composite samples, the arithmetic average is less than or equal to the applicable standard or risk-based concentration limit, seventy-five percent 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.
      - b. A valid justification is provided indicating that the sample mean is unlikely to underestimate the true mean of the concentration of oil or hazardous material at the Exposure Point. Such a demonstration may include, but need not be limited to, consideration of the observed distribution of the data, sampling strategy, graphical representation of analytical results, and/or statistical analyses with sufficient Power and Confidence.
  - (c) Assessments conducted using a probabilistic analysis may use a distribution of Exposure Point Concentrations, provided that the data are sufficient to provide a reliable distribution and the use of a distribution is consistent with the nature of the evaluation being performed.
- (4) Exposure Point Concentrations may be developed using monitoring data gathered during the site investigation or, when appropriate, through the use of fate and transport models generally accepted by the environmental modelling community.
- (5) Any mathematical equations or models used to identify Exposure Point Concentrations shall be clearly documented.

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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), 310 CMR 40.0975(6)(a), (b) and (c), and 310 CMR 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 Response Action Outcome.

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:
    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

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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 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.;
      - 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 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 (MGL 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;

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- 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:
    - 1. 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;
    - 2. forecasts of water demands for the municipality(ies) in which the groundwater 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 for forecasting future water needs, using the most current data available);
    - 3. 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;
    - 4. 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.;
  - 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; 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

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- 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 pursuant to 310 CMR 40.1003 demonstrating that the property(ies) served by the private water supply well has been connected to a public water supply system; and
    - 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. in accordance with 310 CMR 40.1071, a Grant of Environmental Restriction which prohibits the use of the private water supply or the installation of new private water supplies has been approved by the Commissioner and recorded and/or registered; 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) 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 occupied building or structure, 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.



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.

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(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.

(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.

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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)(b) and (c); or
    3. an adult's frequency and intensity of use are both considered to be high pursuant to 310 CMR 40.0933(4)(b) and (c); 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)(b) and (c).
- (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)(b) and (c); 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)(b) and (c); 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)(b) and (c); 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)(b) and (c).
- (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)(b) and (c); 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)(b) and (c); 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)(b) and (c); 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 40.0933(9) contains the Soil Category Selection Matrix.

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	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.										

40.0940: Methods for Characterizing Risk of Harm

40.0941: 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:

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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.
- (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.

40.0953: 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 in the accessible surficial soil (as close to the ground surface as possible but in no case greater than 12 inches) shall be considered in the development of the Exposure Point Concentrations.

40.0953: continued

- (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.
- (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 U.S. Environmental Protection Agency 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 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 greater than a non-cancer risk limit of a Hazard Index equal to ten.
  - (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.



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(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 Limitations for the site.

- (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.
- (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.

(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 any of the following conditions 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 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 1000 square feet in sediment within one foot of the sediment surface;
- (c) Continuing discharge of contaminated groundwater to surface water where the levels 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; or
- (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 Substantial Hazard assessment is required if a condition of No Significant Risk exists and the site is eligible for a Class A or Class B Response Action Outcome.

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.
- (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).
- (7) 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 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	GW-2	GW-3
		Standard	Standard	Standard
		µg/liter (ppb)	µg/liter (ppb)	µg/liter (ppb)
ACENAPHTHENE	83329	20	NA	5,000
ACENAPHTHYLENE	208968	300	NA	3,000
ACETONE	67641	3,000	50,000	50,000
ALDRIN	309002	0.5	0.5	10
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120127	2,000	NA	3,000
ANTIMONY	7440360	6	NA	300
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440382	50	NA	400
BARIUM	7440393	2,000	NA	30,000
BENZENE	71432	5	2,000	7,000
BENZO(a)ANTHRACENE	56553	1	NA	3,000
BENZO(a)PYRENE	50328	0.2	NA	3,000
BENZO(b)FLUORANTHENE	205992	1	NA	3,000
BENZO(g,h,i)PERYLENE	191242	300	NA	3,000
BENZO(k)FLUORANTHENE	207089	1	NA	3,000
BERYLLIUM	7440417	4	NA	50
BIPHENYL, 1,1-	92524	400	NA	50,000
BIS(2-CHLOROETHYL)ETHER	111444	30	100	50,000
BIS(2-CHLOROISOPROPYL)ETHER	39638329	30	400	50,000
BIS(2-ETHYLHEXYL)PHTHALATE	117817	6	50,000	30
BROMODICHLOROMETHANE	75274	5	NA	50,000
BROMOFORM	75252	5	800	50,000
BROMOMETHANE	74839	10	2	50,000
CADMIUM	7440439	5	NA	10
CARBON TETRACHLORIDE	56235	5	20	50,000
CHLORDANE	57749	2	NA	2
CHLOROANILINE, p-	106478	30	NA	50,000
CHLOROBENZENE	108907	100	1,000	500
CHLOROFORM	67663	5	400	10,000
CHLOROPHENOL, 2-	95578	10	NA	40,000
CHROMIUM (TOTAL)	7440473	100	NA	2,000
CHROMIUM (III)	16065831	100	NA	2,000
CHROMIUM (VI)	18540299	50	NA	100
CHRYSENE	218019	2	NA	3,000
CYANIDE *	57125	200	NA	10
DIBENZO(a,h)ANTHRACENE	53703	0.5	NA	3,000
DIBROMOCHLOROMETHANE	124481	5	NA	50,000
DICHLOROBENZENE, 1,2- (o-DCB)	95501	600	10,000	8,000
DICHLOROBENZENE, 1,3- (m-DCB)	541731	600	10,000	8,000
DICHLOROBENZENE, 1,4- (p-DCB)	106467	5	30,000	8,000
DICHLOROBENZIDINE, 3,3'-	91941	80	NA	50,000
DDD	72548	0.1	NA	6
DDE	72559	0.1	NA	100
DDT	50293	0.3	NA	0.3
DICHLOROETHANE, 1,1-	75343	70	9,000	50,000
DICHLOROETHANE, 1,2-	107062	5	20	50,000
DICHLOROETHYLENE, 1,1-	75354	7	1	50,000
DICHLOROETHYLENE, CIS-1,2-	156592	70	30,000	50,000
DICHLOROETHYLENE, TRANS-1,2-	156605	100	20,000	50,000
DICHLOROPHENOL, 2,4-	120832	10	NA	4,000
DICHLOROPROPANE, 1,2-	78875	5	9	30,000
DICHLOROPROPENE, 1,3-	542756	0.5	5	2,000
DIELDRIN	60571	0.1	NA	0.1
DIETHYL PHTHALATE	84662	6,000	NA	30
DIMETHYL PHTHALATE	131113	50,000	NA	30

40.0974: continued

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				
		GW-1 Standard	GW-2 Standard	GW-3 Standard
Oil and/or Hazardous Material	CAS Number	µg/liter (ppb)	µg/liter (ppb)	µg/liter (ppb)
DIMETHYLPHENOL, 2,4-	105679	100	NA	20,000
DINITROPHENOL, 2,4-	51285	200	NA	2,000
DINITROTOLUENE, 2,4-	121142	30	NA	2,000
DIOXIN **	1746016	3E-05	NA	1E-04
ENDOSULFAN	115297	40	NA	0.1
ENDRIN	72208	2	NA	5
ETHYLBENZENE	100414	700	30,000	4,000
ETHYLENE DIBROMIDE	106934	0.02	3	50,000
FLUORANTHENE	206440	300	NA	200
FLUORENE	86737	300	NA	3,000
HEPTACHLOR	76448	0.4	NA	1
HEPTACHLOR EPOXIDE	1024573	0.2	NA	2
HEXACHLORO BENZENE	118741	1	NA	40
HEXACHLOROBUTADIENE	87683	0.6	1	90
HEXACHLOROCYCLOHEXANE, GAMMA	58899	0.2	NA	0.8
HEXACHLOROETHANE	67721	8	10	5,000
INDENO(1,2,3-cd)PYRENE	193395	0.5	NA	3,000
LEAD	7439921	15	NA	30
MERCURY	7439976	2	NA	1
METHOXYCHLOR	72435	40	NA	2
METHYL ETHYL KETONE	78933	350	50,000	50,000
METHYL ISOBUTYL KETONE	108101	350	50,000	50,000
METHYL MERCURY	22967926	0.7	NA	0.1
METHYL t-BUTYL ETHER	1634044	70	50,000	50,000
METHYLENE CHLORIDE	75092	5	50,000	50,000
METHYLNAPHTHALENE, 2-	91576	10	10,000	3,000
NAPHTHALENE	91203	20	6,000	6,000
NICKEL	7440020	100	NA	80
PENTACHLOROPHENOL	87865	1	NA	80
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON †	NA	200	1,000	20,000
ALIPHATIC HYDROCARBONS				
C <sub>5</sub> through C <sub>8</sub> Aliphatic Hydrocarbons		400	1,000	4,000
C <sub>9</sub> through C <sub>12</sub> Aliphatic Hydrocarbons		4,000	1,000	20,000
C <sub>9</sub> through C <sub>18</sub> Aliphatic Hydrocarbons		4,000	1,000	20,000
C <sub>19</sub> through C <sub>36</sub> Aliphatic Hydrocarbons		5,000	N/A	20,000
AROMATIC HYDROCARBONS				
C <sub>9</sub> through C <sub>10</sub> Aromatic Hydrocarbons		200	5,000	4,000
C <sub>11</sub> through C <sub>22</sub> Aromatic Hydrocarbons		200	50,000	30,000
PHENANTHRENE	85018	300	NA	50
PHENOL	108952	4,000	50,000	30,000
POLYCHLORINATED BIPHENYLS	1336363	0.5	NA	0.3
PYRENE	129000	200	NA	3,000
SELENIUM	7782492	50	NA	80
SILVER	7440224	40	NA	7
STYRENE	100425	100	900	50,000
TETRACHLOROETHANE, 1,1,1,2-	630206	5	6	50,000
TETRACHLOROETHANE, 1,1,2,2-	79345	2	20	20,000
TETRACHLOROETHYLENE	127184	5	3,000	5,000
THALLIUM	7440280	2	NA	400
TOLUENE	108883	1,000	6,000	50,000
TRICHLORO BENZENE, 1,2,4-	120821	70	10,000	500
TRICHLOROETHANE, 1,1,1-	71556	200	4,000	50,000
TRICHLOROETHANE, 1,1,2-	79005	5	20,000	50,000
TRICHLOROETHYLENE	79016	5	300	20,000
TRICHLOROPHENOL, 2,4,5-	95954	200	NA	100
TRICHLOROPHENOL, 2,4,6-	88062	10	40,000	10,000
VANADIUM	7440622	50	NA	2,000
VINYL CHLORIDE	75014	2	2	40,000
XYLENES (Mixed Isomers)	1330207	10,000	6,000	50,000
ZINC	7440666	2,000	NA	900
NA - Not Applicable				
* - Cyanide expressed as free, or physiologically available cyanide.				
** - Dioxins expressed as 2,3,7,8-TCDD equivalents.				
† - 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.				

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	S-1 SOIL & GW-2	S-1 SOIL & GW-3
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
ACENAPHTHENE	83329	20	1,000	1,000
ACENAPHTHYLENE	208968	100	100	100
ACETONE	67641	3	60	60
ALDRIN	309002	0.03	0.03	0.03
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120127	1,000	1,000	1,000
ANTIMONY	7440360	10	10	10
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440382	30	30	30
BARIUM	7440393	1,000	1,000	1,000
BENZENE	71432	10	40	40
BENZO(a)ANTHRACENE	56553	0.7	0.7	0.7
BENZO(a)PYRENE	50328	0.7	0.7	0.7
BENZO(b)FLUORANTHENE	205992	0.7	0.7	0.7
BENZO(g,h,i)PERYLENE	191242	1,000	1,000	1,000
BENZO(k)FLUORANTHENE	207089	7	7	7
BERYLLIUM	7440417	0.7	0.7	0.7
BIPHENYL, 1,1-	92524	1	1,000	100
BIS(2-CHLOROETHYL)ETHER	111444	0.7	0.7	0.7
BIS(2-CHLOROISOPROPYL)ETHER	39638329	0.7	2	2
BIS(2-ETHYLHEXYL)PHTHALATE	117817	100	200	200
BROMODICHLOROMETHANE	75274	0.1	20	20
BROMOFORM	75252	0.1	20	100
BROMOMETHANE	74839	10	3	50
CADMIUM	7440439	30	30	30
CARBON TETRACHLORIDE	56235	1	4	7
CHLORDANE	57749	1	1	1
CHLOROANILINE, p-	106478	1	100	30
CHLOROBENZENE	108907	8	80	40
CHLOROFORM	67663	0.1	10	200
CHLOROPHENOL, 2-	95578	0.7	100	20
CHROMIUM (TOTAL)	7440473	1,000	1,000	1,000
CHROMIUM (III)	16065831	1,000	1,000	1,000
CHROMIUM (VI)	18540299	200	200	200
CHRYSENE	218019	7	7	7
CYANIDE *	57125	100	100	100
DIBENZO(a,h)ANTHRACENE	53703	0.7	0.7	0.7
DIBROMOCHLOROMETHANE	124481	0.09	10	10
DICHLOROBENZENE, 1,2- (o-DCB)	95501	100	100	100
DICHLOROBENZENE, 1,3- (m-DCB)	541731	100	100	100
DICHLOROBENZENE, 1,4- (p-DCB)	106467	2	40	40
DICHLOROBENZIDINE, 3,3'-	91941	1	1	1
DDD	72548	2	2	2
DDE	72559	2	2	2
DDT	50293	2	2	2
DICHLOROETHANE, 1,1-	75343	3	100	100

40.0975: continued

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 µg/g (ppm)	S-1 SOIL & GW-2 µg/g (ppm)	S-1 SOIL & GW-3 µg/g (ppm)
DICHLOROETHANE, 1,2-	107062	0.05	0.2	10
DICHLOROETHYLENE, 1,1-	75354	0.7	0.1	2
DICHLOROETHYLENE, CIS-1,2-	156592	2	100	100
DICHLOROETHYLENE, TRANS-1,2-	156605	4	500	500
DICHLOROPHENOL, 2,4-	120832	10	40	40
DICHLOROPROPANE, 1,2-	78875	0.1	0.2	8
DICHLOROPROPENE, 1,3-	542756	0.01	0.1	3
DIELDRIN	60571	0.03	0.03	0.03
DIETHYL PHTHALATE	84662	100	1,000	0.7
DIMETHYL PHTHALATE	131113	30	1,000	0.7
DIMETHYLPHENOL, 2,4-	105679	0.7	400	10
DINITROPHENOL, 2,4-	51285	3	40	6
DINITROTOLUENE, 2,4-	121142	0.7	1	1
DIOXIN **	1746016	4E-06	4E-06	4E-06
ENDOSULFAN	115297	20	100	0.05
ENDRIN	72208	0.6	6	1
ETHYLBENZENE	100414	80	500	500
ETHYLENE DIBROMIDE	106934	0.005	0.01	0.01
FLUORANTHENE	206440	1,000	1,000	1,000
FLUORENE	86737	400	1,000	1,000
HEPTACHLOR	76448	0.1	0.1	0.1
HEPTACHLOR EPOXIDE	1024573	0.06	0.06	0.06
HEXACHLOROBENZENE	118741	0.7	0.7	0.7
HEXACHLOROBUTADIENE	87683	3	3	5
HEXACHLOROCYCLOHEXANE, GAMMA	58899	0.1	0.4	0.4
HEXACHLOROETHANE	67721	6	6	6
INDENO(1,2,3-cd)PYRENE	193395	0.7	0.7	0.7
LEAD	7439921	300	300	300
MERCURY	7439976	20	20	20
METHOXYCHLOR	72435	100	100	30
METHYL ETHYL KETONE	78933	0.3	40	40
METHYL ISOBUTYL KETONE	108101	0.5	70	70
METHYL MERCURY	22967926	2	2	2
METHYL t-BUTYL ETHER	1634044	0.3	100	100
METHYLENE CHLORIDE	75092	0.1	100	100
METHYLNAPHTHALENE, 2-	91576	4	500	500
NAPHTHALENE	91203	4	100	100
NICKEL	7440020	300	300	300
PENTACHLOROPHENOL	87865	5	7	7
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON †	NA	200	800	800
ALIPHATIC HYDROCARBONS				
C <sub>5</sub> through C <sub>8</sub> Aliphatic Hydrocarbons		100	100	100
C <sub>9</sub> through C <sub>12</sub> Aliphatic Hydrocarbons		1,000	1,000	1,000
C <sub>9</sub> through C <sub>18</sub> Aliphatic Hydrocarbons		1,000	1,000	1,000
C <sub>19</sub> through C <sub>36</sub> Aliphatic Hydrocarbons		2,500	2,500	2,500
AROMATIC HYDROCARBONS				
C <sub>9</sub> through C <sub>10</sub> Aromatic Hydrocarbons		100	100	100
C <sub>11</sub> through C <sub>22</sub> Aromatic Hydrocarbons		200	800	800
PHENANTHRENE	85018	700	1,000	100
PHENOL	108952	60	500	500
POLYCHLORINATED BIPHENYLS (PCBs)	1336363	2	2	2
PYRENE	129000	700	700	700
SELENIUM	7782492	400	400	400
SILVER	7440224	100	100	100
STYRENE	100425	2	20	20
TETRACHLOROETHANE, 1,1,1,2-	630206	0.4	0.5	4
TETRACHLOROETHANE, 1,1,2,2-	79345	0.02	0.2	0.5
TETRACHLOROETHYLENE	127184	0.5	20	20
THALLIUM	7440280	8	8	8
TOLUENE	108883	90	500	500
TRICHLOROBENZENE, 1,2,4-	120821	100	400	400
TRICHLOROETHANE, 1,1,1-	71556	30	100	100
TRICHLOROETHANE, 1,1,2-	79005	0.3	2	2
TRICHLOROETHYLENE	79016	0.4	20	70
TRICHLOROPHENOL, 2,4,5-	95954	3	1,000	2
TRICHLOROPHENOL 2,4,6-	88062	3	40	40
VANADIUM	7440622	400	400	400
VINYL CHLORIDE	75014	0.3	0.3	0.3
XYLENES (mixed isomers)	1330207	500	500	500
ZINC	7440666	2,500	2,500	2,500
<b>NOTE:</b> All concentrations of oil and/or hazardous material in soil are calculated and presented on a dry weight/dry weight basis.				
NA - Not Applicable				
* - Cyanide expressed as free, or physiologically available cyanide.				
** - Dioxins expressed as 2,3,7,8-TCDD equivalents.				
† - 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.				

40.0975: continued

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 µg/g (ppm)	S-2 SOIL & GW-2 µg/g (ppm)	S-2 SOIL & GW-3 µg/g (ppm)
ACENAPHTHENE	83329	20	2,500	2,500
ACENAPHTHYLENE	208968	100	2,500	1,000
ACETONE	67641	3	60	60
ALDRIN	309002	0.04	0.04	0.04
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120127	2,500	2,500	2,500
ANTIMONY	7440360	40	40	40
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440382	30	30	30
BARIUM	7440393	2,500	2,500	2,500
BENZENE	71432	10	60	60
BENZO(a)ANTHRACENE	56553	1	1	1
BENZO(a)PYRENE	50328	0.7	0.7	0.7
BENZO(b)FLUORANTHENE	205992	1	1	1
BENZO(g,h,i)PERYLENE	191242	2,500	2,500	2,500
BENZO(k)FLUORANTHENE	207089	10	10	10
BERYLLIUM	7440417	0.8	0.8	0.8
BIPHENYL, 1,1-	92524	1	2,500	100
BIS(2-CHLOROETHYL)ETHER	111444	0.7	0.7	0.7
BIS(2-CHLOROISOPROPYL)ETHER	39638329	0.7	3	3
BIS(2-ETHYLHEXYL)PHTHALATE	117817	100	300	300
BROMODICHLOROMETHANE	75274	0.1	20	20
BROMOFORM	75252	0.1	20	200
BROMOMETHANE	74839	10	3	200
CADMIUM	7440439	80	80	80
CARBON TETRACHLORIDE	56235	1	4	10
CHLORDANE	57749	2	2	2
CHLOROANILINE, p-	106478	1	400	30
CHLOROBENZENE	108907	8	80	40
CHLOROFORM	67663	0.1	10	200
CHLOROPHENOL, 2-	95578	0.7	200	20
CHROMIUM (TOTAL)	7440473	2,500	2,500	2,500
CHROMIUM (III)	16065831	2,500	2,500	2,500
CHROMIUM (VI)	18540299	600	600	600
CHRYSENE	218019	10	10	10
CYANIDE *	57125	100	100	100
DIBENZO(a,h)ANTHRACENE	53703	0.7	0.7	0.7
DIBROMOCHLOROMETHANE	124481	0.09	20	20
DICHLOROBENZENE, 1,2- (o-DCB)	95501	200	500	500
DICHLOROBENZENE, 1,3- (m-DCB)	541731	200	500	500
DICHLOROBENZENE, 1,4- (p-DCB)	106467	2	60	60
DICHLOROBENZIDINE, 3,3'-	91941	1	1	1
DDD	72548	3	3	3
DDE	72559	2	2	2
DDT	50293	2	2	2
DICHLOROETHANE, 1,1-	75343	3	400	500
DICHLOROETHANE, 1,2-	107062	0.05	0.2	20
DICHLOROETHYLENE, 1,1-	75354	0.7	0.1	2
DICHLOROETHYLENE, CIS-1,2-	156592	2	500	500
DICHLOROETHYLENE, TRANS-1,2-	156605	4	800	1,000
DICHLOROPHENOL, 2,4-	120832	10	90	90
DICHLOROPROPANE, 1,2-	78875	0.1	0.2	10
DICHLOROPROPENE, 1,3-	542756	0.01	0.1	5
DIELDRIN	60571	0.04	0.04	0.04
DIETHYL PHTHALATE	84662	100	2,500	0.7
DIMETHYL PHTHALATE	131113	30	2,500	0.7
DIMETHYLPHENOL, 2,4-	105679	0.7	900	10
DINITROPHENOL, 2,4-	51285	3	90	6
DINITROTOLUENE, 2,4-	121142	0.7	2	2
DIOXIN **	1746016	6E-06	6E-06	6E-06
ENDOSULFAN	115297	20	400	0.05
ENDRIN	72208	0.6	10	1
ETHYLBENZENE	100414	80	1,000	500
ETHYLENE DIBROMIDE	106934	0.005	0.02	0.02
FLUORANTHENE	206440	2,000	2,000	1,000
FLUORENE	86737	400	2,000	2,000
HEPTACHLOR	76448	0.2	0.2	0.2
HEPTACHLOR EPOXIDE	1024573	0.09	0.09	0.09
HEXACHLOROBENZENE	118741	0.8	0.8	0.8
HEXACHLOROBUTADIENE	87683	3	3	10
HEXACHLOROCYCLOHEXANE, GAMMA	58899	0.1	0.6	0.5



40.0975: continued

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 µg/g (ppm)	S-2 SOIL & GW-2 µg/g (ppm)	S-2 SOIL & GW-3 µg/g (ppm)
HEXACHLOROETHANE	67721	10	10	10
INDENO(1,2,3-cd)PYRENE	193395	1	1	1
LEAD	7439921	600	600	600
MERCURY	7439976	60	60	60
METHOXYCHLOR	72435	300	300	30
METHYL ETHYL KETONE	78933	0.3	40	40
METHYL ISOBUTYL KETONE	108101	0.5	70	70
METHYL MERCURY	22967926	6	6	6
METHYL t-BUTYL ETHER	1634044	0.3	200	200
METHYLENE CHLORIDE	75092	0.1	200	200
METHYLNAPHTHALENE, 2-	91576	4	1,000	1,000
NAPHTHALENE	91203	4	1,000	1,000
NICKEL	7440020	700	700	700
PENTACHLOROPHENOL	87865	5	10	10
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON †	NA	200	2,000	2,000
ALIPHATIC HYDROCARBONS				
C <sub>5</sub> through C <sub>8</sub> Aliphatic Hydrocarbons		500	500	500
C <sub>9</sub> through C <sub>12</sub> Aliphatic Hydrocarbons		2,500	2,500	2,500
C <sub>9</sub> through C <sub>18</sub> Aliphatic Hydrocarbons		2,500	2,500	2,500
C <sub>19</sub> through C <sub>36</sub> Aliphatic Hydrocarbons		5,000	5,000	5,000
AROMATIC HYDROCARBONS				
C <sub>9</sub> through C <sub>10</sub> Aromatic Hydrocarbons		100	5,00	500
C <sub>11</sub> through C <sub>22</sub> Aromatic Hydrocarbons		200	2,000	2,000
PHENANTHRENE	85018	700	2,500	100
PHENOL	108952	60	800	500
POLYCHLORINATED BIPHENYLS (PCBs)	1336363	2	2	2
PYRENE	129000	1,000	2,000	2,000
SELENIUM	7782492	2,500	2,500	2,500
SILVER	7440224	200	200	200
STYRENE	100425	2	20	30
TETRACHLOROETHANE, 1,1,1,2-	630206	0.4	0.5	5
TETRACHLOROETHANE, 1,1,2,2-	79345	0.02	0.2	0.6
TETRACHLOROETHYLENE	127184	0.5	30	30
THALLIUM	7440280	30	30	30
TOLUENE	108883	90	500	1,000
TRICHLORO BENZENE, 1,2,4-	120821	100	2,000	800
TRICHLOROETHANE, 1,1,1-	71556	30	500	500
TRICHLOROETHANE, 1,1,2-	79005	0.3	3	3
TRICHLOROETHYLENE	79016	0.4	20	100
TRICHLOROPHENOL, 2,4,5-	95954	3	2,500	2
TRICHLOROPHENOL 2,4,6-	88062	3	60	60
VANADIUM	7440622	2,000	2,000	2,000
VINYL CHLORIDE	75014	0.4	0.4	0.5
XYLENES (mixed isomers)	1330207	800	500	1,000
ZINC	7440666	2,500	2,500	2,500
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				
* - Cyanide expressed as free, or physiologically available cyanide.				
** - Dioxins expressed as 2,3,7,8-TCDD equivalents.				
† - 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				

40.0975: continued

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 µg/g (ppm)	S-3 SOIL & GW-2 µg/g (ppm)	S-3 SOIL & GW-3 µg/g (ppm)
ACENAPHTHENE	83329	20	5,000	4,000
ACENAPHTHYLENE	208968	100	2,500	1,000
ACETONE	67641	3	60	60
ALDRIN	309002	0.1	0.1	0.1
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120127	5,000	5,000	5,000
ANTIMONY	7440360	40	40	40
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440382	30	30	30
BARIUM	7440393	5,000	5,000	5,000
BENZENE	71432	10	100	200
BENZO(a)ANTHRACENE	56553	4	4	4
BENZO(a)PYRENE	50328	0.7	0.7	0.7
BENZO(b)FLUORANTHENE	205992	4	4	4
BENZO(g,h,i)PERYLENE	191242	2,500	2,500	2,500
BENZO(k)FLUORANTHENE	207089	40	40	40
BERYLLIUM	7440417	3	3	3
BIPHENYL, 1,1-	92524	1	3,000	100
BIS(2-CHLOROETHYL)ETHER	111444	0.7	0.7	0.7
BIS(2-CHLOROISOPROPYL)ETHER	39638329	0.7	4	9
BIS(2-ETHYLHEXYL)PHTHALATE	117817	100	1,000	500
BROMODICHLOROMETHANE	75274	0.1	90	90
BROMOFORM	75252	0.1	20	700
BROMOMETHANE	74839	10	3	700
CADMIUM	7440439	80	80	80
CARBON TETRACHLORIDE	56235	1	4	40
CHLORDANE	57749	5	5	5
CHLOROANILINE, p-	106478	1	400	30
CHLOROBENZENE	108907	8	80	40
CHLOROFORM	67663	0.1	10	300
CHLOROPHENOL, 2-	95578	0.7	1,000	20
CHROMIUM (TOTAL)	7440473	5,000	5,000	5,000
CHROMIUM (III)	16065831	5,000	5,000	5,000
CHROMIUM (VI)	18540299	1,000	1,000	1,000
CHRYSENE	218019	40	40	40
CYANIDE *	57125	400	400	400
DIBENZO(a,h)ANTHRACENE	53703	0.8	0.8	0.8
DIBROMOCHLOROMETHANE	124481	0.09	70	70
DICHLOROBENZENE, 1,2- (o-DCB)	95501	200	500	500
DICHLOROBENZENE, 1,3- (m-DCB)	541731	200	500	500
DICHLOROBENZENE, 1,4- (p-DCB)	106467	2	200	200
DICHLOROBENZIDINE, 3,3'-	91941	3	3	3
DDD	72548	10	10	10
DDE	72559	9	9	9
DDT	50293	9	9	9
DICHLOROETHANE, 1,1-	75343	3	400	500
DICHLOROETHANE, 1,2-	107062	0.05	0.2	60
DICHLOROETHYLENE, 1,1-	75354	0.7	0.1	9
DICHLOROETHYLENE, CIS-1,2-	156592	2	500	500
DICHLOROETHYLENE, TRANS-1,2-	156605	4	2,500	2,000
DICHLOROPHENOL, 2,4-	120832	10	90	90
DICHLOROPROPANE, 1,2-	78875	0.1	0.2	40
DICHLOROPROPENE, 1,3-	542756	0.01	0.1	20
DIELDRIN	60571	0.1	0.2	0.1
DIETHYL PHTHALATE	84662	100	5,000	0.7
DIMETHYL PHTHALATE	131113	30	5,000	0.7
DIMETHYLPHENOL, 2,4-	105679	0.7	4,000	10
DINITROPHENOL, 2,4-	51285	3	90	6
DINITROTOLUENE, 2,4-	121142	0.7	7	7
DIOXIN **	1746016	2E-05	2E-05	2E-05
ENDOSULFAN	115297	20	400	0.05
ENDRIN	72208	0.6	10	1
ETHYLBENZENE	100414	80	2,500	500
ETHYLENE DIBROMIDE	106934	0.005	0.04	0.07
FLUORANTHENE	206440	2,000	5,000	1,000
FLUORENE	86737	400	5,000	4,000
HEPTACHLOR	76448	0.7	0.7	0.7
HEPTACHLOR EPOXIDE	1024573	0.3	0.3	0.3
HEXACHLOROBENZENE	118741	3	3	3
HEXACHLOROBUTADIENE	87683	3	3	40
HEXACHLOROXYCLOHEXANE, GAMMA	58899	0.1	2	0.5

40.0975: continued

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	S-3 SOIL & GW-2	S-3 SOIL & GW-3
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
HEXACHLOROETHANE	67721	30	30	50
INDENO(1,2,3-cd)PYRENE	193395	4	4	4
LEAD	7439921	600	600	600
MERCURY	7439976	60	60	60
METHOXYCHLOR	72435	300	300	30
METHYL ETHYL KETONE	78933	0.3	40	40
METHYL ISOBUTYL KETONE	108101	0.5	70	70
METHYL MERCURY	22967926	8	8	8
METHYL t-BUTYL ETHER	1634044	0.3	200	200
METHYLENE CHLORIDE	75092	0.1	700	700
METHYLNAPHTHALENE, 2-	91576	4	2,000	1,000
NAPHTHALENE	91203	4	1,000	1,000
NICKEL	7440020	700	700	700
PENTACHLOROPHENOL	87865	5	40	40
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON †	NA	200	5,000	5,000
ALIPHATIC HYDROCARBONS				
C <sub>5</sub> through C <sub>8</sub> Aliphatic Hydrocarbons		500	500	500
C <sub>9</sub> through C <sub>12</sub> Aliphatic Hydrocarbons		5,000	5,000	5,000
C <sub>9</sub> through C <sub>18</sub> Aliphatic Hydrocarbons		5,000	5,000	5,000
C <sub>19</sub> through C <sub>36</sub> Aliphatic Hydrocarbons		5,000	5,000	5,000
AROMATIC HYDROCARBONS				
C <sub>9</sub> through C <sub>10</sub> Aromatic Hydrocarbons		100	500	500
C <sub>11</sub> through C <sub>22</sub> Aromatic Hydrocarbons		200	5,000	5,000
PHENANTHRENE	85018	700	2,500	100
PHENOL	108952	60	800	500
POLYCHLORINATED BIPHENYLS (PCBs)	1336363	2	2	2
PYRENE	129000	1,000	5,000	5,000
SELENIUM	7782492	2,500	2,500	2,500
SILVER	7440224	200	200	200
STYRENE	100425	2	20	100
TETRACHLOROETHANE, 1,1,1,2-	630206	0.4	0.5	20
TETRACHLOROETHANE, 1,1,2,2-	79345	0.02	0.2	2
TETRACHLOROETHYLENE	127184	0.5	100	100
THALLIUM	7440280	100	100	100
TOLUENE	108883	90	500	2,500
TRICHLOROBENZENE, 1,2,4-	120821	100	2,000	800
TRICHLOROETHANE, 1,1,1-	71556	30	500	500
TRICHLOROETHANE, 1,1,2-	79005	0.3	10	10
TRICHLOROETHYLENE	79016	0.4	20	500
TRICHLOROPHENOL, 2,4,5-	95954	3	5,000	2
TRICHLOROPHENOL 2,4,6-	88062	3	200	200
VANADIUM	7440622	2,000	2,000	2,000
VINYL CHLORIDE	75014	0.4	0.4	2
XYLENES (mixed isomers)	1330207	800	500	2,500
ZINC	7440666	5,000	5,000	5,000
<b>NOTE:</b> All concentrations of oil and/or hazardous material in soil are calculated and presented on a dry weight/dry weight basis.				
NA - Not Applicable				
* - Cyanide expressed as free, or physiologically available cyanide.				
** - Dioxins expressed as 2,3,7,8-TCDD equivalents.				
† - 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.				

NON-TEXT PAGE

40.0980: Method 2 Risk Characterization

40.0981 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).

40.0982: continued

- (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(5), 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.
- (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 LSP 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 associated with 20% of a Reference Dose shall be identified using the following equation:

40.0983: continued

$$[OHM] = (RfD \times 7,000) / RAF_{oral}$$

Where:

[OHM] =	the concentration of oil and/or hazardous material being derived, in units: µg/L (ppb)
RfD =	the U.S. EPA derived Reference Dose, in units: mg/(kg * d)
7,000 =	(0.2 * 70 kg * 1000 µg/mg)/(2 L/d)
RAF <sub>oral</sub> =	the Relative Absorption Factor applicable for oral 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:

$$[OHM] = 0.035 / (CSF * RAF_{oral})$$

Where:

[OHM] =	the concentration of oil and/or hazardous material being derived, in units: µg/L (ppb)
0.035 =	(10 <sup>-6</sup> * 70 kg * 10 <sup>3</sup> µg/mg)/(2 L/d)
CSF =	the U.S. EPA derived oral Carcinogenic Slope Factor, in units: (mg/(kg * d)) <sup>-1</sup>
RAF <sub>oral</sub> =	the Relative Absorption Factor applicable for oral exposure, dimensionless.

- (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.
- (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.

(2) GW-2 Standards shall be determined as follows:

- (a) A risk-based indoor air concentration shall be identified by choosing the lower non-zero value from the following:
1. A concentration equal to 20% of a Reference Concentration (RfC) published by the U.S. EPA, or an analogous allowable concentration is identified when sufficient information exists.
  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:

$$[OHM]_{air} = 10^{-6} \div UR_{air}$$

Where:

[OHM] <sub>air</sub> =	The calculated indoor air concentration. In units of: µg/cubic meter.
10 <sup>-6</sup> =	A one-in-one-million Excess Lifetime Cancer Risk (dimensionless)
UR <sub>air</sub> =	The Unit Risk in air for the chemical, published by the U.S. EPA. In units of: (µg/cubic meter) <sup>-1</sup>

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(2)(a). The higher of the two values shall be chosen as the target indoor air concentration.

40.0983: continued

(c) A concentration in groundwater for the oil and/or hazardous material shall be calculated using the following equation:

$$[\text{OHM}]_{\text{gw}} = [\text{OHM}]_{\text{air}} \div (\alpha * d * H * C)$$

Where:

$[\text{OHM}]_{\text{gw}}$ =	The calculated GW-2 Standard, in units of: $\mu\text{g/liter}$ (ppb).
$[\text{OHM}]_{\text{air}}$ =	The target indoor air concentration identified in 310 CMR 40.0983(2)(b). In units of $\mu\text{g/cubic meter}$ .
$\alpha$ =	An attenuation factor equal to 0.0005. Dimensionless.
$d$ =	An applied dilution factor equal to 0.1. Dimensionless.
$H$ =	The Henry's Law Constant for the chemical. Dimensionless.
$C$ =	Units Conversion Factor, 1000 $\text{l/m}^3$ .

(d) The site specific groundwater background concentration shall be identified for the oil and/or hazardous material in 310 CMR 40.0983(1) is considered;

(e) 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;

(f) the highest of the three concentrations identified in 310 CMR 40.0983(2)(c), (d) and (e) 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  $\mu\text{g/liter}$ , or ppb) identified in 310 CMR 40.0983(4)(a) shall be multiplied by a factor of ten. The resulting concentration (in  $\mu\text{g/L}$ , 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 40.0983(2) through (4) shall be adjusted to a ceiling concentration of 50,000  $\mu\text{g/liter}$  (ppb) if the calculated value is greater than 50,000  $\mu\text{g/liter}$  (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 20% of a Reference Dose shall be identified using equations specific to each soil category.



40.0984: continued

Where:	[OHM] =	the concentration of oil and/or hazardous material being derived, in units: mg/kg (ppm)
	RfD =	the chronic or subchronic U.S. EPA derived Reference Dose for the chemical, in units: mg/(kg * day)
	RAF <sub>oral</sub> =	the Relative Absorption Factor applicable for oral exposures, dimensionless
	RAF <sub>dermal</sub> =	the Relative Absorption Factor applicable for dermal exposures, dimensionless
	C =	10 <sup>6</sup> mg/kg conversion factor
	0.2 =	20% source allocation factor
	Other numerical values =	Average Daily Exposure to the soil of concern by the oral or dermal pathway. In units: mg <sub>soil</sub> /(Kg <sub>bw</sub> *day)

(a) S-1 Standards: The concentration of the oil and/or hazardous material shall be derived using the following equation:

$$[OHM] = (RfD_{chronic} \times 0.2 \times C) / ((RAF_{oral} \times 3.1) + (RAF_{dermal} \times 28.5))$$

(b) S-2 Standards: The concentration of the oil and/or hazardous material is derived using the lower result from the following equations:

$$[OHM] = (RfD_{chronic} \times 0.2 \times C) / ((RAF_{oral} \times 0.29) + (RAF_{dermal} \times 15.2))$$

(c) S-3 Standards: the concentration of the oil and/or hazardous material is derived using the following equation:

$$[OHM] = (RfD_{subchronic} \times 0.2 \times C) / ((RAF_{oral} \times 0.63) + (RAF_{dermal} \times 32.5))$$

(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 using equations specific to each soil category;

Where:	[OHM] =	the concentration of oil and/or hazardous material being derived, in units: mg/kg (ppm)
	CSF =	the U.S. EPA derived oral Carcinogenic Slope Factor, in units: (mg/(kg*day)) <sup>-1</sup>
	RAF <sub>oral</sub> =	the Relative Absorption Factor applicable for oral exposures, dimensionless
	RAF <sub>dermal</sub> =	the Relative Absorption Factor applicable for dermal exposures, dimensionless
	C =	10 <sup>6</sup> mg/kg conversion factor
	Other numerical values =	Lifetime Average Daily Exposure to the soil of concern by the oral or dermal pathway. In units: mg <sub>soil</sub> /(Kg <sub>bw</sub> *day)

(a) S-1 Standards: The concentration of the oil and/or hazardous material shall be derived using the following equation:

$$[OHM] = (1 \times 10^{-6} \times C) / (CSF \times ((RAF_{oral} \times 0.41) + (RAF_{dermal} \times 7.3)))$$

(b) S-2 Standards: the concentration of the oil and/or hazardous material shall be derived using the following equation:

$$[OHM] = (1 \times 10^{-6} \times C) / (CSF \times ((RAF_{oral} \times 0.11) + (RAF_{dermal} \times 5.48)))$$

(c) S-3 Standards: The concentration of the oil and/or hazardous material shall be derived using the following equation:

$$[OHM] = (1 \times 10^{-6} \times C) / (CSF \times ((RAF_{oral} \times 0.029) + (RAF_{dermal} \times 1.5)))$$

40.0984: continued

- (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 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 <sub>50%</sub>	=	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.

40.0985: continued

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
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
ACENAPHTHENE	83329	1,000	2,500	5,000
ACENAPHTHYLENE	208968	100	2,500	2,500
ACETONE	67641	500	1,000	2,500
ALDRIN	309002	0.03	0.04	0.1
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ANTHRACENE	120127	1,000	2,500	5,000
ANTIMONY	7440360	10	40	40
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)				
ARSENIC	7440382	30	30	30
BARIUM	7440393	1,000	2,500	5,000
BENZENE	71432	40	60	200
BENZO(a)ANTHRACENE	56553	0.7	1	4
BENZO(a)PYRENE	50328	0.7	0.7	0.7
BENZO(b)FLUORANTHENE	205992	0.7	1	4
BENZO(g,h,i)PERYLENE	191242	1,000	2,500	2,500
BENZO(k)FLUORANTHENE	207089	7	10	40
BERYLLIUM	7440417	0.7	0.8	3
BIPHENYL, 1,1-	92524	1,000	2,500	3,000
BIS(2-CHLOROETHYL)ETHER	111444	0.7	0.7	0.7
BIS(2-CHLOROISOPROPYL)ETHER	39638329	2	3	9
BIS(2-ETHYLHEXYL)PHTHALATE	117817	200	300	1,000
BROMODICHLOROMETHANE	75274	20	20	90
BROMOFORM	75252	100	200	700
BROMOMETHANE	74839	50	200	700
CADMIUM	7440439	30	80	80
CARBON TETRACHLORIDE	56235	7	10	40
CHLORDANE	57749	1	2	5
CHLOROANILINE, p-	106478	100	400	400
CHLOROBENZENE	108907	500	1,000	2,500
CHLOROFORM	67663	200	200	500
CHLOROPHENOL, 2-	95578	100	200	1,000
CHROMIUM (TOTAL)	7440473	1,000	2,500	5,000
CHROMIUM (III)	16065831	1,000	2,500	5,000
CHROMIUM (VI)	18540299	200	600	1,000
CHRYSENE	218019	7	10	40
CYANIDE *	57125	100	100	400
DIBENZO(a,h)ANTHRACENE	53703	0.7	0.7	0.8
DIBROMOCHLOROMETHANE	124481	10	20	70
DICHLOROBENZENE, 1,2- (o-DCB)	95501	100	500	500
DICHLOROBENZENE, 1,3- (m-DCB)	541731	100	500	500
DICHLOROBENZENE, 1,4- (p-DCB)	106467	40	60	200
DICHLOROBENZIDINE, 3,3'-	91941	1	1	3
DDD	72548	2	3	10
DDE	72559	2	2	9
DDT	50293	2	2	9
DICHLOROETHANE, 1,1-	75343	100	500	500
DICHLOROETHANE, 1,2-	107062	10	20	60
DICHLOROETHYLENE, 1,1-	75354	2	2	9
DICHLOROETHYLENE, CIS-1,2-	156592	100	500	500
DICHLOROETHYLENE, TRANS-1,2-	156605	500	1,000	2,500
DICHLOROPHENOL, 2,4-	120832	40	90	90
DICHLOROPROPANE, 1,2-	78875	8	10	40
DICHLOROPROPENE, 1,3-	542756	3	5	20
DIELDRIN	60571	0.03	0.04	0.2
DIETHYL PHTHALATE	84662	1,000	2,500	5,000
DIMETHYL PHTHALATE	131113	1,000	2,500	5,000
DIMETHYLPHENOL, 2,4-	105679	400	900	4,000
DINITROPHENOL, 2,4-	51285	40	90	90
DINITROTOLUENE, 2,4-	121142	1	2	7
DIOXIN **	1746016	4E-06	6E-06	2E-05
ENDOSULFAN	115297	100	400	400

40.0985: continued

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
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
ENDRIN	72208	6	10	10
ETHYLBENZENE	100414	500	1,000	2,500
ETHYLENE DIBROMIDE	106934	0.01	0.02	0.07
FLUORANTHENE	206440	1,000	2,000	5,000
FLUORENE	86737	1,000	2,000	5,000
HEPTACHLOR	76448	0.1	0.2	0.7
HEPTACHLOR EPOXIDE	1024573	0.06	0.09	0.3
HEXACHLOROBENZENE	118741	0.7	0.8	3
HEXACHLOROBUTADIENE	87683	5	10	40
HEXACHLOROCYCLOHEXANE, GAMMA	58899	0.4	0.6	2
HEXACHLOROETHANE	67721	6	10	50
INDENO(1,2,3-cd)PYRENE	193395	0.7	1	4
LEAD	7439921	300	600	600
MERCURY	7439976	20	60	60
METHOXYCHLOR	72435	100	300	300
METHYL ETHYL KETONE	78933	500	1,000	2,500
METHYL ISOBUTYL KETONE	108101	100	500	1,000
METHYL MERCURY	22967926	2	6	8
METHYL t-BUTYL ETHER	1634044	100	500	500
METHYLENE CHLORIDE	75092	100	200	700
METHYLNAPHTHALENE, 2-NAPHTHALENE	91576	500	1,000	2,000
NICKEL	91203	100	2,500	2,500
PENTACHLOROPHENOL	7440020	300	700	700
	87865	7	10	40
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON †	NA	800	2,000	5,000
ALIPHATIC HYDROCARBONS				
C <sub>5</sub> through C <sub>8</sub> Aliphatic Hydrocarbons		100	500	500
C <sub>9</sub> through C <sub>12</sub> Aliphatic Hydrocarbons		1,000	2,500	5,000
C <sub>9</sub> through C <sub>18</sub> Aliphatic Hydrocarbons		1,000	2,500	5,000
C <sub>19</sub> through C <sub>36</sub> Aliphatic Hydrocarbons		2,500	5,000	5,000
AROMATIC HYDROCARBONS				
C <sub>9</sub> through C <sub>10</sub> Aromatic Hydrocarbons		100	500	500
C <sub>11</sub> through C <sub>22</sub> Aromatic Hydrocarbons		800	2,000	5,000
PHENANTHRENE	85018	1,000	2,500	2,500
PHENOL	108952	500	1,000	2,500
POLYCHLORINATED BIPHENYLS (PCBs)	1336363	2	2	2
PYRENE	129000	700	2,000	5,000
SELENIUM	7782492	400	2,500	2,500
SILVER	7440224	100	200	200
STYRENE	100425	20	30	100
TETRACHLOROETHANE, 1,1,1,2-	630206	4	5	20
TETRACHLOROETHANE, 1,1,2,2-	79345	0.5	0.6	2
TETRACHLOROETHYLENE	127184	20	30	100
THALLIUM	7440280	8	30	100
TOLUENE	108883	500	1,000	2,500
TRICHLOROBENZENE, 1,2,4-	120821	400	1,000	1,000
TRICHLOROETHANE, 1,1,1-	71556	100	500	500
TRICHLOROETHANE, 1,1,2-	79005	2	3	10
TRICHLOROETHYLENE	79016	70	100	500
TRICHLOROPHENOL, 2,4,5-	5954	1,000	2,500	5,000
TRICHLOROPHENOL 2,4,6-	88062	40	60	200
VANADIUM	7440622	400	2,000	2,000
VINYL CHLORIDE	75014	0.3	0.5	2
XYLENES (mixed isomers)	1330207	500	1,000	2,500
ZINC	7440666	2,500	2,500	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				
* - Cyanide expressed as free, or physiologically available cyanide.				
** - Dioxins expressed as 2,3,7,8-TCDD equivalents.				
† - 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.				

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 40.0193 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) transport and fate modeling that incorporates site-specific information on source, hydrogeological, and building conditions, and which demonstrates that the oil and/or hazardous material in the soil 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 40.0193, 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 3

40.0991 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 40.0193, 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(5).

(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, which are considered applicable to all category GW-1 groundwater;

(b) Massachusetts Air Quality Standards promulgated in 310 CMR 6.00; and

(c) Massachusetts Surface Water Quality Standards promulgated in 314 CMR 4.00.



## 40.0993: continued

(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 95<sup>th</sup> 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 guidance published by the Department. Primary consideration shall be given to information developed by the U.S. Environmental Protection Agency 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.

(b) 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 exposures. Risk estimates are presumed to be additive unless an alternative mechanism is demonstrated to be appropriate.

(c) Risk calculations performed using a probabilistic analysis shall identify the cumulative cancer and non-cancer risks associated with the 95<sup>th</sup> percentile estimate of exposure.

(6) 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.

(7) 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.

(8) 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(7).

(9) 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.

40.0994: continued

- (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 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 40.0995(3)(a) and 40.0995(3)(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

40.0995: continued

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 or hazardous material, non-aqueous phase liquids, oil, tar or other solid or semi-solid 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, which include USEPA Ambient Water Quality Criteria applied pursuant to 314 CMR 4.05(5)(e).
      - c. Visible presence of oil, tar, 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.

40.0995: continued

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;
  - 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:

40.0995: continued

- 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 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 in soil and groundwater are concentrations of oil and/or hazardous material which, if exceeded under the conditions specified below, indicate the potential for significant risk of harm to public welfare and the environment under future conditions. If a condition of No Significant Risk has not been achieved for future conditions but all substantial hazards have been eliminated, then the site may be eligible for a Class C RAO described in 310 CMR 40.1050.

40.0996: continued

(2) All comparisons of soil and groundwater concentrations to Upper Concentration Limits in Soil and Groundwater required under 310 CMR 40.0000 shall be made using both:

- (a) the arithmetic average of the concentration of oil or hazardous material at a disposal site; and
- (b) the arithmetic average of the concentration of oil or hazardous material within any Hot Spot identified at the disposal site.

(3) The risk of harm to public welfare and the environment shall also be characterized by comparing the concentration(s) of oil or hazardous material in soil and groundwater to the Upper Concentration Limits in Soil and Groundwater listed in 310 CMR 40.0996(7) or identified pursuant to 310 CMR 40.0996(8).

(4) 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. 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. An engineered barrier:
  - 1. shall prevent direct contact with contaminated media;
  - 2. shall control any vapors or dust emanating from contaminated media;
  - 3. shall 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. shall be comprised of materials that are resistant to degradation;
  - 5. shall be consistent with the technical standards of RCRA Subpart N, 40 CFR 264.300, 310 CMR 30.600 or equivalent standards;
  - 6. shall include a defining layer that visually identifies the beginning of the barrier;
  - 7. shall be appropriately monitored and maintained to ensure the long-term integrity and performance of the barrier. Plans for the monitoring and maintenance of the barrier shall be submitted to the Department and shall document that one or more financial assurance mechanism(s) have been established and adequately provide for future monitoring, maintenance and any necessary replacement of the barrier; and
  - 8. 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(4).

(5) Ongoing monitoring to ensure that a condition of No Significant Risk is maintained shall be performed as necessary 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 Limits.

(6) The presence of non-aqueous phase liquids (NAPL) having a thickness equal to or greater than ½ inch in any environmental medium shall be considered a level which exceeds Upper Concentration Limits.

(7) Table 6 lists the Upper Concentration Limits in Groundwater and Soil.

(8) For any oil or hazardous material not listed at 310 CMR 40.0996(7), either a default or chemical-specific Upper Concentration Limit must be used.

- (a) The default Upper Concentration Limit in Groundwater shall be 10,000 µg/L and the default Upper Concentration Limit in Soil shall be 1,000 µg/g.
- (b) The chemical-specific Upper Concentration Limits shall be calculated using the methodology presented at 310 CMR 40.0983 and 310 CMR 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 µg/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 µg/g, whichever is lower.



40.0996: continued

310 CMR 40.0996(7)			
TABLE 6			
MCP Method 3: UPPER CONCENTRATION LIMITS (UCLs) IN GROUNDWATER AND SOIL			
Oil and/or Hazardous Material	CAS Number	UCLs IN GROUNDWATER	UCLs IN SOIL
		µg/L (ppb)	µg/g (ppm)
ACENAPHTHENE	83329	50,000	10,000
ACENAPHTHYLENE	208968	30,000	10,000
ACETONE	67641	100,000	10,000
ALDRIN	309002	100	1
ALIPHATIC HYDROCARBONS (See Petroleum Hydrocarbons)			
ANTHRACENE	120127	30,000	10,000
ANTIMONY	7440360	3,000	400
AROMATIC HYDROCARBONS (See Petroleum Hydrocarbons)			
ARSENIC	7440382	4,000	300
BARIUM	7440393	100,000	10,000
BENZENE	71432	70,000	2,000
BENZO(a)ANTHRACENE	56553	30,000	100
BENZO(a)PYRENE	50328	30,000	100
BENZO(b)FLUORANTHENE	205992	30,000	100
BENZO(g,h,i)PERYLENE	191242	30,000	10,000
BENZO(k)FLUORANTHENE	207089	30,000	400
BERYLLIUM	7440417	500	30
BIPHENYL, 1,1-	92524	100,000	10,000
BIS(2-CHLOROETHYL)ETHER	111444	100,000	7
BIS(2-CHLOROISOPROPYL)ETHER	39638329	100,000	90
BIS(2-ETHYLHEXYL)PHTHALATE	117817	100,000	10,000
BROMODICHLOROMETHANE	75274	100,000	900
BROMOFORM	75252	100,000	7,000
BROMOMETHANE	74839	100,000	7,000
CADMIUM	7440439	100	800
CARBON TETRACHLORIDE	56235	100,000	400
CHLORDANE	57749	20	50
CHLOROANILINE, p-	106478	100,000	4,000
CHLOROBENZENE	108907	10,000	10,000
CHLOROFORM	67663	100,000	5,000
CHLOROPHENOL, 2-	95578	100,000	10,000
CHROMIUM (TOTAL)	7440473	20,000	10,000
CHROMIUM (III)	16065831	20,000	10,000
CHROMIUM (VI)	18540299	1,000	10,000
CHRYSENE	218019	30,000	400
CYANIDE *	57125	2,000	4,000
DIBENZO(a,h)ANTHRACENE	53703	30,000	100
DIBROMOCHLOROMETHANE	124481	100,000	700
DICHLOROBENZENE, 1,2- (o-DCB)	95501	100,000	5,000
DICHLOROBENZENE, 1,3- (m-DCB)	541731	100,000	5,000
DICHLOROBENZENE, 1,4- (p-DCB)	106467	100,000	2,000
DICHLOROBENZIDINE, 3,3'-	91941	100,000	30
DDD	72548	60	100
DDE	72559	1,000	90
DDT	50293	3	90
DICHLOROETHANE, 1,1-	75343	100,000	5,000
DICHLOROETHANE, 1,2-	107062	100,000	600
DICHLOROETHYLENE, 1,1-	75354	100,000	90
DICHLOROETHYLENE, CIS-1,2-	156592	100,000	5,000
DICHLOROETHYLENE, TRANS-1,2-	156605	100,000	10,000
DICHLOROPHENOL, 2,4-	120832	40,000	900
DICHLOROPROPANE, 1,2-	78875	100,000	400
DICHLOROPROPENE, 1,3-	542756	20,000	200
DIELDRIN	60571	1	2
DIETHYL PHTHALATE	84662	60,000	10,000
DIMETHYL PHTHALATE	131113	100,000	10,000

40.0996: continued

310 CMR 40.0996(7)			
TABLE 6			
MCP Method 3: UPPER CONCENTRATION LIMITS (UCLs) IN GROUNDWATER AND SOIL			
Oil and/or Hazardous Material	CAS Number	UCLs IN GROUNDWATER	UCLs IN SOIL
		µg/L (ppb)	µg/g (ppm)
DIMETHYLPHENOL, 2,4-	105679	100,000	10,000
DINITROPHENOL, 2,4-	51285	20,000	900
DINITROTOLUENE, 2,4-	121142	20,000	70
DIOXIN **	1746016	1E-03	2E-04
ENDOSULFAN	115297	400	4,000
ENDRIN	72208	50	100
ETHYLBENZENE	100414	100,000	10,000
ETHYLENE DIBROMIDE	106934	100,000	0.7
FLUORANTHENE	206440	3,000	10,000
FLUORENE	86737	30,000	10,000
HEPTACHLOR	76448	10	7
HEPTACHLOR EPOXIDE	1024573	20	3
HEXACHLOROBENZENE	118741	400	30
HEXACHLOROBUTADIENE	87683	900	400
HEXACHLOROCYCLOHEXANE, GAMMA	58899	8	20
HEXACHLOROETHANE	67721	50,000	500
INDENO(1,2,3-cd)PYRENE	193395	30,000	100
LEAD	7439921	300	6,000
MERCURY	7439976	20	600
METHOXYCHLOR	72435	400	3,000
METHYL ETHYL KETONE	78933	100,000	10,000
METHYL ISOBUTYL KETONE	108101	100,000	10,000
METHYL MERCURY	22967926	7	80
METHYL t-BUTYL ETHER	1634044	100,000	5,000
METHYLENE CHLORIDE	75092	100,000	7,000
METHYLNAPHTHALENE, 2-	91576	100,000	10,000
NAPHTHALENE	91203	60,000	10,000
NICKEL	7440020	1,000	7,000
PENTACHLOROPHENOL	87865	800	400
PETROLEUM HYDROCARBONS			
TOTAL PETROLEUM HYDROCARBON †	NA	100,000	10,000
ALIPHATIC HYDROCARBONS			
C <sub>5</sub> through C <sub>8</sub> Aliphatic Hydrocarbons		100,000	5,000
C <sub>9</sub> through C <sub>12</sub> Aliphatic Hydrocarbons		100,000	20,000
C <sub>9</sub> through C <sub>18</sub> Aliphatic Hydrocarbons		100,000	20,000
C <sub>19</sub> through C <sub>36</sub> Aliphatic Hydrocarbons		100,000	20,000
AROMATIC HYDROCARBONS			
C <sub>9</sub> through C <sub>10</sub> Aromatic Hydrocarbons		100,000	5,000
C <sub>11</sub> through C <sub>22</sub> Aromatic Hydrocarbons		100,000	10,000
PHENANTHRENE	85018	3,000	10,000
PHENOL	108952	100,000	10,000
POLYCHLORINATED BIPHENYLS (PCBs) ***	1336363	5	100
PYRENE	129000	30,000	10,000
SELENIUM	7782492	800	10,000
SILVER	7440224	400	2,000
STYRENE	100425	100,000	1,000
TETRACHLOROETHANE, 1,1,1,2-	630206	100,000	200
TETRACHLOROETHANE, 1,1,2,2-	79345	100,000	20
TETRACHLOROETHYLENE	127184	50,000	1,000
THALLIUM	7440280	4,000	1,000
TOLUENE	108883	100,000	10,000
TRICHLOROBENZENE, 1,2,4-	120821	100,000	10,000
TRICHLOROETHANE, 1,1,1-	71556	100,000	5,000
TRICHLOROETHANE, 1,1,2-	79005	100,000	100
TRICHLOROETHYLENE	79016	100,000	5,000
TRICHLOROPHENOL, 2,4,5-	95954	2,000	10,000

40.0996: continued

310 CMR 40.0996(7)			
TABLE 6			
MCP Method 3: UPPER CONCENTRATION LIMITS (UCLs) IN GROUNDWATER AND SOIL			
Oil and/or Hazardous Material	CAS Number	UCLs IN GROUNDWATER	UCLs IN SOIL
		µg/L (ppb)	µg/g (ppm)
TRICHLOROPHENOL 2,4,6-	88062	100,000	2,000
VANADIUM	7440622	20,000	10,000
VINYL CHLORIDE	75014	100,000	20
XYLENES (mixed isomers)	1330207	100,000	10,000
ZINC	7440666	20,000	10,000
<b>NOTE:</b> All concentrations of oil and/or hazardous material in soil are calculated and presented on a dry weight/dry weight basis.			
NA - Not Applicable			
* - Cyanide expressed as free, or physiologically available cyanide.			
** - Dioxins expressed as 2,3,7,8-TCDD equivalents.			
*** - Federal requirements under the Toxic Substances Control Act (TSCA) and/or Federal regulatory provisions/policies may vary from the Upper Concentration Limit in soils for Polychlorinated Biphenyls.			
† - 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			

SUBPART J: RESPONSE ACTION OUTCOMES

40.1000: Response Action Outcomes

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 Response Action Outcome (RAO);
  - (b) implementing Activity and Use Limitations;
  - (c) determining the class of RAO achieved as the result of response actions taken at a site or disposal site; and
  - (d) documenting and supporting the RAO in a Response Action Outcome 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 or are required to comply with these regulations pursuant to 310 CMR 40.0600, except where a site or disposal site is adequately regulated pursuant to 310 CMR 40.0110.

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40.1003: General Provisions for Response Action Outcomes

- (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 Class A or Class B Response Action Outcome has been achieved in accordance with 310 CMR 40.1000.
- (2) RPs, PRPs and Other Persons conducting response actions at any site for which a release or threat of release of oil and/or hazardous material has been reported pursuant to 310 CMR 40.0300 shall achieve a Response Action Outcome and submit a Response Action Outcome 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.
- (3) A Response Action Outcome may be achieved and a Response Action Outcome 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 Response Action Outcome applies shall be clearly and accurately identified in the Response Action Outcome Statement. The boundaries of a disposal site or portion of a disposal site for which a Response Action Outcome applies shall be clearly and accurately delineated and provided in documentation submitted with the Response Action Outcome Statement.
- (5) A Class A or Class B Response Action Outcome shall not be achieved unless and until each source of oil and/or hazardous material which is resulting or is likely to result in an increase in concentrations of oil and/or hazardous material in an environmental medium, either as a consequence of a direct discharge or through intermedia transfer of oil and/or hazardous material, is eliminated or controlled.
  - (a) Such sources may include, without limitation:
    1. leaking storage tanks, vessels, drums and other containers;
    2. dry wells or wastewater disposal systems which are not in compliance with regulations governing discharges from those systems;
    3. contaminated fill, soil, sediment and waste deposits; and
    4. non-aqueous phase liquids.
  - (b) For the purposes of 310 CMR 40.1003(5), the downgradient leading edge of a plume of oil and/or hazardous material dissolved in and migrating with groundwater shall not, in and of itself, be considered a source of oil and/or hazardous material.

40.1004: Performance Standards for Response Action Outcomes

- (1) A Response Action Outcome 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 class of Response Action Outcome 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 Response Action Outcome

- (1) Each Class A and Class B Response Action Outcome 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.

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(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 Class A or Class B RAO is based will remain in effect. Any foreseeable period of time:

- (a) for Class A-1, A-2 or B-1 RAOs shall be an unlimited period of time;
- (b) for Class B-2 and B-3 RAOs shall be that period of time that Activity and Use Limitations will remain in effect; and
- (c) for Class A-3 and A-4 RAOs shall be that period of time that Activity and Use Limitations will remain in effect or the design life of any remedial systems necessary to maintain a condition of No Significant Risk, whichever is shorter.

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), Activity and Use Limitations shall be required:

- (a) at all disposal sites or portions of disposal sites for which a Response Action Outcome and the risk characterization pursuant to 310 CMR 40.0900 used to support the RAO 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 Response Action Outcome 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
  - 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(7);
- (b) at all disposal sites for which a Response Action Outcome relies upon Exposure Pathway elimination measures 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; and
- (c) at all sites where an existing private well(s) has been abandoned and the property(ies) served by the private water supply has been connected to a public water supply system in accordance with the provisions of 310 CMR 40.0932(5)(d).

(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 in 310 CMR 40.0996(7) is located at a depth greater than 15 feet from the ground surface;
- (c) any portion of a disposal site where residual contamination is located within a public way or within a rail right-of-way;
- (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);

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- (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 Class C Response Action Outcome have been met pursuant to 310 CMR 40.1050; and
  - (h) 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.



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(5) Activity and Use Limitations:

- (a) shall 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
- (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 and to perform additional response actions prior to any such change in Site Activities and Uses, as required by 310 CMR 40.0000.

(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 310 CMR 40.1099.

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 defined under 310 CMR 40.0006.

(2) A level of No Significant Risk shall be deemed to exist or to have been achieved at all disposal sites 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 shall be evaluated using the criteria described in 310 CMR 40.0860 in each case where one or more remedial actions have been taken to achieve a Permanent Solution, except where it can be demonstrated that the requirements of a Class A-1 Response Action Outcome have been met.

40.1030: Categories of Response Action Outcomes

(1) Response Action Outcomes are categorized under 310 CMR 40.1030 through 40.1050 as A-1, A-2, A-3, A-4, B-1, B-2, B-3, or C.

(2) The specific category of Response Action Outcome applicable to a site or 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 remedial actions have been taken to achieve a level of No Significant Risk;
- (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(7); and
- (f) whether remedial actions have achieved background, as described in 310 CMR 40.0900 and 310 CMR 40.1020.

40.1035: Class A Response Action Outcomes: Permanent Solutions

(1) Class A Response Action Outcomes shall apply to sites or disposal sites where a Permanent Solution has been achieved.

(2) A Class A Response Action Outcome shall apply where response actions have been conducted to:

- (a) achieve a level of No Significant Risk, as specified in 310 CMR 40.0900;

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- (b) eliminate or control any source of oil and/or hazardous material, as specified in 310 CMR 40.1003(5); and
  - (c) where feasible, reduce to the extent possible, the level of oil and/or hazardous material concentrations in the environment to background.
- (3) Class A Response Action Outcomes shall not apply to:
- (a) any disposal site where one or more remedial actions have not been conducted; or
  - (b) any disposal site where Active Operation and Maintenance of a remedial action is required.

40.1036: Categories of Class A Response Action Outcomes

- (1) Class A-1 Response Action Outcomes shall apply to:
- (a) disposal sites where a Permanent Solution has been achieved and the level of oil and hazardous material in the environment has been reduced to background; or
  - (b) 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) Class A-2 Response Action Outcomes shall apply to disposal sites where:
- (a) a Permanent Solution has been achieved;
  - (b) the level of oil and hazardous material in the environment has not been reduced to background; and
  - (c) one or more Activity and Use Limitations are not required to maintain a level of No Significant Risk.
- (3) Class A-3 Response Action Outcomes shall apply to disposal sites where:
- (a) a Permanent Solution has been achieved;
  - (b) the level of oil and hazardous material in the environment has not been reduced to background;
  - (c) one or more Activity and Use Limitations have been implemented pursuant to 310 CMR 40.1012 to maintain a level of No Significant Risk; and
  - (d) oil or hazardous material at the disposal site do not exceed an applicable Upper Concentration Limit in Soil or Groundwater listed at 310 CMR 40.0996(7).
- (4) Class A-4 Response Action Outcomes shall apply to disposal sites where:
- (a) a Permanent Solution has been achieved;
  - (b) the level of oil and hazardous material in the environment has not been reduced to background;
  - (c) one or more Activity and Use Limitations have been implemented pursuant to 310 CMR 40.1012 to maintain a level of No Significant Risk;
  - (d) oil and/or hazardous material in soil located at a depth greater than 15 feet from the ground surface or beneath an engineered barrier exceed one or more applicable Upper Concentration Limits in Soil listed at 310 CMR 40.0996(7); and
  - (e) an evaluation conducted pursuant to 310 CMR 40.0860 indicates that it is not feasible to reduce the concentrations of oil and 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 listed at 310 CMR 40.0996(7). For a Permanent Solution which relies upon an engineered barrier, a demonstration shall be also provided, as required by 310 CMR 40.0859(4), that the engineered barrier compares favorably to all other remedial action alternatives.
- (5) A Class A-1, A-2, A-3, or A-4 Response Action Outcome shall not apply to any disposal site where:
- (a) 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(7); or

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(b) 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.

- (6) Class A-1, A-2, A-3 and A-4 Response Action Outcomes may be achieved:
- (a) after completion of Immediate Response Actions and/or Release Abatement Measures pursuant to 310 40.0400;
  - (b) after completion of a Phase IV remedial action pursuant to 310 CMR 40.0870;
  - (c) after completion of Phase V operation, maintenance and/or monitoring pursuant to 310 CMR 40.0890; or
  - (d) after completion of Post-RAO operation, maintenance and/or monitoring pursuant to 310 CMR 40.0896.

40.1045: Class B Response Action Outcomes: No Remedial Action Required

(1) Class B Response Action Outcomes shall apply to disposal sites where it is determined as a result of assessment actions that a level of No Significant Risk exists under 310 CMR 40.0900 and, therefore, no remedial actions are necessary.

(2) A Class B Response Action Outcome shall not apply to a disposal site where one or more remedial actions have been conducted. Any action involving the containment or removal of Remediation Waste or any containment or removal actions taken to abate a threat of release shall for the purposes of 310 CMR 40.1045(2) be considered a remedial action.

40.1046: Categories of Class B Response Action Outcomes

(1) Class B-1 Response Action Outcomes shall apply to disposal sites where remedial actions have not been conducted because a level of No Significant Risk exists and no Activity and Use Limitation is necessary to ensure the existence or maintenance of a level of No Significant Risk.

- (2) Class B-2 Response Action Outcomes shall apply to disposal sites where:
- (a) remedial actions have not been conducted because a level of No Significant Risk exists, but such a level of No Significant Risk is contingent upon one or more Activity and Use Limitations that have been implemented at the disposal site pursuant to 310 CMR 40.1012 to restrict exposures to oil and/or hazardous material; and

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- (b) no concentration of oil or hazardous material at the disposal site exceeds an applicable Upper Concentration Limit in Soil or Groundwater listed at 310 CMR 40.0996(7).
- (3) Class B-3 Response Action Outcomes shall apply to disposal sites where:
  - (a) remedial actions have not been conducted because a level of No Significant Risk exists, but such level of No Significant Risk is contingent upon one or more Activity and Use Limitations that have been implemented at the disposal site pursuant to 310 CMR 40.1012 to restrict exposures to oil and/or hazardous material; and
  - (b) oil and/or hazardous material in soil located at a depth greater than 15 feet from the ground surface exceed one or more applicable Upper Concentration Limits in Soil listed at 310 CMR 40.0996(7); and
  - (c) an evaluation conducted pursuant to 310 CMR 40.0860 indicates that it is not feasible to reduce the concentrations of oil and hazardous material in soil located at a depth greater than 15 feet from the ground surface to less than or equal to applicable Upper Concentration Limits in Soil listed at 310 CMR 40.0996(7).
- (4) For the purposes of 310 CMR 40.1000 only, the filing or recording and/or registration of one or more Activity and Use Limitations shall not be deemed a remedial action.
- (5) A Class B-1, B-2 or B-3 Response Action Outcome shall not apply to any disposal site where:
  - (a) 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 where the soil is located at a depth greater than 15 feet from the ground surface 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(7); or
  - (b) 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.
- (6) Class B Response Action Outcomes may be achieved:
  - (a) after completion of Initial Assessment Activities pursuant to 310 CMR 40.0405(1);
  - (b) after completion of a Phase I Initial Site Investigation Report pursuant to 310 40.0480; or
  - (c) after completion of a Phase II Comprehensive Site Assessment pursuant to 310 40.0830;

40.1050: Class C Response Action Outcomes: Temporary Solutions

- (1) Class C Response Action Outcomes shall apply to disposal sites where a Temporary Solution has been achieved. A Temporary Solution shall ensure the elimination of any substantial hazard at the disposal site.
- (2) Class C Response Action Outcomes shall apply, without limitation, to the following types of disposal sites:
  - (a) disposal sites where Upper Concentration Limits as applicable pursuant to 310 CMR 40.0996 are exceeded in soil and/or groundwater, but all substantial hazards have been eliminated; and/or
  - (b) disposal sites where oil and/or hazardous material concentrations exceed any applicable or suitably analogous standard identified pursuant to 310 CMR 40.0993(3), but such concentrations of oil and/or hazardous material do not pose a substantial hazard.
- (3) Class C Response Action Outcomes may be achieved regardless of whether one or more remedial actions have been taken at a disposal site, but only after a Downgradient Property Status Submittal has been provided to the Department in accordance with 310 CMR 40.0180 or completion of a Phase II Comprehensive Site Assessment and a Phase III evaluation of Comprehensive Remedial Action alternatives, as specified in 310 CMR 40.0830 and 310 CMR 40.0850, respectively, have been completed.

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- (4) A Class C Response Action Outcome 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 action pursuant to 310 CMR 40.0870; or
  - (c) after Phase V operation, maintenance and/or monitoring pursuant to 310 CMR 40.0890;
- (5) For all Class C Response Action Outcomes, 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) which 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 Class C Response Action Outcome Statement; and
  - (b) a Periodic Evaluation of the Temporary Solution as described in 310 CMR 40.0580 shall be conducted not less than every fifth year after the date of filing the Class C RAO, until such time that a Class A or Class B Response Action Outcome Statement is submitted.

40.1056: Content of Response Action Outcome Statements

- (1) A Response Action Outcome 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 class of Response Action Outcome;
  - (c) for all RAOs other than RAOs where the concentrations of oil and 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, public welfare and the environment, pursuant to 310 CMR 40.0900;
  - (d) the relationship of the Response Action Outcome Statement to any other Response Action Outcome 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) where the RAO Statement applies to a Class C RAO, indication as to whether any Post-RAO Active Operation and Maintenance of the remedial action under 310 CMR 40.0896 will be conducted;
  - (f) indication as to whether the RAO is based upon the implementation of an Activity and Use Limitation, and if so, the type of Activity and Use Limitation implemented at the disposal site. In such cases, an Activity and Use Limitation Opinion accompanied by an Activity and Use Limitation Opinion form prescribed by the Department shall be appended to the RAO Statement pursuant to 310 CMR 40.1056(2)(g);
  - (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 applicable class of Response Action Outcome specified in 310 CMR 40.1000 have been met;
  - (h) a certification of the Response Action Outcome Statement and all documents submitted with the RAO Statement as required by 310 CMR 40.0009; and
  - (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.
- (2) Except where previously submitted, all documentation, plans and/or reports necessary to support the Response Action Outcome shall be submitted to the Department, 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 RAO applies. 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, and/or surveyed boundaries;

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- (b) for all Class A Response Action Outcomes and where applicable to Class C Response Action Outcomes, a demonstration that all uncontrolled sources, as specified in 310 CMR 40.1003(5) have been eliminated or controlled;
- (c) for all Class A and B Response Action Outcomes, information supporting the conclusion that a level of No Significant Risk has been achieved or exists;
- (d) for all Class C Response Action Outcomes, information supporting the conclusion that no substantial hazards remain at the disposal site;
- (e) for all Class A Response Action Outcomes, information documenting the extent to which levels of oil and/or hazardous material in the environment have been reduced to background, and for all Class A-2 and A-3 RAOs, the results of the feasibility evaluation conducted pursuant to 310 CMR 40.0860 demonstrating that the achievement of background is not feasible;
- (f) for all Class A-4 and B-3 Response Action Outcomes, 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 fifteen feet from the ground surface or in the area beneath an engineered barrier is not feasible;
- (g) a copy of any and all Activity and Use Limitations certified by the appropriate registry of deeds or land registration office which have been implemented under 310 CMR 40.1070;
- (h) where the RAO is based upon the implementation of an Activity and Use Limitation, an Activity and Use Limitation Opinion accompanied by an Activity and Use Limitation Opinion form prescribed by the Department as specified in 310 CMR 40.1071 or 310 CMR 40.1074, whichever is applicable;
- (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 RAO is based; and
- (j) for all Class C Response Action Outcomes, 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.

(3) The Response Action Outcome shall not be considered complete until the Response Action Outcome fee, if applicable, has been paid in accordance with 310 CMR 4.00.

40.1066: Effect of Response Action Outcomes on Fees

(1) Except where response actions are being conducted in accordance with the provisions of 310 CMR 40.0581(1) or 310 CMR 40.0582(1), upon receipt of a Class C Response Action Outcome 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 Post-RAO Class C Annual Compliance Assurance Fee pursuant to 310 CMR 4.03.

(2) Upon receipt of a Class A Response Action Outcome Statement filed in accordance with 310 CMR 40.1000 which indicates that Active Operation and Maintenance of a remedial action is not necessary or no longer necessary to ensure the integrity of the RAO, the Department shall suspend the further assessment of Tier I or Tier II Annual Compliance Assurance Fees, or Phase V Operation, Maintenance and/or Monitoring Annual Compliance Assurance Fees whichever is applicable; provided, however, that payment of such fees shall be required for the billable year in which the Response Action Outcome is provided to the Department.

(3) Upon receipt of a Class B Response Action Outcome 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 is applicable.

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:



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- (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.

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 or Form 1072C 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 Class A or B Response Action Outcome; or
    - b. eliminate a substantial hazard for a Class C Response Action Outcome.
  - 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 8 1/2" 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

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- 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 8 1/2" 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);
- (c) if a person(s) signing the 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 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 certified Registry copy of a Clerk's Certificate of Incumbency from the clerk of the corporation certifying that the officer(s) signing the Grant of Environmental Restriction on behalf of the corporation held his or her office as of the date of the Grant of Environmental Restriction; and
  - 2. unless the corporate officer(s) signing the Grant of Environmental Restriction holds the office of both president or vice president and treasurer or assistant treasurer, a certified Registry copy of a Clerk's Certificate from the clerk or secretary of the corporation certifying a corporate vote, resolution, or by-law granting the officer(s) authorizing the officer(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;

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(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
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 the 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 by the Commissioner and, if the property subject to the Grant is unregistered land, shall be marginally referenced on the deed into the owner of the subject property; 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;
2. a Registry copy of the required survey plan(s) referenced in the Grant of Environmental Restriction, bearing the plan book/plan number(s);
3. if the property subject to the Activity and Use Limitation is unregistered land, a Registry copy of the deed into the owner of the property, bearing the marginal reference required by 310 CMR 40.1071(3)(a).

(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:

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- (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,
  - (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 and 310 CMR 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 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 31 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.

NON-TEXT PAGE

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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 30 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.
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 60 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.

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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 45 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;
  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.

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- (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.
- (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 the Department's Rules for Adjudicatory Proceedings, 310 CMR 1.00, 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) the Notice of Activity and Use Limitation shall be prepared using Form 1075 set forth in 310 CMR 40.1099;
  - (b) an Activity and Use Limitation Opinion shall be submitted on a form prescribed by the Department to the Department with a Response Action Outcome Statement pursuant to 310 CMR 40.1056(2)(g) and shall specify:



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1. why the Notice of Activity and Use Limitation is appropriate to:
    - a. achieve and/or maintain a level of No Significant Risk for a Class A or B Response Action Outcome; or
    - b. eliminate a substantial hazard for a Class C Response Action Outcome.
  2. Site Activities and Uses which are inconsistent with maintaining a condition of No Significant Risk or eliminating a Substantial Hazard;
  3. Site Activities and Uses to be permitted; and
  4. obligations and conditions necessary to meet the objectives of the Notice of Activity and Use Limitation;
- (c) a Notice of Activity and Use Limitation shall be recorded and/or registered as specified in 310 CMR 40.1074(3);
- (d) a Notice of Activity and Use Limitation shall not be used to limit access to and/or use of groundwater for a Class A or B RAO pursuant to 310 CMR 40.1035 and 310 CMR 40.1045; and
- (e) At least 45 days 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.
- (f) 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)(e).
- (2) Contents of a Notice of Activity and Use Limitation. A Notice of Activity and Use Limitation shall contain the following information:
- (a) the location of the property, including:
    1. the property's street address;
    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 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 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 40.1071(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 8 1/2" 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, attached as an exhibit to the Notice of Activity and Use Limitation; and
    5. an 8 1/2" 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;
  - (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 of the person(s)' signatory authority as described in 310 CMR 40.1071(2)(c), attached as an exhibit to the Notice of Activity and Use Limitation;

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- (d) the disposal site name and DEP Release Tracking Number(s);
- (e) a description of the Site Activities and Uses permitted on the subject property, including but not limited to specific provisions for purposes of maintenance or repair of utilities, and specific types of land uses;
- (f) a description of any obligations and/or conditions for conducting the permitted Site Activities to meet the objectives of the Notice of Activity and Use Limitation;
- (g) a description of any Site Activities and Uses that are inconsistent with the Response Action Outcome;
- (h) 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 Activity and Use Limitation pursuant to the Response Action Outcome;
- (i) reference to procedures to be followed to ensure that changes in the permitted activities and/or uses meet the objectives of the Notice of Activity and Use Limitation; and
- (j) the notarized signature(s) of the property owner(s), and the notarized signature and seal of the LSP who signed the Activity and Use Limitation Opinion.

(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. If the property subject to the Notice of Activity and Use Limitation is unregistered land, such Notice of Activity and Use Limitation shall be marginally referenced on the deed into the owner of the subject property.

(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 certified Registry copy of the Notice bearing the book and page/instrument number and/or document number;
- (b) a Registry copy of the required survey plan(s) referenced in the Notice, bearing the plan book/plan number(s);
- (c) if the property subject to the Activity and Use Limitation is unregistered land, a Registry copy of the deed into the owner of the property, bearing the marginal reference required by 310 CMR 40.1074(3);

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.

40.1080: Changes in Land Uses/Activities Or Other Site Conditions After an RAO Has Been Filed

(1) Identification of New Conditions of Significant Risk. Where a Response Action Outcome is based upon certain restrictions, limitations and/or conditions on Site Activities and Uses, any contemplated Site Activity and Use that is not specifically permitted by an Activity and Use Limitation and that may invalidate a finding of No Significant Risk or a conclusion that no substantial hazards remain shall be evaluated by an LSP before such changes in activities or uses are implemented. Following such an evaluation:

- (a) an LSP Opinion on a form prescribed by the Department shall be provided as to whether the proposed changes in Site Activities and Uses will exceed a reporting threshold pursuant to 310 CMR 40.0300; and
- (b) any such Opinion which indicates that the objectives of the Activity and Use Limitation will no longer be met as a result of contemplated changes in site activities and/or uses, shall also specify any additional response actions necessary to maintain or achieve the objectives of the Activity and Use Limitation.

(2) Procedures for Additional Response Actions Additional response actions required to maintain a level of No Significant Risk or to eliminate a substantial hazard, for the contemplated changes in Site Activities and/or Uses shall be completed before the new or altered activities commence in accordance with the following:

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- (a) any additional response actions shall be conducted pursuant to the provisions of the Massachusetts Contingency Plan, 310 CMR 40.0000;
- (b) such response actions shall achieve a level of No Significant Risk or shall eliminate a substantial hazard, for the new/altered Site Activities and Uses contemplated for the disposal site;
- (c) any 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 and Uses identified in the LSP Opinion under 310 CMR 40.1080(1); and
- (d) a revised Response Action Outcome Statement shall be filed with DEP to reflect any changes from the previous Response Action Outcome Statement;

(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 to eliminate a 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.

40.1081: Amendment of Activity and Use Limitations

- (1) An Activity and Use Limitation shall be amended where pursuant to an 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 to eliminate a 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) A 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;
  - (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. If the property subject to the Grant of Environmental Restriction is unregistered land, the Amendment to Grant of Environmental Restriction shall also be marginally referenced on the deed into the owner of the subject property, and on the Grant of Environmental Restriction being amended;
  - (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;

40.1081: continued

2. If the property subject to the Grant of Environmental Restriction is unregistered land, registry copies of the deed into the owner of the property and of the Grant of Environmental Restriction being amended, bearing the marginal references required by 310 CMR 40.1081(3)(d).
- (4) 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/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 Notice of Activity and Use Limitation;
  - (c) at least 45 days 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 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;
  - (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. If the property subject to the Notice of Activity and Use Limitation is unregistered land, the Amendment to Notice of Activity and Use Limitation shall also be marginally referenced on the deed into the owner of the subject property, and on the Notice of Activity and Use Limitation being amended;
  - (e) a certified 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) within 30 days of recording and/or registering the Amendment to Notice of Activity and Use Limitation;
  - (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 certified 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
    3. if the property subject to the Activity and Use Limitation is unregistered land, a Registry copy of the deed into the owner of the property and of the Notice of Activity and Use Limitation being amended, bearing the marginal references required by 310 CMR 40.1081(4)(d).

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).

40.1082: continued

- (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 and Partial Release of Activity and Use Limitations

- (1) Release of Activity and Use Limitation
  - (a) 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 Activity and Use Limitation is no longer necessary to maintain a level of No Significant Risk, or to eliminate a substantial hazard, such Activity and Use Limitation shall be released as follows:
    1. an LSP Opinion shall be provided on a form prescribed by the Department which explains why the Activity and Use Limitation is no longer necessary to maintain a level of No Significant Risk or to eliminate a substantial hazard;
    2. the Activity and Use Limitation shall be released in accordance with 310 CMR 40.1083(1)(c) or 310 CMR 40.1083(1)(d), whichever is appropriate; and
    3. a revised Response Action Outcome Statement and supporting documentation pursuant to 310 CMR 40.1056 reflecting any changes in the class of response Action Outcome as the result of additional response actions and the release or termination shall be submitted to the Department.
  - (b) In cases where the termination of a Notice of Activity and Use Limitation is required pursuant to 310 CMR 40.1085, the Notice of Activity and Use Limitation shall be terminated in accordance with 310 CMR 40.1083(1)(d). No LSP Opinion shall be required to terminate the Notice of Activity and Use Limitation, provided that the provisions of 310 CMR 40.1085 are satisfied.
  - (c) A Grant of Environmental Restriction shall be released in accordance with the following procedures:
    1. a Release of Grant of Environmental Restriction shall be prepared using Form 1084A set forth in 310 CMR 40.1099 and submitted to the Department for the Commissioner's signature, accompanied by the LSP Opinion described in 310 CMR 40.1083(1)(a) and the appropriate fee as established in 310 CMR 4.00;
    2. 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. If the property subject to the Grant of Environmental Restriction is unregistered land, the Release of Grant of Environmental Restriction shall be marginally referenced on the deed into the owner of the subject property, and on the Grant of Environmental Restriction being released;
    3. local officials and the public shall be informed of the Release of Grant of Environmental Restriction pursuant to 310 CMR 40.1403(7); and
    4. within 30 days of recording and/or registering any Release of Grant of Environmental Restriction, the property owner shall submit to the Department:

40.1083: continued

- a. a certified Registry copy of the Release of Grant of Environmental Restriction bearing the book and page/instrument number and/or document number;
  - b. if the property subject to the Grant of Environmental Restriction is unregistered land, a Registry copy of the deed into the owner of the property and the Grant of Environmental Restriction being released, bearing the marginal references required by 310 CMR 40.1083(1)(c)2.
- (d) A Notice of Activity and Use Limitation shall be terminated in accordance with the following procedures:
  - 1. a Termination of Notice of Activity and Use Limitation shall be prepared using the appropriate form set forth in 310 CMR 40.1099;
  - 2. if a person(s) signing the Termination of 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 of the person(s) signatory authority, as described in 310 CMR 40.1071(2)(c), shall be submitted as an exhibit to the Termination of Notice of Activity and Use Limitation;
  - 3. 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. If the property subject to the Activity and Use Limitation is unregistered land, the Termination of Notice of Activity and Use Limitation shall be marginally referenced on the deed into the owner of the subject property, and on the Notice of Activity and Use Limitation being terminated;
  - 4. 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)(d)(3);
  - 5. 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); and
  - 6. 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. 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;
    - b. if the property subject to the Activity and Use Limitation is unregistered land, a Registry copy of the deed into the owner of the property and the Notice of Activity and Use Limitation being terminated, bearing the marginal references required by 310 CMR 40.1083(1)(d)3.

(2) Partial Release of 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) an LSP Opinion shall be provided on a form prescribed by the Department which explains why the Grant of Environmental Restriction is no longer necessary to maintain a level of No Significant Risk or to eliminate a substantial hazard at the portion of the property;
- (b) a Partial Release of Grant of Environmental Restriction shall be prepared using Form 1083A set forth in 310 CMR 40.1099 and submitted to the Department for the Commissioner's signature, accompanied by the LSP Opinion described in 310 CMR 40.1083(2)(a) and the appropriate fee established in 310 CMR 4.00;
- (c) 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:
  - 1. (registered land only) an 8 1/2" 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

40.1083: continued

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.
- (d) 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. If the property subject to the Grant of Environmental Restriction is unregistered land, the Partial Release of Grant of Environmental Restriction shall also be marginally referenced on the deed into the owner of the subject property and on the Grant of Environmental Restriction being partially released;
- (e) local officials and the public shall be informed of the Partial Release of Grant of Environmental Restriction pursuant to 310 CMR 40.1403(7);
- (f) a revised Response Action Outcome Statement and supporting documentation pursuant to 310 CMR 40.1056 reflecting any changes in the class of Response Action Outcome as the result of additional response actions and the Partial Release of Grant of Environmental Restriction shall be submitted to the Department; and
- (g) 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;
  2. if the property subject to the Grant of Environmental Restriction is unregistered land, a Registry copy of the deed into the owner of the property and of the Grant of Environmental Restriction being partially released bearing the marginal references required by 310 CMR 40.1083(2)(d); 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).

(3) 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 to eliminate a 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) an LSP Opinion shall be provided on a form prescribed by the Department which explains why the Notice of Activity and Use Limitation is no longer necessary to maintain a level of No Significant Risk or to eliminate a substantial hazard at the portion of the property;
- (b) a Partial Termination of Notice of Activity and Use Limitation shall be prepared using Form 1083B set forth at 310 CMR 40.1099;
- (c) if a person(s) signing the Partial Termination of 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 of the person(s) signatory authority, as described in 310 CMR 40.1071(2)(c), shall be submitted as an exhibit to the Partial Termination of Notice of Activity and Use Limitation;
- (d) 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 8 1/2" 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

- (e) 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. If the property subject to the Notice of Activity and Use Limitation is unregistered land, the Partial Termination of Notice of Activity and Use Limitation shall also be marginally referenced on the deed into the owner of the subject property and on the Notice of Activity and Use Limitation being partially terminated;
- (f) 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);
- (g) 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); and
- (h) a revised Response Action Outcome Statement and supporting documentation pursuant to 310 CMR 40.1056 reflecting any changes in the class of Response Action Outcome as the result of additional response actions and the Partial Termination of Notice of Activity and Use Limitation shall be submitted to the Department;
- (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 certified 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 deed into the owner of the property and of the Notice of Activity and Use Limitation being partially terminated bearing the marginal references required by 310 CMR 40.1083(3)(e); 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.

40.1084: continued

(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.

(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), scriveners' 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. 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 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 40.1071(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, and shall be marginally referenced on the deed into the owner of the subject property and on the Activity and Use Limitation being corrected;
- (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);
- (e) local officials and the public shall be informed of the Confirmatory Activity and Use Limitation pursuant to 310 CMR 40.1403(7);
- (f) no later than 30 days after the recording of the Confirmatory Activity and Use Limitation, the following shall be submitted to the Department:
  - 1. a certified Registry copy of the Confirmatory Activity and Use Limitation;
  - 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); and

40.1085: continued

3. a Registry copy of the deed into the owner of the property and of the Activity and Use Limitation being corrected bearing the marginal references required by 310 CMR 40.1085(4)(c).

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 Response Action Outcome 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).

(2) If the disposal site for which a Response Action Outcome 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 1072C: Grant of Environmental Restriction for Closed Private Drinking Water Well(s)

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 Environmental Restriction

Form 1084B: Termination of Notice of Activity and Use Limitation (pursuant to 310 CMR 40.4083(1)(a))

Form 1084C: Termination of Notice of Activity and Use Limitation (pursuant to 310 CMR 40.1083(1)(b))

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 \_\_\_\_\_, 19\_\_\_\_, 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 \_\_\_\_\_ County 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 \_\_\_\_\_ County 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 \_\_\_\_\_ County 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)(k)

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, as amended.
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 \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_

\_\_\_\_\_

[Name of Grantor]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19\_\_\_\_

Then personally appeared the above-named \_\_\_\_\_ and acknowledged the foregoing instrument to be [his] [her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

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 \_\_\_\_\_, 19\_\_

Then personally appeared the above-named \_\_\_\_\_ and acknowledged the foregoing instrument to be [his] [her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

In accordance with M.G.L. c. 21E, § 6, as amended, and the Massachusetts Contingency Plan (310 CMR 40.0000) as amended, 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  
\_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_, Page \_\_\_\_\_ and/or registered with the Land  
Registration Office of \_\_\_\_\_ County 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 \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_, Page \_\_\_\_\_, and/or registered  
with the Land Registration Office of \_\_\_\_\_ County 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 \_\_\_\_\_, 19\_\_\_\_\_.

\_\_\_\_\_  
Holder

COMMONWEALTH OF MASSACHUSETTS

\_\_\_\_\_, ss \_\_\_\_\_, 19\_\_\_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing  
instrument to be his/her free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

[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 1072C

GRANT OF ENVIRONMENTAL RESTRICTION  
FOR CLOSED PRIVATE DRINKING WATER WELL(S)  
M.G.L. c. 21E, § 6 and 310 CMR 40.0000

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 \_\_\_\_\_ County 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 \_\_\_\_\_ County Registry District];

WHEREAS, said parcel(s) of land is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property"). This parcel(s) is shown on[ a plan recorded in the \_\_\_\_\_ County Registry of Deeds in Plan Book \_\_\_\_\_, Plan \_\_\_\_\_], and/or on [Land Court Plan No. \_\_\_\_\_];

WHEREAS, there is a disposal site within 500 feet of the Property at which there has been a release of oil and/or hazardous material. Said disposal site has DEP Site Name \_\_\_\_\_ and DEP Release Tracking No.(s) \_\_\_\_\_, and is located in \_\_\_\_\_ (Town/City), \_\_\_\_\_ County, Massachusetts. Said disposal site is more particularly bounded and described in Exhibit B, attached hereto and made a part hereof ("Disposal Site");

WHEREAS, the Property is not part of the Disposal Site;

WHEREAS, there is located within the Property a private drinking water supply well;

WHEREAS, a response action has been selected for the [Disposal Site][Portion of the Disposal Site] pursuant to 310 CMR 40.0932(5)(d), as set forth in the Activity and Use Limitation Opinion ("AUL Opinion") dated \_\_\_\_\_, which is attached hereto as Exhibit C and made a part hereof. Said response action requires the following:

- (i) the connection of the Property to a public drinking water supply system;
- (ii) the abandonment of the private drinking water supply well(s) located within the Property; and
- (iii) the implementation of a Grant of Environmental Restriction in accordance with 310 CMR 40.1070, prohibiting use of the Property's private drinking water supply and installation of new private drinking water supplies within the Property;

WHEREAS, the Property is connected to a public drinking water supply system as is confirmed in the attached AUL Opinion;

WHEREAS, the private drinking water supply well(s) located within the Property is closed and abandoned in accordance with applicable well closure regulations as is confirmed in the attached AUL Opinion (Exhibit C); and

WHEREAS, no unpermitted cross-connection exists between the private drinking water supply well(s) located within the Property and the public drinking water supply system as is confirmed in the attached AUL Opinion;

NOW, THEREFORE, in accordance with the provisions of M.G.L. c. 21E, § 6 and 310 CMR 40.0000, I, \_\_\_\_\_, of \_\_\_\_\_ (Town/City), \_\_\_\_\_ County, \_\_\_\_\_ (State) ("Grantor"), do 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.

Form 1072C: continued

Said Restriction is subject to the following terms and conditions:

1. Restricted Activities. Grantor shall not perform, suffer, allow or cause any person to perform any of the following activities in, on, through, over or under the Property;

- (i) use of the Property's private drinking water supply;
- (ii) installation of new private drinking water supplies within the Property; and
- (iii) removal of the sealant used in closing the private drinking water supply well(s) located within the Property;

2. Permitted Activities. Grantor expressly reserves the right to perform, suffer, allow or cause any person to perform any activities in, on, through, over or under the Property other than those certain activities restricted under Paragraph 1, including, but not limited to:

- [ (i) use of the Property's private water supply well for irrigation purposes;]
- [ (ii) use of the Property's private water supply well for industrial or commercial purposes; and]
- [(iii) ].

3. Obligations and Conditions. Grantor affirmatively agrees to maintain the private drinking water supply well located within the Property in its closed and abandoned condition;

4. Easements. In establishing this Restriction, Grantor hereby grants the following easements for the term of this Restriction to DEP, its agents, contractors, subcontractors and employees:

- (i) an easement to pass and repass over the Property for purposes of inspecting the Property to insure compliance with and fulfillment of the terms of this Grant; and
- (ii) an easement in, on, through, over and under the Property for purposes of conducting inspections and subsurface investigations in order to confirm compliance with the terms of this Restriction;

5. Severability. Grantor hereby agrees, in the event that a court or other tribunal determined that any provision of this instrument is invalid or unenforceable that:

- (i) Any such provision shall be deemed automatically modified to conform to the requirements for validity and enforceability as determined by such court or tribunal; and/or
- (ii) 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.

6. Enforcement. Grantor expressly acknowledges that a violation of the terms of this instrument could result in the following:

- (i) in the assessment of penalties and other action by DEP to enforce the terms of this Restriction, pursuant to M.G.L. c. 21E and 310 CMR 40.0000; and
- (ii) upon a determination by a court of competent jurisdiction, in the issuance of criminal and/or civil penalties, and/or equitable remedies (including but not limited to the issuance of an order to cease and desist from any activity performed in violation of the terms of the Restriction and/or an order to remove any improvements constructed on or within the Property in violation of the terms of the Restriction.

Form 1072C: continued

7. Provisions to Run With the Land. This Restriction creates rights, liabilities, agreements and obligations which shall run with the Property or any portion thereof. The rights hereby granted to DEP, its successors and assigns, constitute the perpetual right of DEP to enforce this Restriction and 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, or any portion thereof, subject to this Restriction, provided, however, that a violation of this Restriction shall not result in a forfeiture or reversion of Grantor's title to the Property.
8. Concurrence Presumed. It being agreed that Grantor and all parties claiming by, through or under Grantor shall be deemed to be in accord with the provisions herein set forth and to agree for and among themselves and any party claiming by, through or under them, and their respective agents, contractors, sub-contractors and employees, that the Restriction herein established shall be adhered to and not violated and that their respective interests in the Property, or an portion thereof, shall be subject to the provisions herein set forth.
9. 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, or any portion thereof, is conveyed.
10. Amendment and Release. This Restriction may be amended or released in accordance with M.G.L. c. 21E and the MCP.
11. No Dedication Intended. Nothing herein shall be construed to be a gift or dedication of the Property to DEP or to the general public for any purpose whatsoever.
12. Term. This Restriction shall run in perpetuity [for a period of \_\_\_\_ years] and is intended to conform to M.G.L. c. 184, § 26.
13. Rights Reserved. It is expressly agreed that acceptance of this Restriction by DEP shall not express or imply DEP approval of the adequacy of this or any response action affecting the (select one) [Disposal Site] [Portion of the Disposal Site]. Nor shall acceptance of this Restriction operate to bar, diminish, or 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 Disposal Site] or in any way affect any other claim, action, suit, cause of action, or demand which DEP may have with respect thereto.

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 \_\_\_\_\_, 19 \_\_\_\_.

\_\_\_\_\_  
[Name of Grantor]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_\_\_

Form 1072C: continued

Then personally appeared the above-named \_\_\_\_\_ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

The undersigned Waste Site Cleanup Professional hereby certifies that [he][she] executed the AUL Opinion, dated \_\_\_\_, and filed with Department of Environmental Protection under Release Tracking No(s). \_\_\_\_, 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 ]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19\_\_

Then personally appeared the above-named \_\_\_\_\_ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

In accordance with M.G.L. c. 21E, § 6, as amended, and the Massachusetts Contingency Plan, 310 CMR 40.0000, as amended, 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 1075[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 \_\_\_\_\_, 19\_\_\_\_, 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 \_\_\_\_\_ County 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 \_\_\_\_\_ County 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 \_\_\_\_\_ 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 [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 \_\_\_\_\_ County 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 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]. 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, notice is hereby given that the activity and use limitations set forth in said AUL Opinion are as follows:

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that (select one) [a condition of No Significant Risk to health, safety, public welfare or the environment exists for any foreseeable period of time] [no substantial hazards remain] (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the [Property][Portion of the Property]:

(i) \_\_\_\_\_ ;

(ii) \_\_\_\_\_ ;

Form 1075: continued

(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 2 as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the [Property] [Portion of the Property], may result in a significant risk of harm to health, safety, public welfare or the environment or in a substantial hazard, are as follows:

(i) ;

(ii) ; and

(iii) .

3. Obligations and Conditions Set Forth in the AUL Opinion. If applicable, obligations and/or conditions to be undertaken and/or maintained at the [Property] [Portion of the Property] to (select one) [maintain a condition of No Significant Risk] [eliminate a substantial hazard] as set forth in the AUL Opinion shall include the following:

(i) ;

(ii) ; and

(iii) .

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 an LSP who shall render an Opinion, in accordance with 310 CMR 40.1080 *et seq.*, as to whether the proposed changes will (select one) [present a significant risk of harm to health, safety, public welfare or the environment] [will invalidate the conclusion that no substantial hazards remain]. 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 Response Action Outcome. 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 an LSP in accordance with 310 CMR 40.1080 *et seq.*, and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or to eliminate substantial hazards.

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 an LSP in accordance with 310 CMR 40.1080 *et seq.*, 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.



Form 1075: continued

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 LSP, 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 \_\_\_\_\_ County 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 \_\_\_\_\_, 19\_\_\_\_\_.

\_\_\_\_\_  
[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19\_\_\_\_

Then personally appeared the above-named \_\_\_\_\_ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

The undersigned LSP hereby certifies that [he][she] executed the aforesaid Activity and Use Limitation Opinion attached hereto as Exhibit C and made a part hereof and that in [his][her] Opinion this [Confirmatory] Notice of Activity and Use Limitation is consistent with the terms set forth in said Activity and Use Limitation Opinion.

Date: \_\_\_\_\_

\_\_\_\_\_  
[Name of LSP]  
[LSP SEAL ]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19\_\_\_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

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 \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_, Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County Registry District as Document No. \_\_\_\_\_; [Said Grant was previously amended by an Amendment to Grant of Environmental Restriction dated \_\_\_\_\_, recorded with the \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_ Page \_\_\_\_\_ and/or registered with the Land Registration Office of the \_\_\_\_\_ County 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 \_\_\_\_\_ County 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 \_\_\_\_\_ County 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 \_\_\_\_\_, 19 \_\_\_\_.

\_\_\_\_\_  
[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_\_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

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 ]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_\_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

Form 1082A: continued

In accordance with Massachusetts General Laws Chapter 21E, Section 6, as amended, and the Massachusetts Contingency Plan, 310 CMR 40.0000, as amended, 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 \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_ Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County 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 \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_ Page \_\_\_\_\_ and/or registered with the Land Registration Office of the \_\_\_\_\_ County 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 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 Massachusetts General Laws Chapter 21A, Sections 19-19J (the holder being referred to as "LSP") attached to the Notice of Activity and Use Limitation 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 \_\_\_\_\_, and filed with DEP at its \_\_\_\_\_ Regional Office under Release Tracking No.(s). \_\_\_\_\_, attached hereto as Exhibit B and made a part hereof. Said AUL Opinion explains that the implementation of the following proposed changes in Site Activities and Uses at the Property will (select one)[maintain a condition of No Significant Risk][eliminate a substantial hazard];

and

[WHEREAS, the undersigned LSP, in accordance with M.G.L. c. 21E and the MCP, has issued and signed an AUL Opinion, dated \_\_\_\_\_, filed with DEP at its \_\_\_\_\_ Regional Office under Release Tracking No.(s) \_\_\_\_\_, and attached hereto as Exhibit B and made a part hereof. Said AUL Opinion explains that the implementation of the following proposed changes in Site Activities and Uses at the Property will (select one) [maintain a condition of No Significant Risk] [eliminate a substantial hazard] at the Property, and that no additional response actions are necessary;]

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 \_\_\_\_\_ County 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 \_\_\_\_\_ County Registry District], hereby amends said Notice as follows:

(Select as appropriate)

[Paragraph 1, "Activities and Uses Inconsistent with the AUL Opinion", is amended to read as follows:]

[Paragraph 2, "Permitted Uses and Activities Set Forth in the AUL Opinion", is amended to read as follows:]

Form 1082B: continued

[Paragraph 3, "Obligations and Conditions Set Forth in the AUL Opinion", is amended to read as follows:]

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 LSP and recorded and/or registered with the appropriate Registry of Deeds and/or Land Registration Office.

[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 \_\_\_\_\_ County 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 \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

The undersigned LSP hereby certifies that [he][she] executed the AUL Opinion dated \_\_\_\_\_, filed with DEP at its \_\_\_\_\_ Regional Office under Release Tracking No.(s)\_\_\_\_\_, attached hereto as Exhibit B and made a part hereof, and that, in [his][her] Opinion, this [Confirmatory] [First] Amendment to Notice of Activity and Use Limitation is consistent therewith.

Date: \_\_\_\_\_

\_\_\_\_\_  
[Name of LSP]  
[ LSP SEAL ]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

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 \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_, Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County Registry District as Document No. \_\_\_\_\_; [as amended by an Amendment to Grant of Environmental Restriction dated \_\_\_\_\_, recorded with the \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_, Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County 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 \_\_\_\_\_ County 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.

1083AForm : continued

WITNESS the execution hereof under seal this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
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 \_\_\_\_\_, 19 \_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his]/[her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

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 \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_ Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County Registry District as Document No. \_\_\_\_\_ [as amended by an Amendment to Notice of Activity and Use Limitation dated \_\_\_\_\_, recorded with the \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_ Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County 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 limitations are consistent 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 Notice of Activity and Use Limitation 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] (said conditions and terms being defined in 310 CMR 40.0000); and

WHEREAS, the undersigned, \_\_\_\_\_, being an LSP, has issued an AUL Opinion in accordance with the MCP, dated \_\_\_\_\_, a copy of which is attached hereto as Exhibit B and made a part hereof. Said AUL Opinion states 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 to health, safety, public welfare or the environment] [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 \_\_\_\_\_ County 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;

NOW, THEREFORE, as 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, the undersigned, \_\_\_\_\_, of \_\_\_\_\_ (Town/City), \_\_\_\_\_ County, \_\_\_\_\_ (State), being the owner of said Property hereby terminates said Notice as to said Portion of the Property.

[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 \_\_\_\_\_ County 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.

Form 1083B: continued

( 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 LSP 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 LSP 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 \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his]/[her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

[The undersigned LSP hereby certifies that [he]/[she] executed the AUL Opinion dated \_\_\_\_\_, filed with DEP at its \_\_\_\_\_ Regional Office under Release Tracking No.(s)\_\_\_\_\_, attached hereto as Exhibit B and made a part hereof, and that this [Confirmatory] Partial Termination of Notice of Activity and Use Limitation is consistent with said AUL Opinion.

Date: \_\_\_\_\_

\_\_\_\_\_  
[Name of LSP]  
[ LSP SEAL ]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his]/[her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:]

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 \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_, Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County Registry District as Document No. \_\_\_\_\_; [as amended by an Amendment to Grant of Environmental Restriction dated \_\_\_\_\_, recorded with the \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_, Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County 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 \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
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 \_\_\_\_\_, 19 \_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

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))

Disposal Site Name: \_\_\_\_\_  
DEP Release Tracking No.(s) \_\_\_\_\_

WHEREAS, a Notice of Activity and Use Limitation has been recorded with the \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_ Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County Registry District as Document No. \_\_\_\_\_ [as amended by Amendment to a Notice of Activity and Use Limitation dated \_\_\_\_\_, recorded with the \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_ Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County 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 limitations are consistent 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 Notice of Activity and Use Limitation 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] (said conditions and terms being defined in 310 CMR 40.0000); and

WHEREAS, the undersigned, \_\_\_\_\_, being an LSP, has issued an AUL Opinion in accordance with the MCP, dated \_\_\_\_\_, a copy of which is attached hereto as Exhibit B and made a part hereof. Said AUL Opinion states 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 to health, safety, public welfare or the environment] [eliminate a substantial hazard] at the Property, and accordingly, said Notice may be terminated;

NOW, THEREFORE, as 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, the undersigned, \_\_\_\_\_, of \_\_\_\_\_ (Town/City), \_\_\_\_\_ County, \_\_\_\_\_ (State), being the owner of said Property, hereby terminates 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 \_\_\_\_\_ County 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 LSP and recorded with the appropriate Registry of Deeds.]

Form 1084B: 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 executed under seal by the undersigned LSP 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 \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

The undersigned LSP hereby certifies that [he]/[she] executed the AUL Opinion dated \_\_\_\_\_, filed with DEP at its \_\_\_\_\_ Regional Office under Release Tracking No.(s)\_\_\_\_\_, attached hereto as Exhibit B and made a part hereof, and that this [Confirmatory] Termination of Notice of Activity and Use Limitation is consistent with said AUL Opinion.

Date: \_\_\_\_\_

\_\_\_\_\_  
[Name of LSP]  
[ LSP SEAL ]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his][her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

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))

Disposal Site Name: \_\_\_\_\_

DEP Release Tracking No.(s) \_\_\_\_\_

WHEREAS, a Notice of Activity and Use Limitation has been recorded with the \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_ Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County Registry District as Document No. \_\_\_\_\_ [as amended by Amendment to a Notice of Activity and Use Limitation dated \_\_\_\_\_, recorded with the \_\_\_\_\_ County Registry of Deeds in Book \_\_\_\_\_ Page \_\_\_\_\_, and/or registered with the Land Registration Office of the \_\_\_\_\_ County 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 limitations are consistent 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 Notice of Activity and Use Limitation 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] (said conditions and terms being defined in 310 CMR 40.0000); and

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 \_\_\_\_\_ (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 \_\_\_\_\_ County 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 \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
[Name of Owner]

[COMMONWEALTH OF MASSACHUSETTS]  
[STATE OF \_\_\_\_\_]

\_\_\_\_\_, ss \_\_\_\_\_, 19 \_\_

Then personally appeared the above named \_\_\_\_\_ and acknowledged the foregoing to be [his]/[her] free act and deed before me,

\_\_\_\_\_  
Notary Public:  
My Commission Expires:

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 310 CMR 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, 310 CMR 40.000 and any other requirement applicable to such response actions.
- (2) During each fiscal year, the Department shall audit at least 20% of all sites 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 310 CMR 40.1110(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 Class A or Class B Response Action Outcome Statement; or
  - (b) an LSP Evaluation Opinion stating that the requirements for a Class A or B Response Action Outcome 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), 310 CMR 40.1110(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 Class A or Class B Response Action Outcome 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; or
  - (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 Response Action Outcome Statement has been submitted to the Department; or
  - (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; or
  - (d) the Response Action Outcome Statement has failed to identify material facts, data, or other information known by the LSP who rendered the Response Action Outcome Statement or by the person who undertook response actions at a site; or
  - (e) the person responsible for undertaking response actions at a site has failed to fully respond to a Request for Information; or
  - (f) the activities, uses and/or exposures upon which a Response Action Outcome 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; or
  - (g) any person required by 310 CMR 40.0014 to retain documents pertinent to the Response

Action Outcome Statement has failed to do so; or

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; or
- (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;
- (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 Response Action Outcome 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 310 CMR 40.1110(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 a site inspection and/or 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.

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 40.1200 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 310 CMR 40.1249, cited collectively herein 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 herein 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, 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 310 CMR 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. 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 one percent per month, or 12% per year, commencing forty five 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.

(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 herein 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 to the following persons a notice of such intent:

(1) 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;

(2) any other person 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;

(3) any person 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; and

40.1251: continued

- (4) any person 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 a person having a property interest in the property 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 property interest in the property in order to avoid being deemed to have waived his or her right to an 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 ownership 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 40.1254, 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; and/or
- (3) any person having an unrecorded or unregistered property interest in the property.



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 the Department's Rules for Adjudicatory Proceedings, 310 CMR 1.00, within 21 days of the following:

- (a) with respect to the notice required by 310 CMR 40.1251(1), (2) or (3), 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(4), 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, 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 40.1254.

(3) If, in the statement filed pursuant to 310 CMR 40.1254, 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 310 CMR 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 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) The regulations published at 310 CMR 40.1300 do not apply to response actions selected prior to the effective date of 310 CMR 40.1300 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) The regulations published at 310 CMR 40.1300 describe 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 this Contingency Plan, 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 publication thereof in the Environmental Monitor;
- (c) by certified mail, return receipt requested, to any person who the Department reasonably believes:
  - a. is an RP or a PRP; or
  - b. 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;
- (d) 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
- (e) 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), (d), and (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 310 CMR 40.1303(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 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.
  - (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 GRANTS

40.1400: 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 this Contingency Plan.

(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 this Contingency Plan.

(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) The Department may make technical assistance grants available to applicants who meet the requirements of 310 CMR 40.1453 for the following disposal sites:

- (a) any disposal site classified pursuant to 310 CMR 40.0500 or 40.0600;
- (b) any site that is listed on the National Priority List pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 *et seq.*; and
- (c) any site that is deemed to be Adequately Regulated pursuant to 310 CMR 40.0110.

(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 notified of:

(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.

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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;
  - (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. Notification shall be made at least seven days prior to the implementation of the Release Abatement Measure Plan;
  - (e) the availability of the Phase I Initial Site Investigation Report required pursuant to 310 CMR 40.0480, and all subsequent Phase Reports required pursuant to 310 CMR 40.0800. Notification may take the form of copies of correspondence which contain or summarize decisions regarding the Report, or a notice of the availability of the Report, and shall include information about how local officials may obtain a copy of the Report;
  - (f) the availability of any Response Action Outcome 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; and
  - (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.
- (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, the following actions shall be taken to inform the public about the status of the disposal site's classification:
- (a) within seven days of filing a Tier Classification Submittal, a legal notice which indicates the classification or reclassification of the disposal site shall be published in a form established by the Department for such purpose, in a newspaper which circulates in the community(ies) in which the disposal site is located and in newspapers which circulate in any other communities which are, or are likely to be, affected by the disposal site;



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(b) at least three days prior to publication of the legal notice, a copy of the notice shall be sent to the Chief Municipal Officer and the 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. If the Department does not publish the legal notice, then a copy of the legal notice which includes the date of publication and the name of the newspaper, and a copy of the cover letter to the Chief Municipal Officer and Board of Health, shall be submitted to the Department within seven days of publication of the legal notice; and

(c) for Tier I disposal sites, the notifications required by 310 CMR 40.1403( 6) may be included with the notifications required by 310 CMR 40.0703(8), provided that an Initial Permit Application or Major Permit Modification is filed concurrently with the Tier Classification Submittal. A separate legal notice of a classification or reclassification determination made as part of a determination concerning an Initial Tier I Permit or a Major Permit Modification is not required if the legal notice requirement of 310 CMR 40.0703(8) has been met.

(7) Within thirty 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:

(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 legal notice which indicates the recording and/or registering of the original, amended, released or terminated Activity and Use Limitation shall be published in a newspaper which 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 legal notice shall be submitted to the Department within seven days of its publication.

(8) For any disposal site where the Response Action Outcome relies on the exemption provided by 310 CMR 40.1012(3)(c) from requirements for an Activity and Use Limitation, a copy of the Response Action Outcome 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 Response Action Outcome Statement shall also be filed with the Executive Office of Transportation and Construction; 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 Response Action Outcome Statements pursuant to 310 CMR 40.1403(3)(f).

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(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 in any Immediate Response Action pursuant to 310 CMR 40.0410 or Release Abatement Measure pursuant to 310 CMR 40.0440.

(a) requests concerning Immediate Response Actions shall be submitted to the Department. The Department may itself or may require the party conducting the response action to:

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. The Department shall determine the appropriate timeframe for such opportunities, considering the need for timely implementation of response actions; and
4. prepare a summary of all public comments received, noting which comments have been incorporated, and providing an explanation of why others have not.

(b) requests concerning Release Abatement Measures shall be submitted to the party conducting the response action. Such party shall:

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 comment during a period of time that shall be no shorter than ten calendar days; and
4. prepare a summary of all public comments received, noting which comments have been incorporated, and providing an explanation of why others have not.

(c) any public meeting held to respond to a request for public involvement shall be held at a time and place convenient to the people requesting the opportunity for comment, and shall be publicized in such community in advance of the meeting.

(d) public comments regarding the Immediate Response Action or Release Abatement Measure shall:

1. be considered and, where relevant and material to the response action, incorporated into plans for the appropriate response actions;
2. be provided to DEP if a required approval has yet to be issued or a presumptive approval deadline has not expired.

(e) the public involvement opportunities provided pursuant to this section shall not unreasonably delay implementation of response actions at the disposal site.

#### 40.1404: Public Involvement Plan Site Designation

(1) Any disposal site that has been classified as either Tier I or Tier II pursuant to 310 CMR 40.0500 shall be eligible for designation as a Public Involvement Plan (PIP) site.

(2) Petitions shall be submitted to the party responsible for conducting the response action at the disposal site. For disposal sites where a RP, PRP or Other Person is conducting the response action, a copy of the petition shall also be sent concurrently to the Department.

(3) 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

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(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.

(4) Upon receipt of a petition signed by ten or more residents of a municipality in which a Tier I or Tier II disposal site is located, or of a municipality potentially affected by a Tier I or Tier II disposal site, the party responsible for conducting the response action shall designate such site as a PIP site.

(5) All petitioners shall be informed in writing whether or not the disposal site has been designated as a PIP site, within 20 days of receipt of such a petition. If the site is not a classified disposal site and therefore cannot be designated a PIP site, the reason why it has not shall be stated in the response letter. If the Department is not conducting the response action at the disposal site, a copy of the response letter shall be concurrently sent to the Department.

(6) While petitions to designate a disposal site as a PIP site shall be accepted for any disposal site classified as Tier I or Tier II, the submission of such a petition by itself shall not alter the classification of a disposal site made pursuant to 310 CMR 40.0500.

(7) The submittal of a public involvement petition shall not alter the order in which the Department initiates response actions at a disposal site.

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 the response action, 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 classification. At disposal sites where response actions beyond Phase I are conducted prior to classification, Public Involvement Activities shall pertain to all response actions conducted, provided that the PIP petition is submitted within 20 days of publication of the legal notice required in 310 CMR 40.1403(6).

(5) Upon designation of a disposal site as a PIP site:

(a) within 60 days of designation as a PIP 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. at least 14 days prior to the meeting a legal notice shall be published in a form established by the Department for such purpose, and a press release shall be issued to a newspaper which circulates in the community(ies) in which the disposal site is located and in newspapers which circulate in any other communities which are, or are likely to be, affected by the disposal site; and

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2. a copy of the legal notice announcing the public meeting shall be mailed to each petitioner, and the Chief Municipal Officer and Board of Health in the community(ies) in which disposal site is located and in any other communities which are, or are likely to be, affected by the disposal site;
  - (b) the draft Public Involvement Plan shall be made available for public comment for a minimum of 20 days following the public meeting to present it;
  - (c) the Public Involvement Plan shall be finalized within 30 days of the close of the public comment period to reflect public comments received on the draft Public Involvement Plan. A summary of comments received on the draft Public Involvement Plan shall be developed, noting comments that have been incorporated and providing an explanation for why others have not. 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 40.1405(6)(i);
  - (d) if the Department is not conducting the response action at the disposal site, then a copy of the draft Public Involvement Plan, legal notice and press release announcing the public meeting, all comments received on the draft Public Involvement Plan, response to comments, and the final Public Involvement Plan shall be submitted to the Department upon their publication; and
  - (e) the Public Involvement Plan shall be implemented throughout the response action.
- (6) A Public Involvement Plan shall ensure, without limitation that:
- (a) local concerns and sources of information are identified so that the Public Involvement Plan reflects the nature and level of public interest;
  - (b) methods for informing the public about the response action and public involvement processes are provided, including, but not limited to, sufficient notice about specific milestones during the response action;
  - (c) a contact for the person conducting the response action is provided, including that person's name, address and phone number;
  - (d) disposal site background information is provided, including, but not limited to, a site description and history, material environmental assessment history, and relevant public involvement history;
  - (e) opportunities to comment on the response action are provided by holding a minimum 20 day comment period on all submittals required pursuant to 310 CMR 40.0400 and 40.0800, 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. Phase II Scopes of Work shall be subject to additional comment periods if significant changes are proposed which substantially alter or expand the Scope of Work;
    3. comment periods on Immediate Response Action Plans may be reduced or eliminated by the Department if it would delay the timely implementation of the remedial action;
    4. comment periods on Release Abatement Measures to be performed after Tier Classification shall be ten days, and comments shall be simultaneously submitted to the Department if the Department is not conducting the response action; and
    5. comment periods for reports concerning inspection and monitoring of remedial actions and status reports are not required unless specifically requested by the public in the process of developing or revising a Public Involvement Plan.
  - (f) public comments regarding the disposal site are considered, and where relevant and material to the response action, incorporated into decisions regarding response actions;
  - (g) a summary is prepared of all public comments received during any comment period, and that summary contains the comments received, noting which comments have been incorporated and providing an explanation of why others have not;
  - (h) Public Involvement Activities are undertaken throughout the response action and that a schedule is developed for conducting these activities;
  - (i) an information repository is established 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;

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- (j) a mailing list of individuals who ask to receive information about the disposal site is established; and
- (k) procedures are established for revising the Public Involvement Plan whenever appropriate during the response action (*e.g.*, based on changes in the level of public interest in the disposal site, changes in the nature of response actions, or other factors).

40.1406: Compliance with the Massachusetts Environmental Policy Act

To comply with the requirements of the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.26(7)(g)2. and 3.:

- (1) Notices shall be submitted for publication in the Environmental Monitor for all Tier I disposal sites. The notice shall announce the proposed classification or reclassification of any disposal site as Tier IA, Tier IB, or Tier IC pursuant to 310 CMR 40.0510. The notices shall be submitted to the Environmental Monitor prior to filing the applicable Tier I Permit Application with the Department, and a copy of such notice shall be included in the Permit Application.
- (2) Additional notices shall be submitted for publication in the Environmental Monitor for all Tier IA and IB disposal sites. The notices shall announce the availability of the Phase III Remedial Action Plan as described in 310 CMR 40.0850, the Phase IV Remedial Implementation Plan (RIP) as described in 310 CMR 40.0870, and any Opinion(s) concerning the impacts of changes in Site Activities and Uses in accordance with 310 CMR 40.1080(1)(b).
  - (a) At Tier IA sites, the notice shall be submitted to the Environmental Monitor within seven days of the Department's approval of the applicable Phase Report or Opinion, and concurrently copied to the Department.
  - (b) At Tier IB sites, the notice shall be submitted to the Environmental Monitor within seven days of filing an LSP Opinion that the Report conforms with the applicable requirements of the Phase for which it was prepared, and concurrently copied to the Department, or an Opinion filed in accordance with 40.1080(1)(b).
- (3) Each notice shall indicate how the document may be reviewed and shall describe the opportunities for public involvement in the response action. All notices submitted for publication in the Environmental Monitor shall be in a form prescribed by the Department.

(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.

40.1452: continued

- (4) Grant Amounts.
  - (a) At the start of each funding round, the Department shall designate a maximum amount for any single grant.
  - (b) The Department, in its sole discretion, may grant additional funds for applications in consideration of the following criteria and other information available to the Department:
    1. the application covers more than two related disposal sites (*e.g.*, the disposal sites are contiguous, have comingled contamination, or have a common party conducting response actions), or a disposal site that includes more than two properties;
    2. the application covers a single disposal site that has affected more than two municipalities; and/or
    3. the application covers a single disposal site that has affected more than two environmental media.
  - (c) The maximum grant amount(s) and requirements for applying for additional funds shall be set forth in the notice to be published by the Department pursuant to 310 CMR 40.1455.
- (5) 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.
- (6) 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.
- (7) No Technical Assistance Grant Agreement shall be made available to a Grantee for any site for which:
  - (a) a Class A or B Response Action Outcome Statement has been approved by the Department for a Tier IA disposal site;
  - (b) a Class A or B Response Action Outcome Statement has been submitted to the Department by the party(ies) conducting response actions at a Tier IB, Tier IC, Tier II site; or
  - (c) 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.
- (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:

40.1454: continued

- (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 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 40.1068.
- (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 legal 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.
- (2) Applications received after the close of the application period shall not be considered for a grant in that funding round.

40.1456: continued

(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) Each applicant shall submit a Letter of Intent to Apply for a Technical Assistance Grant, which shall include, but not be limited to, the following information:

- (a) a description of the applicant, including but not limited to:
  - 1. name of applicant;
  - 2. name(s) and telephone number(s) of the individual(s) who shall act as the contact person(s) for the applicant;
  - 3. identification of the disposal site(s);
  - 4. a description of any affiliation of applicant members with RPs, PRPs or Other Persons known to the applicant; and
  - 5. a description of how persons applying are affected by the disposal site(s).
- (b) a brief description of the proposed project, including but not limited to:
  - 1. overall goals and issues to be addressed, activities to be conducted, products to be produced, and a projected schedule;
  - 2. nature of the technical assistance to be obtained, including a description of the types of experts to be hired to provide technical assistance; and
  - 3. a description of the means by which the results or products of the applicant's project will be disseminated and an identification of the audience which is to receive such information.

(5) Within each funding round, the Department shall designate a date by which all Letters of Intent to Apply for a Technical Assistance Grant shall be submitted to the Department. Within a reasonable time after this date, the Department shall publish a list of all such Letters of Intent received for the funding round. The Department shall publish the list of Letters of Intent received in the Environmental Monitor, and shall also mail the list to every contact person for each applicant whose name appears on the List. The List of Letters of Intent Received shall also state that affected persons interested in participating in any technical assistance grant proposal or project identified on the list may contact the applicant(s) applying for the grant, and may submit comments on the applications to the Department.

(6) Any applicant applying for a grant shall submit a Technical Assistance Grant Application Form which shall include the following 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;
- (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; and
- (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; and
- (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) if the applicant has ever received a technical assistance grant or grants pursuant to this Contingency Plan, a description of:
  - 1. 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; and
  - 2. the amount of any unexpended funds from previous grant(s) and the activities for which those grant funds are to be spent;



40.1456: continued

(l) if the applicant seeks TAG funding in addition to the base grant amount [pursuant to 310 CMR 40.1452(4)], a description of additional activities to be performed and a budget and schedule for such activities; and

(m) if the total cost of the applicant's project exceeds the designated grant maximum referred to in 310 CMR 40.1452(4)(a), an identification of the amount and the sources of any and all additional funding which has been or may be secured by the applicant when the grant would be awarded, and the activities that will or would be supported by such funding.

(7) Within each funding round, the Department shall designate a date by which all Applications shall be submitted to the Department. An applicant shall not submit a Technical Assistant Grant Application unless it has already submitted a Letter of Intent to Apply for a Technical Assistance Grant in the same funding round.

(8) The Department shall review of each Letter of Intent to Apply for a Technical Assistance Grant and Application to determine the completeness of the information and the eligibility of the applicant. Upon completion of its review of each Application, the Department shall determine whether the Application is complete, and whether the applicant is eligible pursuant to 310 CMR 40.1453, and shall notify the applicant of its determination in writing. In the case of an incomplete Application or ineligible applicant, the Department shall set forth the reasons for such determination, and shall specify a date by which additional documentation shall be submitted to the Department. The Department may then determine that the Application is complete. Only Applications determined by the Department to be complete may be considered for a grant.

40.1457: Grant Selection Process

(1) Grant Applications which have been determined by the Department to be complete shall be evaluated according to the criteria listed below. In conducting such evaluations, each application shall be assigned points for each of the criteria in 310 CMR 40.1457(3).

(2) Any application which receives a score of zero for the criteria set forth in 310 CMR 40.1457 (3)(b) or 40.1457(3)(e). shall be ineligible for funding.

(3) Evaluation Criteria.

(a) Severity and complexity of the disposal site, relative to its impact on health, safety, public welfare and the environment (Maximum score -- 12 points).

(b) Relationship of proposed project to the impacts of the disposal site on health, safety, public welfare, and the environment (Maximum score -- 6 points).

(c) Relevance of the disposal site for local economic development efforts, as determined by the disposal site's location in an area designated by the Massachusetts Economic Assistance Coordinating Council as an "Economic Target Area" pursuant to MGL c. 23A, §§ 3A-3F (Maximum score -- 3 points)

(d) Potential of proposed project to foster increased public awareness of disposal site response actions and issues, and increased public participation in response actions at the disposal site (Maximum score -- 12 points)

(e) Applicant's demonstrated capacity to communicate with and involve individuals affected by the disposal site (Maximum score -- 5 points).

(f) Applicant's demonstrated capacity to implement the proposed project (Maximum score -- 5 points).

(g) Overall quality of applicant's proposal, including feasibility of meeting identified goals, feasibility of completing project within work schedule and budget, and appropriateness of proposed types of consultants to be employed (Maximum score -- 18 points).

(4) In each funding round, the Department shall rank the applications determined to be complete according to the total point value assigned for the criteria set forth in 310 CMR 40.1457(3). This ranking shall be used by the Department to establish a grant funding priority list which shall indicate which grants are likely to be funded during that funding round. In the event that the Department must choose between two applications having the same point value, the Department shall select the application having the earliest date of submission of the Letter

40.1457: continued

of Intent to Apply for A Technical Assistance Grant. 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.

(5) Upon final determination of the Department's grant funding priority list, the Department shall publish the list in the Environmental Monitor and shall mail a copy to the contact person for each applicant group which has applied for a grant for that funding round.

(6) Following publication of the Department's funding priority list, a written explanation of each applicant's scoring shall be made available for public review.

(7) 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.

(8) 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.

(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).

40.1460: continued

- (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 this Contingency Plan, 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 this section 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.

SUBPART O: THE NUMERICAL RANKING SYSTEM AND SCORING INSTRUCTIONS

40.1500: The Numerical Ranking System and Scoring Instructions

The regulations published at 310 CMR 40.1501 through 40.1599, cited collectively as 310 CMR 40.1500, contain the requirements and procedures for using the Numerical Ranking System to score disposal sites for purposes of Tier Classification under 310 CMR 40.0500.

40.1501: Purpose and Scope

310 CMR 40.1500 provides instructions for using the Numerical Ranking System and completing the Numerical Ranking System scoresheet.

40.1502: Applicability

310 CMR 40.1500 applies to any person undertaking Tier Classification pursuant to 310 CMR 40.0500.

40.1503: General Instructions

- (1) Any person performing Tier Classification shall score the disposal site being classified in accordance with 310 CMR 40.1500.
- (2) An LSP shall be engaged or employed for purposes of rendering an LSP Tier Classification Opinion regarding the NRS scoring of a disposal site. In rendering such Opinion, the LSP shall consider the data, facts and other information known about a disposal site, including, but not limited to, the data, facts and other information obtained during Phase I and, if applicable, during Phase II.
- (3) The Response Action Performance Standard (RAPS) shall be used when scoring a disposal site using the Numerical Ranking System.
- (4) All information used to develop an NRS score shall be documented in the applicable Phase Report(s) required by 310 CMR 40.0480 and/or 40.0800.
- (5) The NRS score for a disposal site is the sum of the separate scores developed for Sections II., III., IV., V. and VI. of the NRS Scoresheet. The score for each Section is the sum of the separate scores developed for the Subsections of each Section. Section VI. may be completed when allowed pursuant to 310 CMR 40.1509.
- (6) Risk Reduction. In the event that Immediate Response Actions or Release Abatement Measures are completed at the disposal site prior to scoring pursuant to 310 CMR 40.1500, the oil and/or hazardous material, concentrations, and Exposure Pathways present after such action(s) shall serve as the basis for the NRS score for such disposal site. All such risk reduction measures shall be fully documented in the applicable Phase Report(s).
- (7) The NRS Scoresheet requires units of measurement in micrograms per liter (: g/l) for groundwater and surface water concentrations and in micrograms per gram (: g/g) dry weight for soil concentrations.
- (8) Distances between the disposal site and identified resources shall be measured from any place where oil and/or hazardous material from the disposal site has come to be located to the boundary of the identified resource.
- (9) When manually completing an NRS scoresheet, all sections shall be completed in black ink. The applicable values or scores in the scoresheet shall be circled. When completing a scoresheet electronically, all sections shall clearly indicate the applicable values or scores.

40.1504: NRS Section I. - Disposal Site Information

- (1) The DEP Release Tracking Number(s), Name and Address, and the location of the disposal site using Universal Transverse Mercator (UTM) coordinates shall be provided so that the disposal site being classified is properly identified.
- (2) It shall be indicated where provided in Section I. whether the disposal site is categorically classified as Tier I pursuant to 310 CMR 40.0520(2)(a).
- (3) The name, license number, firm name and telephone number of the LSP rendering an Opinion regarding the NRS Scoresheet shall be provided and the LSP shall sign, seal and date the completed NRS Scoresheet.

40.1505: NRS Section II. - Exposure Pathways

- (1) Section II. scores potential Exposure Pathways for four media: soil; groundwater; surface water; and air. Based upon the exposure criteria provided in 310 CMR 40.1512, the potential Exposure Pathways for each media shall be characterized according to the following designations: None or Not Applicable; Evidence of Contamination; Potential Exposure Pathway; and, Likely or Confirmed Exposure Pathway. Technical Justification pursuant to 310 CMR 40.0193 shall be provided in a Phase I Report or other supporting documentation when a designation of None or Not Applicable is provided for any media.
- (2) NRS scores for Section II. shall be derived by applying the criteria found in 310 CMR 40.1512 as follows:
  - (a) 310 CMR 40.1512(1) shall be applied to establish the score for Soil Exposures for Subsection II.A.; and
  - (b) 310 CMR 40.1512(2) shall be applied to establish the score for Groundwater Exposures for Subsection II.B.; and
  - (c) 310 CMR 40.1512(3) shall be applied to establish the score for Surface Water Exposures for Subsection II.C.; and:
    1. Freshwater chronic Ambient Water Quality Criteria (AWQC) concentrations, if established, shall be used for evaluating impacts:
      - a. to a freshwater environment, and
      - b. to a marine environment if no marine AWQC has been established; or
    2. Marine chronic AWQC concentrations, if established, shall be used for evaluating impacts:
      - a. to a marine environment, and
      - b. to a freshwater environment if no freshwater AWQC has been established; or
    3. When no chronic AWQC concentrations have been established, acute AWQC concentrations shall be used for evaluating impacts; or
    4. When no AWQC exist for an oil or hazardous material, the AWQC of a comparable compound shall be used; and
  - (d) 310 CMR 40.1512(4) shall be applied to establish the score for Air Exposures for Subsection II.D.
- (3) The rationale used for scoring subsections II.A. through II.D. in Table II.(A. - D.) shall be provided including specific page references to the Phase I and/or other applicable Phase Reports.
- (4) OHM (oil and hazardous materials) Sources, Subsection II.E., shall be assigned a score of:
  - (a) zero if the disposal site contains one source of oil or hazardous material; or
  - (b) 25 if the disposal site includes two sources of oil or hazardous material; or
  - (c) 50 if the disposal site includes three or more sources of oil or hazardous material.
- (5) The total Section II. score shall be developed by adding the sum of the scores from Subsections II.A., II.B., II.C., II.D., and II.E.
- (6) It shall be indicated in Section II., where provided, if Section VI. is used to amend the Section II. score.

40.1506: NRS Section III.: Disposal Site Characteristics

(1) Section III. evaluates the disposal site on the basis of: the type(s) of oil and hazardous materials released to the environment and the human health-based toxicity of such oil and hazardous materials in relation to the concentrations of such oil and hazardous materials in the environment; the mobility and persistence of such oil and hazardous materials; and, disposal site hydrogeology.

(a) The highest toxicity score selected shall be assigned for Subsection III.A., OHM (oil and hazardous materials) Toxicity Score. An OHM Toxicity Score shall be selected for each oil or hazardous material identified at the disposal site in soils, including sediments, and in surface water and groundwater, where the soil, groundwater or surface water media received an unamended score greater than zero in 310 CMR 40.1512. OHM Toxicity Scores are not required to be developed for concentrations of oil and hazardous materials detected in the air. One of the following methods shall be used in selecting the OHM Toxicity Score:

1. The OHM Toxicity Score shall be selected from Table III.A. of 310 CMR 40.1511, based on the concentration of the oil or hazardous material in soil or water; or
2. The OHM Human Health-Based Toxicity Value shall be selected from 310 CMR 40.1513(2), and the corresponding Toxicity Score shall be selected from 310 CMR 40.1511 Worksheet III.A.1, based on the concentration of the oil or hazardous material in soil or water; or
3. For oil or hazardous materials not listed in Table III.A. of 310 CMR 40.1511 or 310 CMR 40.1513(2), a Toxicity Value shall be derived from the criteria contained in 310 CMR 40.1513(3)(a) or (b), and the corresponding Toxicity Score shall be selected from 310 CMR 40.1511 Worksheet III.A.1, based on the concentration of the oil or hazardous materials in soil or water; or
4. If new toxicity data not included in 310 CMR 40.1513(2) for a particular oil or hazardous material become available from the U.S. Environmental Protection Agency after the effective date of 310 CMR 40.0000, the Toxicity Score shall be selected in accordance with 310 CMR 40.1506(1)(a)3., and such new data shall be documented in an addendum to the NRS Scoresheet.

(b) In 310 CMR 40.1511 Subsection III.A., of the Numerical Ranking System Scoresheet the following shall be clearly identified: the highest OHM Toxicity Score selected and assigned in accordance with 310 CMR 40.1506(1)(a); the corresponding substance name; the OHM Toxicity Value, if required pursuant to 310 CMR 40.1506; and the concentration in soil or water.

(c) Multiple OHMs, Subsection III.B., shall be assigned a score of 30 points if more than one oil or hazardous material identified at the disposal site has an OHM Toxicity Score established pursuant to 310 CMR 40.1506(1)(a) to be greater than or equal to 30.

(d) OHM Mobility and Persistence

1. The Score for Subsection III.C., OHM Mobility and Persistence, is the highest of the individual OHM Mobility and Persistence Scores of all oil or hazardous materials for which such scores are developed.
2. OHM Mobility and Persistence scores shall be developed for the following oil or hazardous materials identified in 310 CMR 40.1506(1)(a):
  - a. for any oil or hazardous materials assigned an OHM Toxicity Score greater than or equal to 20; or
  - b. if no oil or hazardous material has been assigned an OHM Toxicity Score greater than or equal to 20 but at least one has been assigned a score greater than or equal to ten, for any oil or hazardous material assigned an OHM Toxicity Score greater than or equal to ten; or
  - c. if no oil or hazardous material has been assigned an OHM Toxicity Score greater than or equal to ten, for any oil or hazardous materials scored in Subsection III.A.
3. An oil or hazardous material shall be assigned an OHM Mobility and Persistence Score using one of the following methods:

40.1506: continued

- a. the method as set forth in tables 310 CMR 40.1514(2) or 310 CMR 40.1514(3) if such oil or hazardous material appears in those tables; or
  - b. the method as developed by using the factors and ranges provided in 310 CMR 40.1514(4); when such method is used, the OHM Mobility and Persistence Score shall be documented in an addendum to the NRS.
- (e) The Disposal Site Hydrogeology Score shall be indicated in Table III.D. of 310 CMR 30.1511. This score shall be based on ranges of depths to groundwater and soil permeability specified in this section as follows:
  - 1. The highest identified seasonal groundwater level shall be used for the depth to groundwater; and
  - 2. The disposal site's soil permeability shall be identified using the criteria set forth in 310 CMR 40.1515.
- (2) The Section III. score shall be the total of the scores assigned for Subsections III.A., III.B., III.C., and III.D.
- (3) It shall be indicated in Section III. where provided if Section VI. is used to amend the Section III. score.

40.1507: NRS Section IV. - Human Population and Land Uses

- (1) Section IV. evaluates the potential risks posed by the disposal site to public health and welfare based on nearby populations and land and water uses.
  - (a) The score for Human Population, Subsection IV.A., is the sum of the scores for Residential Population Within ½ Mile, Institutions Within 500 feet and On-site Workers.
    - 1. Residential Population Within ½ Mile of the disposal site shall be assigned a score of:
      - a. zero, if no residences are located in such area; or
      - b. five, if less than 100 people live within such area; or
      - c. ten, if 100 or more but less than 1000 people live within such area; or
      - d. 15, if 1000 or more people live within such area.
    - 2. Institutions within 500 feet of the disposal site shall be assigned a score of ten.
    - 3. The presence of On-Site Workers at the property or properties comprising the disposal site shall be assigned a score of:
      - a. zero, if there are no On-Site Workers; or
      - b. five, if there are one or more but less than 100 On-Site Workers; or
      - c. ten, if there are 100 or more but less than 1,000 On-Site Workers; or
      - d. 15, if there are 1,000 or more On-Site Workers.
  - (b) The score for Aquifers, Subsection IV.B., is the sum of the scores for Sole Source Aquifer and Potentially Productive Aquifer.
    - 1. The location of a disposal site in relation to an area designated as a Sole Source Aquifer shall be assigned a score of:
      - a. zero if no portion of the disposal site is located in such a Sole Source Aquifer; or
      - b. 25 if any portion of the disposal site is located in such a Sole Source Aquifer.
    - 2. The location of a disposal site in relation to an area designated by the Department to be a medium or high yield Potentially Productive Aquifer shall be assigned a score of:
      - a. zero if no portion of the disposal site is located in such a Potentially Productive Aquifer; or
      - b. 15 if any portion of the disposal site is located in such a Potentially Productive Aquifer.
  - (c) The Score for Water Use, Subsection IV.C., is the sum of the scores for the Proximity of the Disposal Site to Public Drinking Water Supply Sources, Persons Served by the Public Drinking Water Supply, Private Water Supplies Within 500 Feet, and Alternative Public Water Supply Availability.



40.1507: continued

1. Proximity of Disposal Site to Public Drinking Water Supply Source shall be assigned a score of:
  - a. zero, if no portion of the disposal site is located within a Zone A, a Zone II, an IWPA, or 400 feet of a surface drinking water intake; or
  - b. 20, if any portion of the disposal site is located within a Zone A of a public drinking water supply; or
  - c. 50, if any portion of the disposal site is located within a Zone II, an IWPA, or 400 feet of a surface drinking water intake.
2. Persons Served by Public Drinking Water Supply shall be assigned a score of:
  - a. zero, if no portion of the disposal site is located within a Zone II, an IWPA, or 400 feet of a surface drinking water intake; or
  - b. if any portion of the disposal site is located within a Zone II, an IWPA, or 400 feet of a surface drinking water intake, the disposal site shall be assigned a score of:
    - i. five if the corresponding drinking water supply services less than 1,000 persons; or
    - ii. ten, if the corresponding drinking water supply services 1,000 or more persons but less than 5,000 persons; or
    - iii. 20, if the corresponding drinking water supply services 5,000 or more persons but less than 50,000 persons; or
    - iv. 25, if the corresponding drinking water supply services 50,000 or more persons.
3. Private Water Supplies Within 500 Feet shall be assigned a score of:
  - a. zero, if there are no private water supplies located within 500 feet of any portion of the disposal site; or
  - b. if there are private water supplies within 500 feet of any portion of the disposal site, the disposal site shall be assigned a score of:
    - i. ten if those supplies are only used for commercial or industrial purposes not involving food processing or ingestion; or
    - ii. 15 if those supplies are only used for agricultural or residential purposes where human contact with the water is possible, but where the water is not ingested; or
    - iii. 25 if those supplies are used for drinking water, food processing or otherwise ingested by humans.
4. Alternative Public Water Supply Available shall be assigned a score of:
  - a. zero, if 310 CMR 40.1507(c)4.b. does not apply; or
  - b. 25, if the city or town the disposal site is located in has no public water supply system, or if the city or town the disposal site is located in is served by a public water supply and:
    - i. the system connections are located greater than 500 feet from the disposal site; or,
    - ii. if oil or hazardous materials from the disposal site have been detected in the public water supply; or
    - iii. if any private water supply wells are located within 500 feet of any portion of the disposal site and such wells are located greater than 500 feet from the nearest system connection; or
    - iv. if that public water supply system is otherwise unavailable to the disposal site area.

(2) The Section IV. score shall be the total of the scores of Subsections IV.A., IV.B., and IV.C.

(3) It shall be indicated in Section IV. where provided if Section VI. is used to amend the Section IV. score.

40.1508: NRS Section V - Ecological Population

(1) Section V evaluates the potential risks posed to the environment by a release of oil or hazardous materials based on the proximity of the disposal site to sensitive environmental areas.

(a) The Score for Environmental Resource Areas, Subsection V.A. is the sum of the scores assigned to: Areas of Critical Environmental Concern; Species of Special Concern, Threatened or Endangered Species Habitat; Surface Water (including Wetlands and Vernal Pools); Wetlands, Vernal Pools or Outstanding Resource Waters; Fish Habitat; and Protected Open Space.

1. Areas of Critical Environmental Concern (ACECs) shall be assigned a score of:
  - a. zero, if no portion of the disposal site is located less than 500 feet from an ACEC; or
  - b. 20, if any portion of the disposal site is located 500 feet or less from the boundaries of an ACEC; or
  - c. 30, if any portion of the disposal site is located within the boundaries of an ACEC.
2. Habitats of Species of Special Concern, Threatened or Endangered Species shall be assigned a score of:
  - a. zero, if no portion of the disposal site is located less than 500 feet from the habitat of a Species of Special Concern, Threatened or Endangered Species; or
  - b. 30, if any portion of the disposal site is located less than 500 feet from any such habitat.
3. Wetlands, Vernal Pool, or Outstanding Resource Waters shall be assigned a score of:
  - a. zero, if no portion of the disposal site is located less than 100 feet from any wetland, vernal pool, or Outstanding Resource Water; or
  - b. 20, if any portion of the disposal site is located within 100 feet of the boundary of a wetland, vernal pool, or Outstanding Resource Water; or
  - c. 30 if any portion of the disposal site is located within the boundaries of a wetland, vernal pool, or Outstanding Resource Water.
4. Fish Habitat shall be assigned a score of:
  - a. zero, if no portion of the disposal site is located less than 500 feet from a Fish Habitat; or
  - b. 20, if any portion of the disposal site is located 500 feet or less from the boundaries of a Fish Habitat; or
  - c. 30, if any portion of the disposal site is located within the boundaries of a Fish Habitat.
5. Protected Open Space shall be assigned a score of:
  - a. zero, if no portion of the disposal site is located less than 500 feet from a Protected Open Space; or
  - b. 20, if any portion of the disposal site is located 500 feet or less from the boundaries of a Protected Open Space; or
  - c. 30, if any portion of the disposal site is located within the boundaries of a Protected Open Space.

(b) Environmental Toxicity Score, Subsection V.B shall be scored if the unamended score assigned to 310 CMR 40.1511 Subsection V.A. is greater than or equal to 30. Subsection V.B. evaluates the disposal site on the basis of the type of oil or hazardous material released to the environment and the environmental toxicity of such oil or hazardous materials in relation to the concentrations of such oil or hazardous materials in the environment.

1. The highest toxicity score selected shall be assigned for Subsection V. B., Environmental Toxicity Score. An Environmental Toxicity Score shall be selected for each oil or hazardous material identified at the disposal site in soils, including sediments, and in surface water and groundwater where the soil, groundwater or surface water media received an unamended score greater than zero in 310 CMR 40.1512. Environmental Toxicity Scores are not required to be developed for concentrations of oil or hazardous material detected in the air. One of the following methods shall be used in selecting the Environmental Toxicity Score:

40.1508: continued

- a. The Environmental Toxicity Score shall be selected from Table V.B. of 310 CMR 40.1511, based on the concentration of the oil or hazardous material in soil or water; or
  - b. The Environmental Toxicity Value shall be selected from 310 CMR 40.1516(1), and the corresponding Toxicity Score shall be selected from 310 CMR 40.1511 Worksheet V.B.1, based on the concentration of the oil or hazardous material in soil or water; or
  - c. For oil or hazardous materials not listed in Table V.B. of 310 CMR 40.1511 or 310 CMR 40.1516(1), an Environmental Toxicity Default Value shall be derived from the criteria contained in 310 CMR 40.1516(2), and the corresponding Toxicity Score shall be selected from 310 CMR 40.1511 Worksheet V.B.1, based on the concentration of the oil or hazardous material in soil or water; or
  - d. If new toxicity data not included in 310 CMR 40.1516(1) for a particular oil or hazardous material become available from the U.S. Environmental Protection Agency after the effective date of these regulations, the Toxicity Value shall be selected in accordance with 310 CMR 40.1516(3), the Toxicity Score shall be selected in accordance with 310 CMR 40.1511 Worksheet V.B.1. based on the concentration of the oil or hazardous material in soil or water, and such new data shall be documented in an addendum to the NRS Scoresheet.
2. In 310 CMR 40.1511 Subsection V.B. of the Numerical Ranking System Scoresheet the following shall be clearly identified: the highest Environmental Toxicity Score selected and assigned in accordance with 310 CMR 40.1508(1)(b)1.; the corresponding substance name; the Environmental Toxicity Value if required pursuant to this section; and the concentration in soil or water.
- (2) The Section V. score shall be the sum of the scores from Subsections V.A and V.B.
- (3) It shall be indicated in Section V. where provided if Section VI. is used to amend the Section V. score.

40.1509: NRS Section VI. - Mitigating Disposal Site-Specific Conditions

- (1) Section VI. may be used to add or subtract a maximum of 50 points from the total NRS score. Additions or subtractions may only be made in five point increments for each subsection.
- (2) Section VI. shall only be used to amend a score when the LSP rendering an Opinion relative to the NRS for the RP, PRP or Other Person believes, or the Department determines, that specific disposal site conditions warrant a reduction or increase in the score assigned in a particular subsection pursuant to the Response Action Performance Standard in 310 CMR 40.0191.
- (3) Amendments shall directly relate to the range of scores possible in each particular subsection. Amendments shall not reduce the score assigned in a particular subsection to less than zero or increase such score above the maximum score that could be assigned.
- (4) The following amendments are allowable in Section VI., provided that the total number of points added or subtracted from all subsections does not exceed 50 points:
- (a) For amendments to 40.1511 subsections II.A., II.B., and II.C. up to 50 points may be added or subtracted in five point increments, provided the amended score for each subsection is not less than zero or more than 150 points.
  - (b) For amendments to 40.1511 subsection II.D., up to 50 points may be added or subtracted in five point increments, provided the amended score for this subsection is not less than zero or more than 200 points.
  - (c) For amendments to 40.1511 subsection II.E. up to 50 points may be added or subtracted in five point increments, provided the amended score for the subsection is not less than zero or more than 50 points.

40.1509: continued

- (d) For amendments to 40.1511 subsection III.A. up to 50 points may be added or subtracted in five point increments, provided the amended score for the subsection is not less than one or more than 80 points.
- (e) For amendments to 40.1511 subsection III.B. up to 30 points may be added or subtracted in five point increments, provided the amended score for the subsection is not less than zero or more than 30 points.
- (f) For amendments to 40.1511 subsection III.C. up to 50 points may be added or subtracted in five point increments, provided the amended score for the subsection is not less than zero or more than 50 points.
- (g) For amendments to 40.1511 subsection III.D. up to 20 points may be added or subtracted in five point increments, provided the amended score for the subsection is not less than two or more than 20 points.
- (h) For amendments to 40.1511 subsections IV.A. and IV.B. up to 40 points may be added or subtracted in five point increments in each subsection, provided the amended score for each subsection is not less than zero or more than 40 points.
- (i) For amendments to 40.1511 subsection IV.C. up to 50 points may be added or subtracted in five point increments, provided the amended score for the subsection is not less than zero or more than 125 points.
- (j) For amendments to 40.1511 subsection V.A. up to 50 points may be added or subtracted in five point increments, provided the amended score for the subsection is not less than zero or more than 150 points.
- (k) For amendments to 40.1511 subsection V.B. up to 35 points may be added or subtracted in five point increments, provided the amended score for the subsection is not less than zero or more than 35 points.

(3) Section VI. of 310 CMR 40.1511 shall reference specific pages of the Phase I or other applicable Reports where the basis and Technical Justification for a score amendment are provided.

40.1510: Completion of the NRS Scoresheet

- (1) Disposal Site Score. The scores assigned for Sections II., III., IV., V., and VI. shall be recorded in the Scoresheet table marked "DISPOSAL SITE SCORE". The scores assigned for Sections II., III., IV., V., and VI. shall be added and recorded in the "TOTAL" box on Scoresheet table marked "DISPOSAL SITE SCORE".
- (2) The disposal site's Tier Classification shall be indicated where required as Tier I or Tier II in accordance with the Disposal Site Score and tier classification criteria in 310 CMR 40.0520.

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Bureau of Waste Site Cleanup

NUMERICAL RANKING SYSTEM SCORESHEET  
(310 CMR 40.1511)

CLASSIFICATION SUBMITTAL		DISPOSAL SITE SCORE					
Initial Submittal	Re-Classification	II	III	IV	V	VI	TOTAL
<input type="checkbox"/>	<input type="checkbox"/>						

Disposal Site Tier Classification	I			II
Permit Category (Tier I Only)	A	B	C	

\*\*\*\*\*

I. DISPOSAL SITE INFORMATION

DEP Release Tracking Number(s)		UTM Coordinates	N:	
DEP Disposal Site Number(s)			E:	

Disposal Site Name			
Disposal Site Address			
	City:	Zip:	

Is the Disposal Site classified Tier I because it is located within the boundaries of a Zone II or Interim Wellhead Protection Area and groundwater concentrations equal or exceed RCGW-1 at the time of Tier Classification pursuant to 310 CMR 40.0520(2)(a)1.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is the Disposal Site classified Tier I because an Imminent Hazard is present at the time of Tier Classification pursuant to 310 CMR 40.0520(2)(a)2.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

I attest under the pains and penalties of perjury that I have personally completed this Numerical Ranking System Scoresheet, and have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this submittal, and in my professional opinion and judgment based upon: (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief, this Scoresheet was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000. I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

Licensed Site Professional Signature	LSP Registration Number	Date
LSP Name (Printed)	Company Name	Telephone Number
Responsible Party, Potentially Responsible Party, or Other Person who will provide certification in accordance with 310 CMR 40.0009.		

40.1511 (Continued)

II. EXPOSURE PATHWAYS

II. EXPOSURE PATHWAYS				
Score according to 40.1512 - Exposure Pathway Designation Criteria				
MEDIA	DESIGNATION			
	NONE or NOT APPLICABLE	EVIDENCE OF CONTAMINATION	POTENTIAL EXPOSURE PATHWAY	LIKELY OR CONFIRMED EXPOSURE PATHWAY
A. SOIL (Includes Sediment)	0	15	100	150
B. GROUNDWATER	0	20	100	150
C. SURFACE WATER (Includes Wetlands)	0	20	100	150
D. AIR	0	15	100	200

Note: Score only the highest value for each media, i.e., score None or Not Applicable or Evidence of Contamination or Potential Exposure Pathway or Likely or Confirmed Exposure Pathway.

II. (A - D)	Summary Rationale for Section II A - D Values and Phase I Report References

II.E. OHM SOURCES			
Number of OHM Sources	1	2	3
	0	25	50

SECTION II SCORE (A. + B. + C. + D. + E.)					
A.	B.	C.	D.	E.	TOTAL: (15 - 700)

Check here if Section VI has been used to amend the score for this Section of the NRS.	<input type="checkbox"/>
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40.1511 (Continued)

III. DISPOSAL SITE CHARACTERISTICS

III.A. OHM TOXICITY SCORE	
Highest OHM Toxicity Score From Table III.A. or Worksheet III.A.1. on Following Pages.	
OHM Scored: _____  Concentration and Media: _____	Toxicity Score (1 - 80)  _____

III.B. MULTIPLE OHMs		
More Than One OHM With an OHM Toxicity Score of ~ 30	No  0	Yes  30

III.C. OHM MOBILITY and PERSISTENCE	
Score according to 40.1514 - OHM Mobility and Persistence	
OHM Scored:  _____	Score (0 - 50)  _____

III.D. DISPOSAL SITE HYDROGEOLOGY			
Score according to 40.1515 - Soil Permeability			
DEPTH TO GROUNDWATER  (in feet)	SOIL PERMEABILITY		
	Low	Medium	High
> 25	2	4	8
10.1 - 25	4	8	12
5.1 - 10	8	12	16
0 - 5	12	16	20

SECTION III SCORE (A + B + C + D)				
A.  _____	B.  _____	C.  _____	D.  _____	TOTAL: (3 - 180)  _____

Check here if Section VI has been used to amend the score for this Section of the NRS.	<input type="checkbox"/>
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40.1511: continued

Table III.A. OHM TOXICITY SCORE							
OHM	CONCENTRATION (soil/sediment : g/g; surface/groundwater : g/l)						
	< 99	100 - 999	1,000 - 9,999	10,000 - 100,000	> 100,000 NAPL < 0.5"	NAPL 0.5" - 12"	NAPL > 12"
Aliphatics C5-C8	5	15	25	35	45	55	65
C9-C12	1	10	20	30	40	50	60
C9-C18	1	10	20	30	40	50	60
C19-C36	1	10	20	30	40	50	60
Arsenic	20	30	40	50	60		
Aromatics C9-C10	5	15	25	35	45	55	65
C11-C22	5	15	25	35	45	55	65
Benzene	15	25	35	45	55	65	75
Bis(2-ethylhexyl)phthalate	10	20	30	40	50	60	70
Cadmium	20	30	40	50	60		
Carbon Tetrachloride	20	30	40	50	60	70	80
Chlorobenzene	5	15	25	35	45	55	65
Chromium III	1	10	20	30	40		
Chromium VI	10	20	30	40	50		
Coal Tar	10	20	30	40	50	60	70
Cyanide	5	15	25	35	45		
1,1 Dichloroethane	10	20	30	40	50	60	70
1,2 Dichloroethane	10	20	30	40	50	60	70
Ethylbenzene	5	15	25	35	45	55	65
Ethylene Dibromide	20	30	40	50	60	70	80
#2 Fuel Oil (virgin product)	5	15	25	35	45	55	65
Gasoline (virgin product)	10	20	30	40	50	60	70
Lead	20	30	40	50	60		
Mercury	20	30	40	50	60	70	80
Methylene Chloride	10	20	30	40	50	60	70
Methyl Ethyl Ketone	1	10	20	30	40	50	60
Methyl Tert Butyl Ether	5	15	25	35	45	55	65
Nickel	5	15	25	35	45		



40.1511: continued

Table III.A. - continued							
OHM TOXICITY SCORE							
OHM	CONCENTRATION (soil/sediment : g/g; surface/groundwater : g/l)						
	< 99	100 - 999	1,000 - 9,999	10,000 - 100,000	> 100,000 NAPL < 0.5"	NAPL 0.5" - 12"	NAPL > 12"
Phenol	1	10	20	30	40	50	60
PAHs	10	20	30	40	50	60	70
PCBs	20	30	40	50	60	70	80
Tetrachloroethylene	10	20	30	40	50	60	70
Toluene	1	10	20	30	40	50	60
1,1,1 Trichloroethane	5	15	25	35	45	55	65
Trichloroethylene	15	25	35	45	55	65	75
Vinyl Chloride	15	25	35	45	55	65	75
Xylenes	1	10	20	30	40	50	60
Zinc	1	10	20	30	40		

## 40.1511 (Continued)

*See 40.1513 for Human Health-Based Toxicity Values for each OHM.*

[illegible]

40.1511 (Continued)

**IV. HUMAN POPULATION AND LAND USES**

<b>IV.A. HUMAN POPULATION</b>				
Residential Population Within ½ Mile	None 0	1 - 99 5	100 - 999 10	~ 1,000 15
Institutions Within 500 feet	None 0		One or More 10	
On-Site Workers	None 0	1 - 99 5	100 - 999 10	~ 1,000 15

<b>IV.B. AQUIFERS</b>		
Sole Source Aquifer	No	Yes
Name: _____	0	25
Potentially Productive Aquifer	No 0	Medium or High 15

<b>IV.C. WATER USE</b>					
Proximity of Disposal Site to Public Drinking Water Supply Source	Not Applicable (NA) 0			Zone A 20	Zone II, IWPA, or SW Intake < 400' 50
Persons Served by Public Drinking Water Supply	NA 0	25 - 999 5	1,000 - 4,999 10	5,000 - 49,999 20	~ 50,000 25
Private Water Supplies Within 500 Feet	None 0		Commercial Industrial 10	Agriculture Residential (Not Ingested) 15	Drinking Food Processing 25
Alternative Public Water Supply Available (Viable Public Water Supply in Disposal Site Community and Public Water Connection < 500 Feet from Site)	Yes 0			No 25	

<b>SECTION IV SCORE (A + B + C)</b>			
A. _____	B. _____	C. _____	TOTAL: (0 - 205) _____

Check here if Section VI has been used to amend the score for this Section of the NRS.

☐

40.1511 (Continued)

**V. ECOLOGICAL POPULATION**

<b>V.A. ENVIRONMENTAL RESOURCE AREAS</b>			
<i>RESOURCE</i>	<i>LOCATION</i>		
Area of Critical Environmental Concern	> 500' from Site 0	≤ 500' from Site 20	On-Site 30
Species of Special Concern, Threatened or Endangered Species Habitat	> 500' from Site 0	On-Site or ≤ 500' from Habitat 30	
Wetlands, Certified Vernal Pool, or Outstanding Resource Water	> 100' from Site 0	≤ 100' from Site 20	On-Site 30
Fish Habitat	> 500' from Site 0	≤ 500' from Site 20	On-Site 30
Protected Open Space (Local/State/Federal/Trustee)	> 500' from Site 0	≤ 500' from Site 20	On-Site 30

**SCORE SECTION V.B. ONLY IF SECTION V.A. SCORE IS ≥ 30.**

<b>V.B. ENVIRONMENTAL TOXICITY SCORE</b>  <i>Highest Environmental Toxicity Score</i> <i>From Table V.B. or Worksheet V.B.1. on Following Pages.</i>	
OHM Scored: _____  Concentration and Media: _____	Toxicity Score (1 - 35)  _____

<b>SECTION V. SCORE (A. + B.)</b>		
A. _____	B. _____	TOTAL: (0 - 185) _____

Check here if Section VI has been used to amend the score for this Section of the NRS.

☐

40.1511 (Continued)

Table V.B. ENVIRONMENTAL TOXICITY SCORE					
OHM	CONCENTRATION (soil/sediment: : g/g; surface/groundwater : g/l)				
	< 1	1 - 99	100 - 999	1,000 - 9,999	~ 10,000
Arsenic	5	10	15	20	25
Benzene	0	1	5	10	15
Bis(2-ethylhexyl)phthalate *	5	10	15	20	25
Cadmium	10	15	20	25	30
Carbon Tetrachloride	0	1	5	10	15
Chlorobenzene *	5	10	15	20	25
Chromium III	1	5	10	15	20
Chromium VI	5	10	15	20	25
Coal Tar *	5	10	15	20	25
Cyanide	5	10	15	20	25
1,1 Dichloroethane *	5	10	15	20	25
1,2 Dichloroethane	0	1	5	10	15
Ethylbenzene	0	1	5	10	15
Ethylene Dibromide *	5	10	15	20	25
#2 Fuel Oil (virgin product) *	1	5	10	15	20
Gasoline (virgin product) *	5	10	15	20	25
Lead	5	10	15	20	25
Mercury	15	20	25	30	35
Methylene Chloride *	5	10	15	20	25
Methyl Ethyl Ketone *	5	10	15	20	25
Methyl Tert Butyl Ether *	1	5	10	15	20
Nickel	1	5	10	15	20
Phenol	0	1	5	10	15
PAHs *	5	10	15	20	25
PCBs	15	20	25	30	35
Tetrachloroethylene	0	1	5	10	15
Toluene	0	1	5	10	15
1,1,1 Trichloroethane	0	1	5	10	15
Trichloroethylene	0	1	5	10	15

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Table V.B. ENVIRONMENTAL TOXICITY SCORE					
<i>OHM</i>	<i>CONCENTRATION</i> (soil/sediment: : g/g; surface/groundwater : g/l)				
	< 1	1 - 99	100 - 999	1,000 - 9,999	~ 10,000
Vinyl Chloride *	5	10	15	20	25
Xylenes *	5	10	15	20	25
Zinc	1	5	10	15	20

\* Scores derived by default methods 40.1516(2).

NON-TEXT PAGE

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40.1511 (Continued)

*Use Worksheet V.B.1. to determine Environmental Toxicity Scores for OHM not listed in Table V.B.**See 40.1516 for Environmental Toxicity Values for each OHM.*

<b>Worksheet V.B.1 ENVIRONMENTAL TOXICITY SCORE</b>					
ENVIRONMENTAL TOXICITY VALUE	CONCENTRATION				
	Use : g/g for Soil and : g/l for Surface Water or Groundwater				
	< 1	1 - 99	100 - 999	1,000 - 9,900	~ 10,000
10	0	1	5	10	15
20	1	5	10	15	20
30	5	10	15	20	25
40	10	15	20	25	30
50	15	20	25	30	35

<i>V.B.1. OHM and Concentrations Used in Section V.B.1.</i>				
OHM	Environmental Toxicity Value	Concentration (Soil - : g/g)	Concentration (Water - : g/l)	Environmental Toxicity Score



[illegible]

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40.1512 Exposure Pathway Designation Criteria

40.1512(1) Soil

II.A. SOIL EXPOSURE CRITERIA		
DEFINITION	Soil includes sediments.	
DESIGNATION	CRITERIA	POINTS
NONE <i>or</i> NOT APPLICABLE	<p><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>○ OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, soil.</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>○ OHM has not been identified in soils at concentrations &gt; applicable soil Reportable Concentrations (RCs). This criteria may be met by conducting a response action in accordance with these regulations to reduce soil concentrations.</li> </ul>	0
EVIDENCE OF CONTAMINATION  (Assumes No Exposure Pathway)	<p><i>Any of the Following</i></p> <ul style="list-style-type: none"> <li>○ A release of OHM to soil has been identified but no laboratory analysis has been conducted.</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>○ Qualitative evidence of a release. <ul style="list-style-type: none"> <li>● OHM stained soils <i>or</i></li> <li>● Distressed vegetation <i>or</i></li> <li>● OHM-attributable odors <i>or</i></li> </ul> </li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>○ OHM has been identified in soils at concentrations ~ applicable RCs.</li> </ul>	15
POTENTIAL EXPOSURE PATHWAY	<p><i>All of the Following</i></p> <ul style="list-style-type: none"> <li>○ OHM has been identified at concentrations ~ applicable soil RCs ~ 6" from the accessible soil surface. OHM located beneath unbroken paved surfaces/concrete slabs may be considered inaccessible.</li> </ul> <p><i>and</i></p> <ul style="list-style-type: none"> <li>○ Efforts to restrict access to the area where a release of OHM has been identified have been unsuccessful, have not been taken, or are infeasible. Fencing may be sufficient to show restriction of access unless there has been evidence of repeated access to areas of OHM-contaminated surficial soils.</li> </ul> <p><i>and</i></p> <ul style="list-style-type: none"> <li>○ The area of OHM contamination is not used for active recreation.</li> </ul>	100
LIKELY <i>or</i> CONFIRMED EXPOSURE PATHWAY	<p><i>All of the Following</i></p> <ul style="list-style-type: none"> <li>○ OHM has been identified at concentrations ~ applicable soil RCs ~ 6" from the accessible soil surface.</li> </ul> <p><i>and</i></p> <ul style="list-style-type: none"> <li>○ Efforts to restrict access to the area where a release of OHM has been identified have been unsuccessful, have not been taken, or are infeasible.</li> </ul> <p><i>and</i></p> <ul style="list-style-type: none"> <li>○ The area of contamination is used for active recreation (e.g., bicycling, dirt-biking, playground, or ballfield) or gardening.</li> </ul>	150

## 40.1512(2) Groundwater

<b>II.B. GROUNDWATER EXPOSURE CRITERIA</b>		
DEFINITION	Score source area and extent of plume(s) as defined by most recent field studies.	
<i>DESIGNATION</i>	<i>CRITERIA</i>	POINTS
NONE <i>or</i> NOT APPLICABLE	<p><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>O OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, groundwater.</li> <li><i>or</i></li> <li>O OHM has not been identified in groundwater at concentrations ~ applicable groundwater RCs. This criteria may be met by conducting a response action, in accordance with these regulations, to reduce groundwater concentrations.</li> </ul>	0
EVIDENCE OF CONTAMINATION  (Assumes No Exposure Pathway)	<p><i>Any of the Following</i></p> <ul style="list-style-type: none"> <li>O A release of OHM to groundwater has been identified but no laboratory analysis has been conducted.</li> <li><i>or</i></li> <li>O A non-aqueous phase liquid (NAPL) has been identified in or on the groundwater.</li> <li><i>or</i></li> <li>O OHM has been identified in groundwater at concentrations ~ applicable groundwater RCs.</li> </ul>	20
POTENTIAL EXPOSURE PATHWAY	<p><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>O A private drinking water well is located within 500' of any portion of a disposal site where OHM has been identified in groundwater at concentrations ~ 310 CMR 40.0974(2).</li> <li><i>or</i></li> <li>O The disposal site is located within a Zone II or upgradient of a public well within an Interim Wellhead Protection Area <i>and</i> OHM has been identified in groundwater at concentrations ~ 310 CMR 40.0974(2).</li> </ul>	100
LIKELY <i>or</i> CONFIRMED EXPOSURE PATHWAY	<p><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>O OHM, possibly attributable to the disposal site, has been identified in a public or private drinking water supply well. Drinking water samples shall be taken prior to treatment or blending.</li> <li><i>or</i></li> <li>O A reasonable likelihood exists that a public or private drinking water supply well has been or is likely to be impacted by OHM from the disposal site.</li> </ul>	150

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40.1512(3) Surface Water

II.C. SURFACE WATER EXPOSURE CRITERIA		
DEFINITION	As defined by 310 CMR 40.0006, including rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, coastal waters and vernal pools.	
DESIGNATION	CRITERIA	POINTS
NONE <i>or</i> NOT APPLICABLE	<p>O OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, surface waters.</p>	0
EVIDENCE OF CONTAMINATION  (Assumes No Exposure Pathway)	<p><i>Any of the Following</i></p> <p>O A release (past or on-going) of OHM to surface water has been identified.</p> <p><i>or</i></p> <p>O Qualitative evidence of a release.</p> <ul style="list-style-type: none"> <li>OHM-attributable visible sheen or discoloration; <i>or</i></li> <li>OHM entering surface water; <i>or</i></li> <li>OHM-attributable stained soils in contact with surface water; <i>or</i></li> <li>There is a reasonable likelihood that OHM <i>will</i> be identified in surface water as a result of OHM migration.</li> </ul> <p><i>or</i></p> <p>O OHM, likely attributable to the disposal site, has been identified in groundwater at concentrations that are likely to result in detectable concentrations in surface water.</p>	20
POTENTIAL EXPOSURE PATHWAY	<p><i>Either of the Following</i></p> <p>O OHM, likely to be attributable to the disposal site, has been identified in a surface water known to be used for drinking, swimming, boating or fishing.</p> <p><i>or</i></p> <p>O OHM, likely to be attributable to the disposal site, has been identified at concentrations ~ Ambient Water Quality Criteria (AWQC) pursuant to 40.1505(2) and 40.1516(1).</p>	100
LIKELY <i>or</i> CONFIRMED EXPOSURE PATHWAY	<p><i>Any of the Following</i></p> <p>O There is a reasonable likelihood that a surface public drinking water supply has been or may be impacted by OHM from the disposal site.</p> <p><i>or</i></p> <p>O OHM, possibly attributable to the disposal site, has been identified at the entry point to a public drinking water supply distribution system.</p> <p><i>or</i></p> <p>O A fish advisory likely attributable to the disposal site is in effect.</p> <p><i>or</i></p> <p>O OHM likely attributable to the disposal site present has been identified at concentrations ~ Ambient Water Quality Criteria (AWQC) pursuant to 40.1505(2) and 40.1516(1), and the disposal site is located in or contains: an Area of Critical Environmental Concern (ACEC); a mapped habitat of a Species of Special Concern, Endangered or Threatened Species; a Certified Vernal Pool; a Restricted Wetland; an Outstanding Resource Water; a fish habitat; or a Protected Open Space.</p>	150

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40.1512(4) Air

II.D. AIR EXPOSURE CRITERIA		
DEFINITION	Air contamination includes both vapors, particularly focusing on indoor air, and particulates. Score only releases regulated under C. 21E; do not score permitted releases associated with on-going commercial or industrial processes.	
DESIGNATION	CRITERIA	POINTS
NONE <i>or</i> NOT APPLICABLE	<ul style="list-style-type: none"> <li>O OHM likely attributable to the disposal site has not been identified in, and is not anticipated to be identified in, air.</li> </ul>	0
EVIDENCE OF CONTAMINATION  (Assumes No Exposure Pathway)	<p><i>Any of the following</i></p> <ul style="list-style-type: none"> <li>O A release, or potential release, of OHM to air has been identified.</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>O OHM that may be released to air as particulate material has been identified in the top 6" of the ground surface. Unbroken paved/concrete slab surfaces <i>may</i> be interpreted as preventing release of particulates to air.</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>O OHM that may be released to air as a vapor has been identified in an open container or surface impoundment that is part of the disposal site.</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>O An odor that is reasonably attributable to a release of OHM at the disposal site has been identified.</li> </ul>	15
POTENTIAL EXPOSURE PATHWAY	<p><i>Any of the Following</i></p> <ul style="list-style-type: none"> <li>O OHM releases, likely attributable the disposal site, have been repeatedly identified in ambient air within 100' of a residence, school, hospital, nursing home, or playground when such releases are above ambient background concentrations and are not related to permitted releases.</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>O Total volatile organic compounds have been identified in groundwater at concentrations <math>\geq</math> 5 mg/l within 30 feet of a school or occupied residence where the depth to groundwater is <math>\leq</math> 15 feet. Soil gas surveys or indoor air sampling may be conducted to demonstrate no exposure to OHM.</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>O A reasonable likelihood exists that the indoor air quality of an occupied building <i>will be</i> impacted by OHM likely attributable to the disposal site.</li> </ul>	100
LIKELY <i>or</i> CONFIRMED EXPOSURE PATHWAY	<p><i>Either of the Following</i></p> <ul style="list-style-type: none"> <li>O OHM has been identified in indoor air in an occupied building, above background concentrations, when the OHM is likely attributable to a non-permitted release at the disposal site.</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>O A reasonable likelihood exists that OHM likely attributable to the disposal site <i>is</i> affecting air quality in an occupied building.</li> </ul>	200

40.1513 Human Health-Based Toxicity Values and Scores

(1) The Human Health-Based Toxicity Values found in 310 CMR 40.1513(2) shall be used to score OHM not included in Table III.A. of the Scoresheet. If a site-related OHM is not listed in 310 CMR 40.1513(2) use the Relative Toxicity Value Matrix [310 CMR 40.1513(3)] to derive a OHM-specific Toxicity Value. Correlate the value derived using 310 CMR 40.1513(3) with the OHM concentration to determine the OHM Toxicity Score using Worksheet III.A.1. in the Scoresheet. Record each OHM name, Toxicity Value, concentration and Toxicity Score in Table *III.A.1* of the Scoresheet.

(2) Human Health-Based Toxicity Values

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD  mg/kg/d	Oral Cancer Slope Factor  1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor  1/(mg/kg/d)	CLASS	HUMAN TOXICIT Y VALUE
Acenaphthene	83329	6.0e-02					8
Acenaphthylene	208968			D		D	25
Acephate	30560191	4.0e-03	8.7e-03	C		ND	30
Acetaldehyde	75070						25
Acetone	67641	1.0e-01		D		D	8
Acetone Cyanohydrin	75865	8.0e-04					40
Acetonitrile	75058	6.0e-03		D			25
Acetophenone	98862	1.0e-01		D		D	8
Acetyl Chloride	75365			D		D	25
Acrolein	107028	2.0e-02		C		C	25
Acrylamide	79061	2.0e-04	4.5e+00	B2	4.5e+00	B2	46
Acrylic acid	79107	5.0e-01					4
Acrylonitrile	107131	1.0e-03	5.4e-01	B1	2.4e-01	B1	34
Alachlor	15972608	1.0e-02	8.0e-02	B2		B2	25
Aldicarb	116063	1.0e-03		D		D	25
Aldrin	309002	3.0e-05	1.7e+01	B2	1.7e+01	B2	50
Aliphatics	C5-C8	6.0e-02					8
	C9-C12	6.0e-01					4
	C9-C18	6.0e-01					4
	C19-C36	6.0e+00					4
Alkanes/Alkenes							25
Allyl Alcohol	107186	5.0e-03					25
Allyl Chloride	107051	5.0e-02		C		C	22
Aluminum phosphide	20859738	4.0e-04					40
Ametryn	834128	9.0e-03					18
Aminopyridine, 4-	504245	2.0e-05		D		D	40
Ammonia	7664417						25
Ammonium Acetate	631618			D		D	25
Aniline	62533		5.7e-03	B2		B2	22
Anthracene	120127	3.0e-01		D		D	4
Antimony	7440360	4.0e-04					40
Antimony Potassium Tartrate	28300745	9.0e-04					40
Antimony Trioxide	1309644	4.0e-04					40
Aroclor 1016	12674112	7.0e-05	7.7	B2		B2	50
Aromatics	C9-C10	3.0e-02					18
	C11-C22	3.0e-02					18
Arsenic	7440382	3.0e-04	1.5e+00	A	5.0e+01	A	46
Asbestos	1332214			A		A	34

40.1513: continued

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Atrazine	1912249	3.5e-02	2.2e-01	C		C	28
Barium	7440393	7.0e-02					8
Barium Cyanide	542621	1.0e-01					8
Baygon	114261	4.0e-03					25
Benzaldehyde	100527	1.0e-01					8
Benzene	71432	5.0e-03	2.9e-02	A	2.9e-02	A	30
Benzidine	92875	3.0e-03	2.3e+02	A	2.3e+02	A	46
Benzoic acid	65850	4.0		D		D	4
Benzotrichloride	98077		1.3e+01	B2		B2	44
Benzo(a)anthracene	56553			B2		B2	28
Benzo(b)fluoranthene	205992			B2		B2	28
Benzo[a]pyrene	50328		7.3e+00	B2	6.1e+00	B2	44
Benzo[k]fluoranthene	207089			B2		B2	28
Benzyl Chloride	100447		1.7e-01	B2		B2	25
Beryllium	7440417	2.0e-03	4.3e+00	B2	8.4e+00	B2	38
Biphenyl, 1,1-	92524	5.0e-02		D		D	8
Bis(2chloro-1methylethyl)ether	108601		5.0e-02	C	3.5e-02	C	25
Bis(2-chloroethyl)ether	111444		1.1e+00	B2	1.1e+00	B2	34
Bis(2-ethylhexyl)phthalate	117817	2.0e-02	1.4e-02	B2		B2	22
Bis(chloromethyl)ether	542881		2.2e+02	A	2.2e+02	A	44
Bromodichloromethane	75274	2.0e-02	6.2e-02	B2		B2	25
Bromoform	75252	2.0e-02	7.9e-03	B2	3.9e-03	B2	22
Bromomethane	74839	1.4e-03		D			25
Bromoxynil	1689845	2.0e-02					18
Butadiene, 1,3-	106990				1.8e+00	B2	18
Butanol, n-	71363	1.0e-01		D		D	8
Butyl Benzyl Phthalate	85687	2.0e-01		C		NA	20
Butylate	2008415	5.0e-02					8
Cacodylic Acid	75605	3.0e-03		D		D	25
Cadmium	7440439	5.0e-04		ND	6.1e+00	B1	50
Calcium Chromate	13765190						25
Calcium Cyanide	592018	4.0e-02					18
Captafol	2425061	2.0e-03	8.6e-03	C		C	30
Captan	133062	1.3e-01	3.5e-03	B2		B2	20
Carbaryl	63252	1.0e-01					8
Carbofuran	1563662	5.0e-03					25
Carbon Disulfide	75150	1.0e-01					8
Carbon Tetrachloride	56235	7.0e-04	1.3e-01	B2	5.3e-02	B2	43
Chloral	75876	2.0e-03					25

40.1513: continued

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Chlordane	57749	6.0e-05	3.5e-01	B2	1.3e+00	B2	46
Chlorine	7782505	1.0e-01					8
Chlorine Dioxide	10049044			D		D	25
Chloroacetic Acid	79118	2.0e-03					25
Chloroacetophenone, 2-	532274						25
Chloroaniline, 4-	106478	4.0e-03					25
Chlorobenzene	108907	2.0e-02		D		D	18
Chlorobenzilate	510156	2.0e-02	2.7e-01	B2	2.7e-01	B2	28
Chlorobutane, 1-	109693	4.0e-01		D		D	4
Chloroethane	75003						25
Chloroform	67663	1.0e-02	6.1e-03	B2	8.1e-02	B2	22
Chloromethane	74873		1.3e-02	C	6.3e-03	C	22
Chloromethyl Methyl Ether	107302			A		A	34
Chloronaphthalene, beta	91587	8.0e-02					8
Chloronitrobenzene, o-	88733		2.5e-02	B2		B2	22
Chloronitrobenzene, p-	100005		1.8e-02	B2		B2	22
Chlorophenol, 2-	95578	5.0e-03					25
Chloroprene	126998	2.0e-02					18
Chloropropane, 2-	75296						25
Chlorothalonil	1897456	1.5e-02	1.1e-02	B2		B2	22
Chlorpropham	101213	2.0e-01					4
Chlorpyrifos	2921882	3.0e-03					25
Chlorpyrifos-methyl	5598130	1.0e-02					18
Chlorthiophos	21923239	8.0e-04					40
Chromic Acid	7738945						25
Chromium III	16065831	15e+00					4
Chromium VI	7440473	3.0e-03		ND	4.1e+01	A	25
Chrysene	218019			B2		B2	28
Coal Tars				ND		ND	25
Coke Oven Emissions	8007452				2.2e+00	A	34
Copper	7440508			D		D	25
Creosote	8001589			B1		B1	28
Cresol, meta-	108394	5.0e-02		C		C	22
Cresol, ortho-	95487	5.0e-02		C		C	22
Cresol, para-	106445	5.0e-03		C		C	32
Crotonaldehyde	123739		1.9e+00	C	1.9e+00	C	34
Cumene	98828	1.0e-01		D		D	8
Cyanide	57125	2.0e-02		D		D	18



40.1513: continued

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Cyanogen	460195	1.0e-01					8
Cyclohexane	110827						25
Cyclohexylamine	108918	2.0e-01					4
Cyclonite (RDX)	121824	3.0e-03	1.1e-01	C		C	32
D, 2,4-	94757	1.0e-02					18
Dalapon (sodium salts)	75990	3.0e-02					18
DB, 2,4-	94826	8.0e-03					18
DBCP	96128	2.0e-02	1.4e+00	B2	2.4e-03	B2	34
DDD	72548		2.4e-01	B2			28
DDE	72559		3.4e-01	B2		B2	28
DDT	50293	5.0e-04	3.4e-01	B2	3.4e-01	B2	45
Demeton	8065483	4.0e-05					40
Diallate	2303164		6.1e-02	B2		B2	25
Diazinon	333415	9.0e-04					40
Dibenzofuran	132649			D		D	25
Dibromochloromethane	124481	2.0e-02	8.4e-02	C		C	25
Dibromoethane, 1,2-	106934	2.0e-05	8.5e+01	B2	7.6e-01	B2	50
Dicamba	1918009	3.0e-02					18
Dichlorobenzene, 1,3-	541731			D		D	25
Dichlorobenzene, ortho-	95501	9.0e-02		D		D	8
Dichlorobenzene, para-	106467		2.4e-02	B2		B2	22
Dichlorobenzidene, 3,3-	91941		4.5e-01	B2		B2	28
Dichlorodifluoromethane	75718	2.0e-01					4
Dichloroethane, 1,1-	75343	1.0e-01		C		C	22
Dichloroethane, 1,2-	107062	2.0e-02	9.1e-02	B2	9.1e-02	B2	25
Dichloroethylene, 1,1-	75354	9.0e-03	6.0e-01	C	1.2e+00	C	28
Dichloroethylene, cis-1,2-	156592	1.0e-02		D		D	18
Dichloroethylene, trans-1,2-	156605	2.0e-02					18
Dichloroethylene (mixed)	540590	9.0e-03					18
Dichloromethane	75092	6.0e-02	7.5e-03	B2		B2	20
Dichlorophenol, 2,4-	120832	3.0e-03					25
Dichloropropane, 1,2-	78875		6.8e-02	B2		B2	25
Dichloropropene, 1,3-	542756	3.0e-04	1.8e-01	B2	1.3e-01	B2	43
Dichloro-2-butene, 1,4-	764410			B2	9.3e+00	B2	18
Dichlorvos	62737	5.0e-04	2.9e-01	B2			45
Dicofol	115322		4.4e-01	C			28
Dicyclopentadiene	77736	3.0e-02					18
Dieldrin	60571	5.0e-05	1.6e+01	B2	1.6e+01	B2	50
Diethyl Phthalate	84662	8.0e-01		D		D	4

40.1513: continued

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Diethyl-p-nitrophenylphosphate	311455			D		D	25
Diflubenzuron	35367385	2.0e-02					18
Dimethoate	60515	2.0e-04					40
Dimethoxybenzidine, 3,3-	119904		1.4e-02	B2		B2	22
Dimethyl Sulfate	77781			B2		B2	28
Dimethylamine	124403						25
Dimethylaniline, 2,4-	121697	2.0e-03	7.5e-01	C		C	34
Dimethylbenzidine, 3,3-	119937		9.2e+00	B2		B2	44
Dimethylformamide, N,N-	68122	1.0e-01					8
Dimethylhydrazine, 1,1-	57147		2.6e+00	B2	3.5e+00	B2	34
Dimethylhydrazine, 1,2-	540738		3.7e+01	B1	3.7e+01	B1	44
Dimethylphenol, 2,4-	105679	2.0e-02					18
Dimethylphenol, 2,6-	576261	6.0e-04					40
Dimethylphthalate	131113	1.0e+01		D		D	4
Dinitrobenzene, m-	99650	1.0e-04		D		D	40
Dinitrobenzene, o-	528290	4.0e-04		D		D	40
Dinitrobenzene, p-	100254	4.0e-04					40
Dinitrophenol, 2,4-	51285	2.0e-03					25
Dinitrotoluene, 2,4-	121142	2.0e-03	6.8e-01	B2		B2	34
Dinitrotoluene, 2,6-	606202	1.0e-03	6.8e-01	B2		B2	34
Dinitrotoluene (mixture)	121142		6.8e-01	1			28
Dinitro-o-cresol, 4,6-	534521						25
Dinoseb	88857	1.0e-03		D		D	25
Dioxane, 1,4-	123911		1.1e-02	B2		B2	22
Diphenamid	957517	3.0e-02					18
Diphenyl	92524						25
Diphenylamine, N,N-	122394	2.5e-02					18
Diphenylhydrazine, 1,2-	122667		8.0e-01	B2	8.0e-01	B2	28
Diquat	85007	2.2e-03					25
Disulfoton	298044	4.0e-05					40
Di-n-butyl Phthalate	84742	1.0e-01		D		D	8
Endosulfan	115297	6.0e-03					25
Endothall	145733	2.0e-02					18
Endrin	72208	3.0e-04		D		D	40
Epichlorohydrin	106898	2.0e-03	9.9e-03	B2	4.2e-03	B2	30
Epoxybutane, 1,2-	106887						25
Ethanol	64175						25
Ethion	563122	5.0e-04					40

40.1513: continued

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Ethoxyethanol, 2-	110805	4.0e-01					4
Ethoxyethanol Acetate, 2-	111159	3.0e-01					4
Ethyl Acetate	141786	9.0e-01					4
Ethyl Acrylate	140885		4.8e-02	B2		B2	25
Ethyl Chloride	75003						25
Ethyl Ether	60297	2.0e-01					4
Ethyl Methacrylate	97632	9.0e-02					8
Ethyl p-Nitrophenyl Phenylphos	2104645	1.0e-05					40
Ethylbenzene	100414	1.0e-01		D		D	8
Ethylene Cyanohydrin		3.0e-01					4
Ethylene Dibromide	106934	2.0e-05	8.5e+01	B2	7.6e-01	B2	50
Ethylene Glycol Monobutyl Ether	111762						25
Ethylene Oxide	75218		1.0e+00	B1	3.5e-01	B1	34
Ethylene Thiourea	96457	8.0e-05	1.1e-01	B2		B2	43
Ethylenediamine	107153	2.0e-02		D		D	18
Fenamiphos	22224926	2.5e-04					40
Fluoranthene	206440	4.0e-02		D		D	18
Fluorene	86737	4.0e-02					18
Fluridone	59756604	8.0e-02					8
Folpet	133073	1.0e-01	3.5e-03	B2		B2	20
Fonofos	944229	2.0e-03					25
Formaldehyde	50000	2.0e-01	3.0e-02	B1	4.5e-02	B1	20
Furan	110009	1.0e-03					25
Furfural	98011	3.0e-03					25
Glycidaldehyde	765344	4.0e-04		B2		B2	45
Heptachlor	76448	5.0e-04	4.5e+00	B2	4.5e+00	B2	46
Heptachlor Epoxide	1024573	1.3e-05	9.1e+00	B2	9.1e+00	B2	50
Heptane, n-	142825			D		D	25
Hexachlorobenzene	118741	8.0e-04	1.6e+00	B2	1.6e+00	B2	46
Hexachlorobutadiene	87683	2.0e-03	7.8e-02	C	7.8e-02	C	32
Hexachlorocyclohexane, alpha-	319846		6.3e+00	B2	6.3e+00	B2	44
Hexachlorocyclohexane, beta-	319857		1.8e+00	C	1.8e+00	C	34
Hexachlorocyclohexane, delta-	319868			D		D	25
Hexachlorocyclohexane, gamma-	58899	3.0e-04	1.3e+00	B2-C		B2-C	46
Hexachlorocyclopentadiene	77474	7.0e-03		D		D	25
Hexachloroethane	67721	1.0e-03	1.4e-02	C	1.4e-02	C	30
Hexachloropentadiene	77474	7.0e-03					25
Hexachlorophene	70304	3.0e-04					40
Hexane, n-	110543	6.0e-02					8

40.1513: continued

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Hexanone, 2-	591786						25
Hexazinone	51235042	3.3e-02					18
Hydrazine	302012		3.0e+00	B2	1.7e+01	B2	34
Hydrogen Chloride	7647010						25
Hydrogen Cyanide	74908	2.0e-02					18
Hydrogen Fluoride	7664393						25
Hydrogen Sulfide	7783064	3.0e-03					25
Isoamyl Acetate	123922						25
Isobutyl Acetate	110190						25
Isobutyl Alcohol	78831	3.0e-01					4
Isophorone	78591	2.0e-01	9.5e-04	C		C	18
Isopropyl Acetate	108214						25
Lead	7439921	7.5e-04		B2		B2	45
Lead Alkyls		1.0e-07					40
Lead Subacetate	1335326						25
Linuron	330552	2.0e-03		C		C	32
Malathion	121755	2.0e-02					18
Maleic Anhydride	108316	1.0e-01					8
Maleic Hydrazide	123331	5.0e-01					4
Malononitrile	109773	2.0e-05					40
Maneb	12427382	5.0e-03					25
MCPA	94746	5.0e-04					40
MCPB	94815	1.0e-02					18
Mephosfolan	950107	9.0e-05					40
Mercury, alkyl							25
Mercury (Inorganic)	7439976	3.0e-04		D		D	40
Merphos	150505	3.0e-05					40
Merphos Oxide	78488	3.0e-05					40
Methacrylonitrile	126987	1.0e-04					40
Methanol	67561	5.0e-01					4
Methomyl	16752775	2.5e-02					18
Methoxychlor	72435	5.0e-03		D		D	25
Methoxyethanol	109864	1.0e-03					25
Methoxyethanol Acetate, 2-	110496	2.0e-03					25
Methyl Acetate	79209	1.0					4
Methyl Acrylate	96333	3.0e-02		D		D	18
Methyl Bromide	74839	1.4e-03					25
Methyl Chloride	74873		1.3e-02	C	6.3e-03	C	22
Methyl Ethyl Ketone	78933	6.0e-01		D		D	4

40.1513: continued

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Methyl Isobutyl Ketone	108101	8.0e-02					8
Methyl Isocyanate	624839						25
Methyl Mercury	22967926	1.0e-04		C		C	43
Methyl Methacrylate	80626	1.4e-00					4
Methyl Parathion	298000	2.5e-04					40
Methyl Styrene	25013154	6.0e-03					25
Methyl Styrene, alpha	98839	7.0e-02					8
Methylaniline, 2-	100618		2.4e-01	B2		B2	28
Methylene Bromide	74953	1.0e-02					18
Methylhydrazine	60344		1.1e+00	NA		NA	34
Methyl-tert-Butyl Ether	1634044	1.0e-01					8
Mirex	2385855	2.0e-04	1.8e+00	B2		B2	46
Naphthalene	91203	2.0e-02		C		C	25
Nickel	7440020	2.0e-02		ND	8.4e-01	A	18
Nickel Carbonyl	13463393			B2		B2	28
Nitrobenzene	98953	5.0e-04		D		D	40
Nitropropane, 2-	79469		9.5e+00	B2	9.4e+00	B2	44
Nitrotoluene, m-	99081	1.0e-02					18
Nitrotoluene, o-	88722	1.0e-02					18
Nitrotoluene, p-	99990	1.0e-02					18
N-Nitrosodiethanolamine	1116547		2.8e+00	B2		B2	34
N-Nitrosodiethylamine	55185		1.5e+02	B2	1.5e+02	B2	44
N-Nitrosodimethylamine	62759		5.1e+01	B2	5.1e+01	B2	44
N-Nitrosodiphenylamine	86306		4.9e-03	B2		B2	22
N-Nitrosodi-n-butylamine	924163		5.4e+00	B2	5.4e+00	B2	34
N-Nitrosodi-n-propylamine	621647		7.0e+00	B2		B2	44
N-Nitrosomethylvinylamine	4549400			B2		B2	28
Octamethylpyrophosphoramidate	152169	2.0e-03					25
Oxamyl	23135220	2.5e-02					18
Parathion	56382	6.0e-03		C		C	32
PCBs	1336363	2.0e-05	7.7e+00	B2		B2	50
Pentachlorobenzene	608935	8.0e-04		D		D	40
Pentachloronitrobenzene	82688	3.0e-03	2.6e-01	C		C	34
Pentachlorophenol	87865	3.0e-02	1.2e-01	B2		B2	25
Permethrin	52645531	5.0e-02					8
Phenanthrene	85018			D		D	25
Phenol	108952	6.0e-01		D		D	4
Phosgene	75445						25

40.1513: continued

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD mg/kg/d	Oral Cancer Slope Factor 1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor 1/(mg/kg/d)	CLASS	HUMAN TOXICITY VALUE
Phosmet	732116	2.0e-02					18
Phosphine	7803512	3.0e-04		D		D	40
Phosphoric Acid	7664382						25
Phosphorus, white	7723140	2.0e-05		D		D	40
Phthalic Anhydride	85449	2.0					4
Picloram	1918021	7.0e-02					8
Polyaromatic Hydrocarbons (TOTAL)							25
Prometon	1610180	1.5e-02					18
Prometryn	7287196	4.0e-03					25
Pronamide	23950585	7.5e-02					8
Propyl Alcohol	71238						25
Propylene Glycol Monomethyl Et	1569024	7.0e-01					4
Propylene Oxide	75569		2.4e-01	B2	1.3e-02	B2	28
Pyrene	129000	3.0e-02		D		D	18
Pyridine	110861	1.0e-03					25
Quinoline	91225		1.2e+01	C		C	44
Quinone	106514						25
Resorcinol	108463						25
Ronnel	299843	5.0e-02					8
Rotenone	83794	4.0e-03					25
Selenious Acid	7783008	5.0e-03		D		D	25
Selenium	7782492	5.0e-03		D		D	25
Selenium Sulfide	7488546			B2		B2	28
Silver	7440224	5.0e-03		D		D	25
Simazine	122349	5.0e-03	1.2e-01	C		C	32
Sodium Cyanide	143339	4.0e-02					18
Styrene	100425	2.0e-01	3.0e-02	B2	2.0e-03	B2	20
Sulfuric Acid	7664939						25
TCDD, 2,3,7,8-	1746016		1.5e+05	B2	1.5e+05	B2	44
Tebuthiuron	34014181	7.0e-02					8
Terbufos	13071799	2.5e-05					40
Terbutryn	886500	1.0e-03					25
Tetrachloroethane, 1,1,1,2-	630206	3.0e-02	2.6e-02	C	2.6e-02	C	22
Tetrachloroethane, 1,1,2,2-	79345		2.0e-01	C	2.0e-01	C	28
Tetrachloroethylene	127184	1.0e-02	5.1e-02	B2		B2	25
Tetrachlorophenol, 2,3,4,6-	58902	3.0e-02					18
Tetraethyl Lead	78002	7.0e-07					40
Tetrahydrofuran	109999	1.8e-01					4

40.1513: continued

40.1513(2) Human Health-Based Toxicity Values and Scores							
OHM	CAS Number	Chronic Oral RfD  mg/kg/d	Oral Cancer Slope Factor  1/(mg/kg/d)	CLASS	Inhalation Cancer Slope Factor  1/(mg/kg/d)	CLASS	HUMAN TOXICIT Y VALUE
Thallic Oxide	1314325	7.0e-05		D		D	40
Thallium	7440280	7.0e-05					40
Thallium Acetate	563688	9.0e-05		D		D	40
Thallium Carbonate	6533739	8.0e-05		D		D	40
Thallium Chloride	7791120	8.0e-05		D		D	40
Thallium Nitrate	10102451	9.0e-05		D		D	40
Thallium Selenide	12039520	9.0e-05		D		D	40
Thallium Sulfate	7446186	8.0e-05		D		D	40
Thiofanox	39196184	3.0e-04					40
Thiram	137268	5.0e-03					25
Toluene	108883	2.0e-01		D		D	4
Toluene Diisocyanate	584849						25
Toluenediamine, 2,4-	95807		3.2e+00	B2		B2	34
Toluene-2,6-diamine	823405	2.0e-01					4
Toluidine, o-	95534		2.4e-01	B2		B2	28
Toluidine, p-	106490		1.9e-01	C		C	25
Toxaphene	8001352		1.1e+00	B2	1.1e+00	B2	34
TP, 2,4,5-	93721	8.0e-03		D		D	18
Trichlorobenzene, 1,2,4-	120821	1.0e-02		D		D	18
Trichloroethane, 1,1,1-	71556	9.0e-02		D		D	8
Trichloroethane, 1,1,2-	79005	4.0e-03	5.7e-02	C	5.7e-02	C	32
Trichloroethylene	79016	2.0e-03	1.1e-02	B2	1.7e-02	B2	30
Trichlorofluoromethane	75694	3.0e-01					4
Trichlorophenol, 2,4,5-	95954	1.0e-01					8
Trichlorophenol, 2,4,6-	88062		1.1e-02	B2	1.0e-02	B2	22
Trichloropropane, 1,2,3-	96184	6.0e-03	7.0e+00	B2		B2	46
Triethylamine	121448						25
Trifluralin	1582098	7.5e-03	7.7e-03	C		C	30
Trimethyl Phosphate	121459		3.7e-02	B2		B2	25
Trinitrobenzene, 1,3,5-	99354	3.0e-02					18
Vanadium	7440622	7.0e-03					25
Vanadium Pentoxide	1314621	9.0e-03					18
Vanadyl Sulfate	27774136	2.0e-02					18
Vinyl Acetate	108054	1.0					4
Vinyl Chloride	75014	1.0e-03	1.9e+00	A	3.0e-01	A	38
Xylenes	1330207	2.0		D		D	4
Zinc	7440666	3.0e-01		D		D	4
Zineb	12122677	5.0e-02					8

(PAGES 1779 AND 1780 ARE RESERVED FOR FUTURE USE.)



40.1513(3) Human Health-Based Toxicity Value Matrix

(a) Human Health-Based Toxicity Value Matrix

HUMAN HEALTH-BASED TOXICITY VALUE MATRIX					
CANCER SLOPE VALUE (CSV) in (mg/kg/day) <sup>-1</sup>  or  CARCINOGENIC CLASS	REFERENCE DOSE (RfD) in (mg/kg/day)				
	≤ 0.0009	0.0009 < x ≤ 0.0075	0.0075 < x ≤ 0.04 (or No RfD)	0.04 < x ≤ 0.15	> 0.15
≥ 6	50	46	44	42	40
0.9 ≤ x < 6 (or Class A with no CSV)	46	38	34	32	30
0.2 ≤ x < 0.9 (or Class B1 & B2 with no CSV)	45	34	28	25	22
0.03 ≤ x < 0.2 (or Class C with no CSV)	43	32	25	22	20
< 0.03	41	30	22	20	18
Class D or (No Class and CSV)	40	25	18 (*)	8	4
Class E	40	25	17	7	0

(*) DEFAULT	When there is no RfD, no CSV and no Carcinogenic Class, assign a Value of 25.
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(b) Defaults

In the absence of a U.S. EPA derived Reference Dose (RfD) from *IRIS* or *HEAST* but when a Carcinogenic Slope Value (CSV) is available, the scorer shall either (1) assign a Human Health-Based Toxicity Value using the RfD default categories indicated in the matrix, *or* (2) identify and document an allowable daily intake which is developed in a manner consistent with the U.S. EPA methodology, and assign a Toxicity Value accordingly.

In the absence of a U.S. EPA derived CSV or carcinogenic group classification from *IRIS*, *HEAST* or another similar database, but when a RfD is available, the scorer shall assign a Toxicity Value using the Class D default category indicated in the matrix.

In the absence of an RfD, CSV and carcinogenic group classification, the scorer shall (1) assign a default Toxicity Value of 25, or (2) identify and document toxicity information analogous to a RfD or CSV and assign a Toxicity Value accordingly.

**For radionuclides, no Human Health-Based Toxicity Value has been established. Radionuclides present in quantities greater than their federal Reportable Quantity (40 CFR Part 302.4, Appendix B) where the quantity is known or in concentrations greater than background where the quantity is not known shall be assigned an *OHM Toxicity Score* equal to 50. This score shall be entered directly in Worksheet III.A.1..**

40.1514(1) Users shall use the Mobility and Persistence Scores found in the following pages. If a OHM is not found in 310 CMR 40.1514(2) - Organic Compounds or 310 CMR 40.1514(3) - Metals, develop a Mobility and Persistence Score using 40.1514(4) - OHM Mobility and Persistence Factors.

40.1514(2) Mobility and Persistence Values and Scores: Organic OHMs



310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

1/13/95 (Effective 2/1/95)

310 CMR - 1782

10/29/99

ORGANIC OHM	MOBILITY AND PERSISTENCE VALUES AND SCORES										
	Solubility (mg/l)		Vapor Pressure (mm Hg)		K <sub>ow</sub>		Degradation Potential <sup>A</sup>		Specific Gravity (at 20E) <sup>B</sup>		TOTAL SCORE
	Value	ref. score	Value	ref. score	Value	ref. score	Value	ref. score	Value	ref. score	

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

310 CMR - 1782

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

Acenaphthene	3.4E+00 <sup>2</sup>	<sup>5</sup>	1.55E-03 <sup>1(b)</sup>	<sup>0</sup>	1.0E+04 <sup>2</sup>	<sup>5</sup>	N-P <sup>8</sup>	<sup>0</sup>	1.069 <sup>16</sup> (95E/95E)	<sup>10</sup>	<b>20</b>
Acetone	1.0E+06 <sup>*</sup>	<sup>10</sup>	2.70E+02 <sup>1(f)</sup>	<sup>10</sup>	5.8E-01 <sup>1(f)</sup>	<sup>10</sup>	N-P <sup>15</sup>	<sup>0</sup>	.791 <sup>16</sup>	<sup>0</sup>	<b>30</b>
Benzene	1.8E+03 <sup>1(a)</sup>	<sup>10</sup>	9.52E+01 <sup>1(a)</sup>	<sup>10</sup>	1.3E+02 <sup>1(a)</sup>	<sup>5</sup>	N-P <sup>7</sup>	<sup>0</sup>	.879 <sup>16</sup>	<sup>0</sup>	<b>25</b>
Benzo(a)pyrene	1.2E-03 <sup>2</sup>	<sup>0</sup>	5.60E-09 <sup>1(a)</sup>	<sup>0</sup>	1.2E+06 <sup>2</sup>	<sup>0</sup>	P <sup>8,10</sup>	<sup>10</sup>	1.35 (25E) <sup>19</sup>	<sup>10</sup>	<b>20</b>
Benzo(g,h,i)perylene	7.0E-04 <sup>2</sup>	<sup>0</sup>	1.03E-10 <sup>1(a)</sup>	<sup>0</sup>	3.2E+06 <sup>2</sup>	<sup>0</sup>	P <sup>8,10</sup>	<sup>10</sup>	NA	<sup>10</sup>	<b>20</b>
Benzoic Acid	2.7E+03 <sup>2</sup>	<sup>10</sup>	(0) <sup>c</sup>	<sup>0</sup>	7.4E+01 <sup>2</sup>	<sup>5</sup>	N-P <sup>8</sup>	<sup>0</sup>	1.316 <sup>16</sup> (28E/4E)	<sup>10</sup>	<b>25</b>
Bromodichloromethane	4.4E+03 <sup>2</sup>	<sup>10</sup>	1.5E+01	<sup>10</sup>	7.6E+01 <sup>2</sup>	<sup>5</sup>	P <sup>7</sup>	<sup>10</sup>	2.006 <sup>16</sup> (15E/4E)	<sup>10</sup>	<b>45</b>
Bromoform (Tribromomethane)	3.0E+03 <sup>1(b)</sup>	<sup>10</sup>	5.00E+00 <sup>1(b)</sup>	<sup>10</sup>	2.5E+02 <sup>1(b)</sup>	<sup>5</sup>	P <sup>7</sup>	<sup>10</sup>	2.903 (15E) <sup>16</sup>	<sup>10</sup>	<b>45</b>
Carbon Tetrachloride	7.6E+02 <sup>1(a)</sup>	<sup>5</sup>	9.00E+01 <sup>1(a)</sup>	<sup>10</sup>	4.4E+02 <sup>1(a)</sup>	<sup>5</sup>	P <sup>7</sup>	<sup>10</sup>	1.594 <sup>16</sup>	<sup>10</sup>	<b>40</b>
Chlorobenzene	4.7E+02 <sup>1(a)</sup>	<sup>5</sup>	1.17E+01 <sup>1(a)</sup>	<sup>10</sup>	6.9E+02 <sup>1(a)</sup>	<sup>5</sup>	N-P <sup>7</sup>	<sup>0</sup>	1.106 <sup>16</sup>	<sup>10</sup>	<b>30</b>
Chloroethane	5.7E+03 <sup>2</sup>	<sup>10</sup>	(34)	<sup>5</sup>	3.5E+01 <sup>2</sup>	<sup>5</sup>	N-P <sup>12</sup>	<sup>0</sup>	.903 <sup>16</sup>	<sup>0</sup>	<b>20</b>
Chloroform (Trichloromethane)	8.2E+03 <sup>1(a)</sup>	<sup>10</sup>	1.51E+02 <sup>1(a)</sup>	<sup>10</sup>	9.3E+01 <sup>1(a)</sup>	<sup>5</sup>	P <sup>7</sup>	<sup>10</sup>	1.49 (20E) <sup>17</sup>	<sup>10</sup>	<b>45</b>

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2-Chlorophenol	2.9E+04 <sup>2</sup>	10	(0.93)	0	1.5E+01 <sup>2</sup>	5	N-P <sup>7</sup>	0	1.241 <sup>16</sup> (18.2E/15E )	10	25
p-Dichlorobenzene(1,4)	7.9E+01 <sup>2</sup>	5	1.18E+00 <sup>1(b)</sup>	10	4.0E+03 <sup>2</sup>	5	P <sup>7</sup>	10	1.458 (21E) <sup>16</sup>	10	40
1,1-Dichloroethane	5.5E+03 <sup>1(a)</sup>	10	1.82E+02 <sup>1(a)</sup>	10	6.2E+01 <sup>1(a)</sup>	5	P <sup>7</sup>	10	1.176 <sup>16</sup>	10	45
1,2-Dichloroethane	8.5E+03 <sup>1(a)</sup>	10	6.40E+01 <sup>1(a)</sup>	10	3.0E+01 <sup>1(a)</sup>	5	P <sup>7</sup>	10	1.253 <sup>16</sup>	10	45
1,1-Dichloroethylene	2.3E+03 <sup>1(a)</sup>	10	6.00E+02 <sup>1(a)</sup>	10	6.9E+01 <sup>1(a)</sup>	5	P <sup>7</sup>	10	1.250 (15E) <sup>16</sup>	10	45
cis-1,2-Dichloroethylene	3.5E+03 <sup>1(a)</sup>	10	2.09E+02 <sup>1(a)</sup>	10	5.0E+00 <sup>1(a)</sup>	10	P <sup>7</sup>	10	1.27 (25E) <sup>17</sup>	10	50
trans-1,2-Dichloroethylene	6.3E+03 <sup>1(a)</sup>	10	3.24E+02 <sup>1(a)</sup>	10	3.0E+00 <sup>1(a)</sup>	10	P <sup>7</sup>	10	1.27 (25E) <sup>17</sup>	10	50
2,4-Dichlorophenoxyacetic Acid (2,4-D)	6.2E+02 <sup>2</sup>	5	4.00E-01 <sup>1(c)</sup>	5	6.5E+02 <sup>2</sup>	5	N-P <sup>8</sup>	0	1.255 <sup>20</sup>	10	25
Dimethyl Phthalate	4.3E+03 <sup>2</sup>	10	(0)	0	1.3E+02 <sup>2</sup>	5	N-P <sup>11</sup>	0	1.189 <sup>16</sup> (25E/25E)	10	25
2,6-Dinitrotoluene	1.3E+03 <sup>2</sup>	10	1.80E-02 <sup>1(b)</sup>	5	1.0E+02 <sup>2</sup>	5	P <sup>8,11</sup>	10	1.283 <sup>16</sup> (111E)	10	40
1,4-Dioxane	4.3E+05 <sup>2</sup>	10	3.99E+01 <sup>1(d)</sup>	10	1.0E+00 <sup>2</sup>	10	P <sup>14</sup>	10	1.034 <sup>16</sup>	10	50
Ethylbenzene	1.5E+02 <sup>1(a)</sup>	5	7.00E+00 <sup>1(a)</sup>	10	1.4E+03 <sup>1(a)</sup>	5	N-P <sup>7</sup>	0	.867 <sup>16</sup>	0	20
bis(2-Ethylhexyl)phthalate (DEHP)	2.9E-01 <sup>2</sup>	0	(0)	0	9.5E+03 <sup>2</sup>	5	P <sup>8,11</sup>	10	.9843 <sup>16</sup>	0	15
Fuel Oil (virgin product)											20

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Gasoline (virgin product)											<b>25</b>
Heptachlor	1.8E-01 <sup>2</sup>	<sub>0</sub>	3.00E-04 <sup>1(b)</sup>	<sub>0</sub>	2.5E+04 <sup>2</sup>	<sub>0</sub>	P <sup>8</sup>	<sub>10</sub>	1.57 <sup>1(f)</sup>	<sub>10</sub>	<b>20</b>
Hexachlorobenzene	6.0E-03 <sup>1(a)</sup>	<sub>0</sub>	1.09E-05 <sup>1(a)</sup>	<sub>0</sub>	1.7E+05 <sup>1(a)</sup>	<sub>0</sub>	P <sup>7</sup>	<sub>10</sub>	2.044 <sup>16</sup>	<sub>10</sub>	<b>20</b>
Hexachloroethane	5.0E+01 <sup>2</sup>	<sub>5</sub>	4.00E-01 <sup>1(b)</sup>	<sub>5</sub>	4.0E+04 <sup>2</sup>	<sub>0</sub>	N-P <sup>8</sup>	<sub>0</sub>	2.090 <sup>20</sup>	<sub>10</sub>	<b>20</b>
2-Hexanone	1.4E+04 <sup>2</sup>	<sub>10</sub>	(1.6)	<sub>0</sub>	2.5E+01 <sup>5</sup>	<sub>5</sub>	N-P <sup>11</sup>	<sub>0</sub>	.815 <sup>16</sup> (18E/4E)	<sub>0</sub>	<b>15</b>
Isophorone	1.2E+04 <sup>2</sup>	<sub>10</sub>	(0.3)	<sub>0</sub>	5.0E+01 <sup>2</sup>	<sub>5</sub>	N-P <sup>11</sup>	<sub>0</sub>	.921 (25E) <sup>17</sup>	<sub>0</sub>	<b>15</b>
Methylene Chloride	2.0E+04 <sup>1(b)</sup>	<sub>10</sub>	4.31E+03 <sup>1(d)</sup>	<sub>10</sub>	1.9E+01 <sup>1(b)</sup>	<sub>5</sub>	N-P <sup>7</sup>	<sub>0</sub>	1.366 <sup>18</sup>	<sub>10</sub>	<b>35</b>
Methyl Ethyl Ketone	2.7E+05 <sup>1(a)</sup>	<sub>10</sub>	7.75E+01 <sup>1(b)</sup>	<sub>10</sub>	1.8E+00 <sup>1(a)</sup>	<sub>10</sub>	N-P <sup>15</sup>	<sub>0</sub>	.805 <sup>16</sup>	<sub>0</sub>	<b>30</b>
Methyl Naphthalene	2.5E+01 <sup>2</sup>	<sub>5</sub>	(3.2)	<sub>0</sub>	1.3E+04 <sup>2</sup>	<sub>0</sub>	N-P <sup>7</sup>	<sub>0</sub>	1.025 <sup>16</sup> (14E/4E)	<sub>10</sub>	<b>15</b>
Methyl Tert-Butyl Ether	4.8E+00 <sup>3</sup>	<sub>5</sub>	(196)	<sub>10</sub>	NA	<sub>5</sub>	NA	<sub>0</sub>	.731 <sup>16</sup>	<sub>0</sub>	<b>20</b>
Naphthalene	3.2E+01 <sup>2</sup>	<sub>5</sub>	(20)	<sub>5</sub>	2.8E+03 <sup>2</sup>	<sub>5</sub>	N-P <sup>7</sup>	<sub>0</sub>	1.145 <sup>16</sup>	<sub>10</sub>	<b>25</b>
Nitrobenzene	1.9E+03 <sup>2</sup>	<sub>10</sub>	1.50E-01 <sup>1(d)</sup>	<sub>5</sub>	7.1E+01 <sup>2</sup>	<sub>5</sub>	N-P <sup>8</sup>	<sub>0</sub>	1.203 <sup>16</sup>	<sub>10</sub>	<b>30</b>
Pentachlorophenol	1.4E+01 <sup>1(b)</sup>	<sub>5</sub>	1.10E-04 <sup>1(b)</sup>	<sub>0</sub>	1.0E+05 <sup>1(b)</sup>	<sub>0</sub>	P <sup>7</sup>	<sub>10</sub>	1.978 (22E) <sup>16</sup>	<sub>10</sub>	<b>25</b>
Phenol	9.3E+04 <sup>1(a)</sup>	<sub>10</sub>	3.41E-01 <sup>1(a)</sup>	<sub>5</sub>	2.9E+01 <sup>1(a)</sup>	<sub>5</sub>	N-P <sup>7</sup>	<sub>0</sub>	1.071 <sup>16</sup> (25E/4E)	<sub>10</sub>	<b>30</b>
PCBs	1.2E-02 <sup>2</sup>	<sub>0</sub>	7.70E-05 <sup>1(b)</sup>	<sub>0</sub>	1.1E+06 <sup>2</sup>	<sub>0</sub>	P <sup>8,9</sup>	<sub>10</sub>	1.5 (25E) <sup>18</sup>	<sub>10</sub>	<b>20</b>
1,1,2,2-Tetrachloroethane	2.9E+03 <sup>2</sup>	<sub>10</sub>	5.00E+00 <sup>1(a)</sup>	<sub>10</sub>	2.5E+02 <sup>2</sup>	<sub>5</sub>	P <sup>8,11</sup>	<sub>10</sub>	1.600 <sup>16</sup>	<sub>10</sub>	<b>45</b>

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Tetrachloroethylene	1.5E+02 <sup>1(a)</sup>	5	1.8E+01 <sup>1(a)</sup>	10	4.0E+02 <sup>1(a)</sup>	5	P <sup>7</sup>	10	1.631 <sup>16</sup> (15E/4E)	10	40
Tetrahydrofuran	3.0E-01 <sup>4</sup>	0	(2)	0	6.6E+00 <sup>6</sup>	10	N-P <sup>13</sup>	0	.888 <sup>16</sup> (21E/4E)	0	10
Toluene	5.3E+02 <sup>1(a)</sup>	5	2.81E+01 <sup>1(a)</sup>	10	5.4E+02 <sup>1(a)</sup>	5	N-P <sup>7</sup>	0	.866 <sup>16</sup>	0	20
1,2,4-Trichlorobenzene	3.0E+01 <sup>1(a)</sup>	5	2.90E-01 <sup>1(b)</sup>	5	2.0E+04 <sup>2</sup>	0	P <sup>8</sup>	10	1.446 (26E) <sup>16</sup>	10	30
1,1,1-Trichloroethane	1.5E+03 <sup>1(a)</sup>	10	1.23E+02 <sup>1(a)</sup>	10	3.2E+02 <sup>1(b)</sup>	5	P <sup>7</sup>	10	1.346 <sup>16</sup> (15E/4E)	10	45
1,1,2-Trichloroethane	4.5E+03 <sup>1(a)</sup>	10	3.00E+01 <sup>1(a)</sup>	10	3.0E+02 <sup>1(a)</sup>	5	P <sup>7</sup>	10	1.441 <sup>16</sup> (25.5E/4E)	10	45
Trichloroethylene (TCE)	1.1E+03 <sup>1(a)</sup>	10	5.79E+01 <sup>1(a)</sup>	10	2.4E+02 <sup>1(a)</sup>	5	P <sup>7</sup>	10	1.466 <sup>16</sup> (20E/20E)	10	45
2,4,6-Trichlorophenol	8.0E+02 <sup>2</sup>	5	1.20E-02 <sup>1(a)</sup>	5	7.4E+03 <sup>2</sup>	5	N-P <sup>8</sup>	0	1.490 <sup>16</sup> (75E/4E)	10	25
Vinyl Chloride	2.7E+0 <sup>1(a)</sup>	5	2.66E+03 <sup>1(a)</sup>	10	2.4E+01 <sup>1(a)</sup>	5	P <sup>7</sup>	10	.908 <sup>16</sup> (25E/25E)	0	30
Xylenes	2.0E+02 <sup>1(c)</sup>	5	1.00E+01 <sup>1(c)</sup>	10	8.9E+02 <sup>1(c)</sup>	5	N-P <sup>7</sup>	0	.880 <sup>16</sup>	0	20

## NOTES

<sup>A</sup> Degradation Potential: N-P = Non-Persistent; P = Persistent. Score for "N-P" = 0; "P" = 10.

<sup>B</sup> Specific gravity of compound at 20EC referred to water at 4EC (20E/4E) unless otherwise specified.

<sup>C</sup> Numbers in parentheses are Henry's Law Constant in atm m<sup>3</sup> water/m<sup>3</sup> air.



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- <sup>13</sup> Volskay V.T., Grady C.P., "Toxicity of Selected RCRA Compounds to Activated Sludge Microorganisms," Journal WPCF, Vol 60, No. 10, 1850, 1988.
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- <sup>15</sup> Nyer D., Boettcher G., and Morello B., "Using the Properties of Organic Compounds to Help Design a Treatment System," Groundwater Monitoring Review, Fall, 1991, pp. 81-86.
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- <sup>19</sup> US Public Health Service, Agency for Toxic Substances and Disease Registry, "Draft Toxicological Profile for Benzo(a)pyrene," October 1987.
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## 40.1514(3) Metals

METAL	Mobility	Score
Arsenic - $\text{H}_2\text{AsO}_4^-$	Slowly mobile	15
Asbestos - > 2:	Immobile	5
Asbestos - < 2:	Slowly mobile	15
Beryllium - $\text{Be}^{++}$	Moderately mobile	25
Cadmium - $\text{Cd}^{++}$	Slowly mobile	15
Chromium - $\text{Cr}^{+++}$ or $\text{Cr}^{+6}$	Slowly mobile	15
Copper - $\text{Cu}^{++}$	Moderately mobile	25
Cyanide - $\text{CN}^-$	Relatively mobile	35
Lead - $\text{Pb}^{++}$	Moderately mobile	25
Mercury - $\text{Hg}^{++}$	Slowly mobile	15
Selenium - $\text{HSeO}_4^-$ & $\text{SeO}_3^{--}$	Relatively mobile	35
Zinc - $\text{Zn}^{++}$	Moderately mobile	25

<sup>1</sup> Fuller, "Movement of Selected Metals, Asbestos, and Cyanide in Soils: Application to Waste Disposal Problems," EPA-600/2-77-020, April 1977.

40.1514(4) OHM Mobility and Persistence Factors for Other Organic Compounds

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OHM MOBILITY AND PERSISTENCE FACTORS			
Organic Compounds			
FACTOR	RANGE and VALUE		
	LOW (Value)	MEDIUM (Value)	HIGH (Value)
Solubility (mg/L)	< 1 (0)	1 - 1,000 (5)	> 1,000 (10)
Vapor Pressure (mm Hg)	< 0.01 (0)	0.01 - 1 (5)	> 1 (10)
K <sub>ow</sub>	> 10,000 (0)	10 - 10,000 (5)	< 10 (10)
Degradation Potential	Non-Persistent (NP) (0)		Persistent (P) (10)
Specific Gravity (20°C)	< 1 (0)		> 1 (10)
Radionuclides			
Radionuclides present in quantities greater than their federal Reportable Quantity ( 40 CFR Part 302.4, Appendix B) where the quantity is known or in concentrations greater than background where the quantity is not known shall be assigned a <i>Mobility and Persistence Score</i> equal to 40.			

40.1515 Soil Permeability Criteria

SOIL PERMEABILITY	
VALUES	CRITERIA
LOW	Permeability: < 10E-7 cm/s
	Soil or Bedrock Type: clay; shale; compact till; unfractured metamorphic and igneous rocks.
MEDIUM	Permeability: 10E-7 to < 10E-3 cm/s
	Soil or Bedrock Type: silt, fine sand and silty sand; loess; silty clays; clay loams, silty loams, sandy loams, and loamy sands; less to moderately permeable limestones, dolomites, and sandstone; moderately permeable to coarse till; moderately fractured igneous and metamorphic rocks. Fill is considered moderately permeable unless disposal site-specific condition indicate otherwise.
HIGH	Permeability: ~ 10E-3 cm/s
	Soil or Bedrock Type: gravel, sand; highly fractured igneous and metamorphic rocks; permeable basalt and lavas; karst limestone and dolomite.

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40.1516 Environmental Toxicity Values

(1) Environmental Toxicity Values

40.1516(1) ENVIRONMENTAL TOXICITY VALUES (for OHM with Ambient Water Quality Criteria)					
OHM	AMBIENT WATER QUALITY CRITERIA				
	FRESH WATER ACUTE : g/l	FRESH WATER CHRONIC : g/l	MARINE ACUTE : g/l	MARINE CHRONIC : g/l	TOXICITY VALUE
Acenaphthene	1700	520	970	710	20
Acrolein	68	21	55		30
Acrylonitrile	7550	2600			10
Aldrin	3		1.3		40
Antimony	88	30	1500	500	30
Arsenics	850		2319		30
Benzene	5300		5100	700	10
Benzidine	2500				20
Beryllium	130	5.3			30
Benzene Hexachloride	100		0.34		30
Cadmium	3.9	1.1	43	9.3	40
Carbon Tetrachloride	35200		50000		10
Chlordane	2.4	0.0043	0.09	0.004	50
Chloroform	28900	1240			10
Chlorophenol, 2-	4380				20
Chlorophenol, 4-			29700		10
Chlorpyrifos	0.083	0.041	0.011	0.0056	40
Chromium III	1700	210	10300		20
Chromium VI	16	11	1100	50	30
Copper	18	12	2.9		30
Cyanide	22	5.2	1		30
DDT	1.1	0.001	0.13	0.001	50
DDE	1050		14		30
Demeton		0.1		0.1	40
Di-2-Ethylhexyl Phthalate	400	360	400	360	20
Dichlorobenzenes	1120	763	1970		10
Dichloroethane, 1,2-	118000	20000	113000		10
Dichloroethylenes	11600		224000		10
Dichlorophenol, 2,4-	2020	365			20
Dichloropropane	23000	5700	10300	3040	10
Dichloropropene	6060	244	790		20
Dieldrin	2.5	0.0019	0.71	0.0019	50
Dimethylphenol, 2,4-	2120				20
Dinitrotoluene			590	370	10
Dinitrotoluene, 2,4-	330	230			20
Diphenylhydrazine, 1,2-	270				30
Endosulfans	0.22	0.056	0.034	0.0087	40

40.1516(1)	<b>ENVIRONMENTAL TOXICITY VALUES</b> <i>(for OHM with Ambient Water Quality Criteria)</i>				
OHM	AMBIENT WATER QUALITY CRITERIA				
	FRESH WATER ACUTE : g/l	FRESH WATER CHRONIC : g/l	MARINE ACUTE : g/l	MARINE CHRONIC : g/l	TOXICITY VALUE
Endrin	0.18	0.0023	0.037	0.0023	50
Ethylbenzene	32000		430		10
Fluoranthene	3980		40	16	20
Guthion		0.01		0.01	50
Heptachlor	0.52	0.0038	0.053	0.0036	50
Heptachlor Epoxide	0.52	0.0038	0.053	0.0036	50
Hexachlorobenzene	6	3.68			30
Hexachlorobutadiene	90	9.3	32		30
Hexachlorocyclohexane, gamma-	2	0.08	0.16		40
Hexachlorocyclopentadiene	7	5.2	7		30
Hexachloroethane	980	540	940		20
Hydrogen Sulfide		2		2	40
Isophorone	117000		12900		10
Lead	83	3.2	220	8.5	30
Lindane	2	0.08	0.16		40
Malathion		0.1		0.1	40
Mercury	2.4	0.012	2.1	0.025	50
Methoxychlor		0.03		0.03	50
Methyl Mercury	2.4	0.012	2.1	0.025	40
Mirex		0.001		0.001	50
Naphthalene	2300	620	2350		20
Nickel	1400	160	75	8.3	20
Nitrobenzene	27000		6680		10
Nitrophenols	230	150	4850		20
Parathion	0.065	0.013			50
PCBs	2	0.014	10	0.03	50
Pentachloroethane	7240	1100	390	281	10
Pentachlorophenol	20	13	13	7.9	30
Phenanthrene	30	6.3	7.7	4.6	30
Phenol	10200	2560	5800		10
Phosphorus (elemental)				0.1	40
Phthalate esters	940	3	2944	3.4	30
Selenium	20	5	300	71	30

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40.1516(1)	<b>ENVIRONMENTAL TOXICITY VALUES</b> <i>(for OHM with Ambient Water Quality Criteria)</i>				
OHM	AMBIENT WATER QUALITY CRITERIA				
	FRESH WATER ACUTE : g/l	FRESH WATER CHRONIC : g/l	MARINE ACUTE : g/l	MARINE CHRONIC : g/l	TOXICITY VALUE
Silver	0.92	0.12	7.2	0.92	40
TCDD, 2,3,7,8-	0.01	0.00001			50
TDE (DDT Metabolite)	0.6		3.6		50
Tetrachloroethane, 1,1,2,2-		2400	9020		10
Tetrachloroethanes	9320				10
Tetrachloroethylene	5280	840	10200	450	10
Tetrachlorophenol, 2,3,5,6-			440		30

40.1516(1)	<b>ENVIRONMENTAL TOXICITY VALUES</b> <i>(for OHM with Ambient Water Quality Criteria)</i>				
OHM	AMBIENT WATER QUALITY CRITERIA				
	FRESH WATER ACUTE : g/l	FRESH WATER CHRONIC : g/l	MARINE ACUTE : g/l	MARINE CHRONIC : g/l	TOXICITY VALUE
Thallium	1400	40	2130		30
Toluene	17500		6300	5000	10
Toxaphene	0.73	0.0002	0.21	0.0002	50
Trichloroethane, 1,1,1-			31200		10
Trichloroethane, 1,1,2-		9400			10
Trichloroethanes	18000				10
Trichloroethylene	45000	21900	2000		10
Trichlorophenol, 2,4,5-	100	63	240	11	20
Trichlorophenol, 2,4,6-		970			10
Zinc	120	110	95	86	20

ENVIRONMENTAL TOXICITY DEFAULT VALUES	
Default values shall be assigned for all OHMs not listed in 310 CMR 40.1516(1) according to the following criteria.	
CHEMICAL CLASS	ENVIRONMENTAL TOXICITY VALUE
Alcohol	20
Aldehydes	30
Alkanes	20
Alkenes	30
Amines	20
Aromatics	30
Esters	40
Ethers	20
Halogenated Hydrocarbons (except Ethers)	30
Ketones	30
Organic Acids	40
Pesticides	40
Metals	20

**NOTE:** Use the HIGHEST Default Value applicable to the OHM under consideration.

Example:     A halogenated pesticide would be assigned a default value of 40.  
              A halogenated alkane would be assigned a default value of 30.

**NOTE:** For radionuclides, no Environmental Toxicity Value has been established. Radionuclides present in quantities greater than their federal Reportable Quantity ( 40 CFR Part 302.4, Appendix B) where the quantity is known or in concentrations greater than background where the quantity is not known shall be assigned an *Environmental Toxicity Score* equal to 30. This score shall be entered directly in Worksheet V.B.1..



40.1516(3) Environmental Toxicity Value Matrix

40.1516(3)	ENVIRONMENTAL TOXICITY VALUE MATRIX				
AMBIENT WATER QUALITY CRITERIA (AWQC)	ENVIRONMENTAL TOXICITY VALUE RANGES In : g/l				
Fresh Water Chronic	< 0.03	0.03 , X < 2.8	2.8 , X < 70	70 , X < 620	> 620
Marine Chronic	< 0.005	0.005 , X < 0.3	0.3 , X < 8	8 , X < 200	> 200
Fresh Water Acute	< 3	3 , X < 85	85 , X < 1,200	1,200 , X < 8,000	> 8,000
Marine Acute	< 1.1	1.1 , X < 33	33 , X < 490	490 , X < 27,000	> 27,000
ENVIRONMENTAL TOXICITY VALUE	50	40	30	20	10