

Demystifying the Audit Process

-or-

Knowing what to expect when it happens to your submittal

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Goals for Tonight

- Further Your Understanding of the Audit Process and Potential Outcomes
 - Why do we audit?
 - How are sites selected for audit?
 - What are the different types of audits?
 - What is the review process?
 - What submittals are subject to audit?
 - How likely is your site to be audited?
 - If selected for audit, who should attend?



Why We Audit

The Four C's

- Compliance
- Consistency
- Credibility
- Commitment

Why We Audit

- Required by Statute – M.G.L. c. 21E § 3A(o)

“...In each year the department shall, at a minimum, audit **twenty percent** of all sites for which annual compliance assurance fees are required to be paid pursuant to section 3B.” ...

“...In each year the department shall, at a minimum, audit ***a statistically significant number, as determined by the department***, of all sites for which annual compliance assurance fees are required to be paid under section 3B.” ...



Audit Selection

- Regional Control
- Who and what gets selected?
 - Every site and Every submittal
 - Based on regulations and guidance in place at time of submittal
- Audit Initiation – 310 CMR 40.1130
 - Requires reasonable notice unless review of documents
- Timeframes – 310 CMR 40.1110
 - Random – 2 Years
 - Targeted – 5 Years
 - AULs – no time limit



Audit Activities

310 CMR 40.1120

- Examine documents within Department records
- Request clarifications or supporting documents
- Request appearance at Department offices
- Enter and inspect site
- Collect samples?

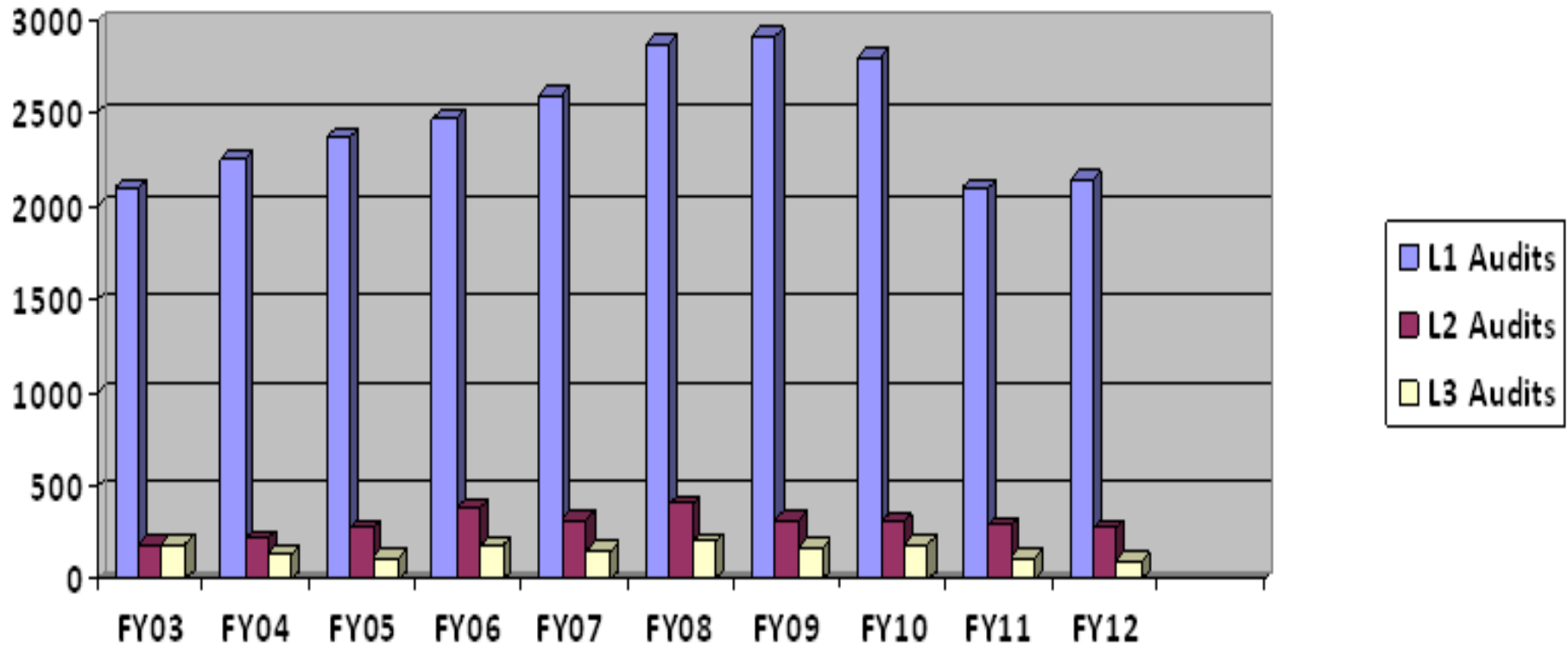


Audit Types

- MEPA¹ review and TechLaw² Report resulted in significant modifications to audit program in 2000
 - Level 1 – Screening Level
 - Level 2 – Site Inspection/Recent submittal
 - Level 3 – Comprehensive
1. *Final Generic Environmental Impact Report*, February 16, 1999
 2. TechLaw Management Consultants, *21E Audit Project, Final 21E Audit Evaluation Report*, July 15, 1998.



Comparison of Types of Audits Done



Level 1 Audits

- **All** RAOs
 - Within 6 months of receipt
- May include PRAs, CRAs, AULs, and DPS
- No notification or site inspection
- Use DEP checklists – available at:
<http://www.mass.gov/eea/agencies/massdep/cleaup/sites/technical-screening-audit-forms-checklists.html>
- Completed within a few hours



Technical Screening Checklists

DEP BWSC RAO LEVEL 1 AUDIT FORM

Disclaimer: This checklist is for use by DEP in reviewing Response Action Outcome (RAO) Statements, and may not be relied upon for any other purposes. This checklist is not a comprehensive list of RAO requirements, which are fully set forth in MGL c. 21E and 310 CMR 40.0000. Completion of this checklist by DEP does not constitute a final agency decision, and does not create any legal rights or relieve any party of obligations that exist pursuant to applicable laws.

Lead RTN:		OHM description: (Source, Type of OHM, Media Affected)		Date RAO Rcvd: _____
SUBMITTAL TYPE		Date Screened: _____		
Class:	A B C 1 2 3 4			
Partial	Revised	AUL		
Other:		Site Use:		
Related RTNs:				
Town:		Site Name:		
Address:		LSP Name/ID:		
PRP/OP:		Consulting Firm:		
Based upon conditions at time of RAO submittal				
I. SITE CONDITIONS				
A. Air				
1. (i): Applicable GHG-2 standard exceeded @ residence/school with no soil gas/indoor air sampling				
2. (i): Site contaminants impacting indoor air				
B. Drinking Water/Groundwater				
1. (i): More than 0.5" NAPL observed in any monitoring well				
2. Site within potential drinking water source area (PDWSA)				
3. Site located within IWPA/Maped Zone II				
4. Private/Non-municipal public well(s) (i.e. TNC, NTNC) located within 500 feet of site				
5. Municipal well(s) located within 1000 feet of site				
6. (i): Private well contaminated as a result of site, still in use (no filter, no public water, etc.)				
7. (i): Public water supply contaminated as a result of site, no filters or other mitigation				
C. Contaminated Soil At a School or Residence				
1. EPC in 0-1 soil exceeds Method 1 Standard				
2. Bioaccumulating compounds (i.e. Hg, Pb, PCBs, etc.) detected less than 1 foot deep				
3. IH compounds (arsenic, cadmium, chrome VI, cyanide) detected less than 1 foot deep				
D. Environmental Concerns				
1. Site within 500 feet of surface water and/or wetlands				
2. Endangered species habitat, ACEC and/or certified vernal pool within 500 feet				
3. Confirmed contamination of surface water, sediments and/or wetlands with site contaminants				
E. Site & Area Use – Check All That Apply				
1. Industrial use or public Right of Way (no children likely to be present)				
2. Commercial (limited presence of children)				
3. School/Institution (pre-K through high school, not college/university)				
4. Residential				
F. Released OHM (Primary Contaminant Type(s))				
1. Petroleum fuel oils (e.g. #2, #4, #5, JP-4, JP-8, kerosene, lube oil, MOOP, etc.)				
2. Gasoline, waste oils, Aviation Fuel (AVGAS, Jet A, etc.)				
3. Metals, coal tar, PCBs, pesticides/herbicides, asbestos, cyanide				
4. Chlorinated solvents, perchlorate, or other organic compounds				
G. Site Complexity				
1. Co-mingled plumes (i.e., from different sources, one or more releases co-mingled)				
2. Bedrock contamination				
If no conditions currently exist, see supervisor to discuss.				

- Used to focus review and prioritize sites
 - Not Comprehensive
 - Not a Final Decision
- Site Conditions
 - Indoor air
 - Drinking water
 - Soil – Imminent Hazard
- Environmental
- Site & Area Use
- Type of OHM
- Site Hydrogeology



RAO Technical Screening Checklist

DEP BWSC RAO LEVEL 1 AUDIT FORM

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II. TECHNICAL ADEQUACY		Citation(s)	Yes	No	?	NA	Page
A. Remedial Response Actions:							
1. Documentation (BOL, HMM, etc.) of removal/treatment of contaminated soil was provided		40.0030	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Remediation waste properly managed (Air [95%], GW [NPDES], SW [NPDES])		40.0031-40.0049	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B. Source/Extent Investigations:							
1. History of OHM use/storage/disposal at the site included		40.0405(1), 40.0835(4)(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Potential source(s) identified, characterized, or abated (septic leach field, floor drain, AST, etc.)		40.0923(2), 40.1003(5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. All migration pathways evaluated (soil, groundwater, surface water, air, sediment, food)		40.0904(2)(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Extent of contamination defined in all media (including downgradient)		40.0904(2)(a), 40.1003(5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Potential or actual OHM analyzed for and/or evaluated (metals, VPH, VOCs, etc.)		40.0904(5)(a), 40.0926(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Proper sample collection technique/preservation/holding time/surgegate recovery, etc.		40.0117(2-3), 40.1058(1)(b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C. Risk Characterization:							
1. Correct risk characterization method used (relative to indoor air, surface water, sediment, etc.)		40.0941, 40.0942	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Background identified or characterized		40.0904(2)(b), 40.1020	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. All receptors accounted for (human, environmental) or AUL applied		40.0925-40.0927	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Site activities and uses identified (current, future, any limitations that were assumed)		40.0923	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Exposure points identified (GW & soil for all RC Methods, other media for Methods 2 & 3)		40.0924	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. All exposure pathways identified and evaluated (inhalation, ingestion, dermal, etc.)		40.0925	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Hot Spot(s) addressed, identified (as Hot Spot) and not added in to other EPCs		40.0924(4), 40.0925(5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. EPC calculation(s)/equations provided (including spatial and/or temporal, Hot Spots, etc.)		40.0926	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. EPC properly calculated (maximum concentration, 75%10th, upper confidence limit)		40.0926(3)(a),(b),(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Soil/groundwater categories properly identified		40.0930	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Applicable soil and/or GW standards not exceeded (Method 1 or 2) or AUL applied		40.0973(7), 40.0986(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Characterization of Risk to Safety is included (all methods)		40.0980	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. Method 3 Public Welfare Risk Characterization is included		40.0994	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14. Method 3 Environmental Risk Characterization – Stage 1 or 2 was completed, if applicable		40.0995	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15. Method 3 Human Health, Non-Cancer Risks < HI of 1, ELCR < than 1x10 ⁻⁶		40.0993(6),(7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- Documentation of remediation waste management
- Source/Extent
- Risk Characterization



RAO Technical Screening Checklist

DEP BWSO RAO LEVEL 1 AUDIT FORM

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III. Response Action Outcome Statement (RAO):		Yes	No	?	NA	Page
1. Correct RAO Class was selected	40.1056 – 40.1059	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. RAO boundaries delineated and referenced to permanent landmarks or surveyed boundaries	40.1003(4), 40.1056(2)(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Relationship of this RAO to other RAOs for the property has been defined	40.1056(1)(d)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Data Usability Assessment (scien. valid & defensible, precise, accurate, complete) is included	40.1056(1)(j), 40.1056(2)(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Data Representativeness Evaluation (adequate spatial and temporal data) is included	40.1056(2)(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A. CLASS A – Permanent Solutions:		Yes	No	?	NA	Page
1. A background feasibility evaluation is included	40.1020(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. A Permanent Solution has been achieved	40.1035(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. All sources have been eliminated or controlled	40.1035 (2)(b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Phase IV, Phase V, or Post-RAO O&M, where required, were completed	40.1036(8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A-1. CLASS A-1:		Yes	No	?	NA	Page
1. The level of OHM at the site has been reduced to background	40.1036(1)(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Threats of Release Only: all TORs were eliminated, and a release of OHM has not occurred	40.1036(1)(b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A-2. CLASS A-2:		Yes	No	?	NA	Page
1. An AUL is not required to maintain a condition of No Significant Risk	40.1036(2)(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A-3. CLASS A-3:		Yes	No	?	NA	Page
1. An AUL has been implemented to maintain a condition of No Significant Risk	40.1036(3)(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Groundwater or Soil OHM concentrations do not exceed UCLs	40.1036(3)(d)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A-4. CLASS A-4:		Yes	No	?	NA	Page
1. An AUL has been implemented to maintain a condition of No Significant Risk	40.1036(4)(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- RAO Performance Standards
 - Correct RAO Class
 - Boundaries of RAO
 - Sources eliminated or controlled
 - Content at 310 CMR 40.1056



PRA/CRA Technical Screening Checklist

DEP BWSC PRA LEVEL 1 AUDIT FORM
Disclaimer: This checklist is for use by DEP in reviewing Preliminary Response Action (PRA), and may not be relied upon for any other purpose. This checklist is not a comprehensive list of PRA requirements, which are fully set forth in MGL c. 21E and 310 CMR 40.0000. Completion of this checklist by DEP does not constitute a final agency decision, and does not create any legal rights or relieve any party of obligations that exist pursuant to applicable laws.

I. TECHNICAL ADEQUACY		Category	Yes	No	Y	NA	Pass #
A. Release or Threat of Release Conditions – Indication That:							
1. Notification conditions have been properly identified		40.0332	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The appropriate media and receptors have been identified		40.0403	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Notification was made on or before the required notification timeframe (2-to72-hr/120 day)		40.0404(1), 40.0300 – 40.0306	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B. Description of Response Actions – Indication That:							
1. Response actions have been described fully		40.0403	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Special conditions, and/or interim deadlines have been met		40.0404(1), 40.0403(2), 40.0403(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Response actions taken were approved (if necessary)		40.0404(1), 40.0403(2), 40.0403(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Response actions proposed or taken demonstrate the level of diligence necessary, consider relevant policies, methods or practices, or have been technically justified		40.0391, 40.0392	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Analytical or environmental monitoring data is scientifically valid and defensible, and of a level of precision and accuracy commensurate with its stated or intended use		40.0017	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C. Remediation Waste – Indication That:							
1. Remediation waste has been managed appropriately		40.0030	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Site or Leaking Member is non-complex		40.0034	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
II. Preliminary Response Action Type							
A. Immediate Response Actions (required for 24/7-hr releases) – Indication That:							
1. Deadlines have been met (Plan within 60 days, Status Report within 120 days and every 6 months from approval or receipt of Plan, Completion Report within 60 days following completion of IRA activities)		40.0404(2), 40.0403(7), 40.0405(1)(2), 40.0405(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The IRA Plan/Status Report/Completion Report is adequate/complete		40.0404, 40.0405, 40.0406	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Release/threat of release has been adequately assessed or additional assessment is planned		40.0406, 40.0414(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. An imminent hazard condition has been assessed		40.0409	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. A condition of Subsurface Release Migration (leak exists and has been assessed or doesn't exist)		40.0006, 40.0313(6), 40.0412(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Critical Exposure Pathway has been eliminated and/or mitigated or doesn't exist		40.0006, 40.0414(3)(4), 40.0427(1)(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. PH II completed when cap/liner/sealed barrier was proposed or constructed as part of a Permanent Solution		40.0414(7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Excavation and stockpiling of <100 cubic yards (cum.) of Treated oil- or waste oil-contaminated soil before next		40.0421(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B. Release Abatement Measures – Indication That:							
1. Submittal deadline has been met (Plan within 60 days, Status Report within 120 days and every 6 months from approval or receipt of Plan, Completion Report within 60 days following completion of RAM activities)		40.0404(2), 40.0403(1)(4)(5), 40.0405(1), 40.0405(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The RAM Plan/Status Report/Completion Report is adequate/complete		40.0404, 40.0405, 40.0406	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. An IRA condition does not exist		40.0411(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Off-site disposal of up to 500 cubic yards (cumulative) of Cr/VII-contaminated soil		40.0405(2)(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. On or off-site treatment, recycling, or reuse of up to 1500 cubic yards (cumulative) of Cr/VII-contaminated soil		40.0405(2)(b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Excavation of <1500 cubic yards (cum.) of Cr/VII-contaminated soil with certification of sufficient financial resources		40.0405(2)(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. PH II completed when cap/liner/sealed barrier was proposed or constructed as part of a Permanent Solution		40.0405(2), 40.0406(4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C. Utility-related Abatement Measures – Indication That:							
During emergency repair, notification provided within 72-hours of conducting URAM		40.0405(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1. Submittal deadline has been met (Letter of Intent within 7 days, Status Report within 120 days and every 6 months from notification, Completion Report within 60 days following completion of URAM activities)		40.0404(2), 40.0405, 40.0406(1), 40.0406(2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. A 24-hour or 72-hour reporting condition does not apply		40.0405(1)(b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Excavation of <150 cubic yards (cum.) of oil- or waste oil-contaminated soil (LSP not required)		40.0405(4)(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Excavation of <20 cubic yards (cum.) of haz. mat.-contaminated soil or mixed oil/haz. mat. soil (LSP not required)		40.0405(4)(b)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Temporary relocation of soil is returned to site or otherwise managed within 14 days		40.0405(5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Reasonable attempt made to notify property owner, except during non-business-hour emergency repairs		40.0407(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- PRA - IRAs, RAMs, URAMs, LRAs, Phase I, Tier Classification
- CRA – Phase II, III, IV, V



AUL Screening Checklist

AUL COMPLIANCE ASSISTANCE FORM

Checklist for Notices of Activity and Use Limitation -- MCP as amended through April 3, 2006 -- Form 1075

- NOTE: This checklist is intended to assist parties in preparing and implementing Notices of Activity and Use Limitation (AULs) on Form 1075. For ease of reference in using this checklist, each paragraph of the attached Form 1075 has been labeled and numbered. This checklist is intended solely as guidance, and is not a substitute for the regulations. Parties implementing AULs should carefully consult 310 CMR 40.0000 (the MCP) for general and specific regulatory requirements for AULs.

REQUIREMENTS FOR COMPLETING FORM 1075			Reference(s) to MCP Form	Notes
1.	Is the 04/10/06 version of the Form 1075 being used?	Y N	40.1074(1)(a)	
2.	Is the Form's boilerplate unaltered, except where alterations are allowed through bracketed language?	Y N	40.1074(1)(a)	
3.	Is the AUL a Confirmatory Notice of Activity and Use Limitation?	Y N	40.1085	
4.	Is the word "Confirmatory" appropriately included or omitted in the following locations, to indicate whether the AUL is a Confirmatory Notice of Activity and Use Limitation? Header --- Paragraph 1 --- Paragraph 15 --- Paragraph 19	Y N	Form 1075	
5.	Is optional Paragraph 16 appropriately included or omitted, to indicate whether the AUL is a Confirmatory Notice of Activity and Use Limitation?	Y N	Form 1075	
6.	If the AUL is a Confirmatory Notice of Activity and Use Limitation, does Paragraph 16 identify the date, Registry, book and page number of the original AUL?	Y N	Not Applicable	Form 1075
7.	If the AUL is a Confirmatory Notice of Activity and Use Limitation, are the errors in the original AUL listed in Paragraph 16?	Y N	Not Applicable	Form 1075
8.	Are the Confirmatory Exhibits accurately attached to the Confirmatory AUL? (For example, is documentation of signatory authority attached as Exhibit E)	Y N	Not Applicable	Form 1075
9.	Is the Disposal Site name identified in the Header of Form 1075?	Y N	40.1074(2)(d)	
10.	Is the DEP Release Tracking Number(s) identified in the Header of Form 1075?	Y N	40.1074(2)(d)	
11.	Does the Form identify, in Paragraph 1, the date on which the property owner(s) signed the AUL?	Y N	Form 1075	
12.	Is (are) the name(s) of the property owner(s) identified, in the following locations? --- Paragraph 1 --- Paragraph 2 --- Paragraph 21 (this paragraph may reference the property owner or an authorized representative)	Y N	40.1074(2)(b)	
13.	Is (are) the name(s) of property owner(s) consistent in all locations?	Y N		

Death 08/2006

Page 1

- AUL Legal Screen*
 - Correct Form Used
 - Proper Exhibits Attached
 - Signatory Authority
 - Public Notice
- * Usually accompanies RAO Screen



Level 1 Audits

- **All RAOs**
 - Within 6 months of receipt
- May include PRAs, CRAs, and AULs
- No notification
- Use DEP checklist

<http://www.mass.gov/eea/agencies/massdep/cleaup/sites/technical-screening-audit-forms-checklists.html>

Outcome – No action, Level 3, NON, HLE



Comprehensive Audit?

- Review of RAO for simple petroleum release in urban area indicates soil EPCs less than applicable Method 1 standards. However, EPCs were not calculated properly.

Comprehensive Audit?


- Complex site with chlorinated VOC release. Large report with assessments conducted over several years. Level 1 screen does not indicate obvious problem. Sensitive receptors are nearby.

Level 2 Audits

- AUL Re-inspections
- Remedial System/Programs
- Short notice to PRP
- Site Inspection

Outcome – Level 3, NVD, NON, HLE

AUL Forms

 MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION Western Regional Office/Bureau of Waste Site Cleanup AUL FIELD INSPECTION FORM		RELEASE TRACKING NUMBER 1- 1 TOWN: CHICOPEE
Site Name: _____ Address: _____		Contact Person: _____ Phone: _____
AUL INFORMATION (filled out by Screening/Office Staff) Date Recorded: 07/06/95 Description of AUL area at time of filing: <input type="checkbox"/> Building(s) <input checked="" type="checkbox"/> Pavement <input type="checkbox"/> Cap/cover <input type="checkbox"/> Grassed/landscaped <input type="checkbox"/> Other: AUL covers: <input type="checkbox"/> Property <input checked="" type="checkbox"/> Portion <input type="checkbox"/> Unclear Additional details/other relevant info on AUL area(s): AUL applies to an area 9 ft x 15 ft where a No. 2 fuel oil UST was previously located between two buildings.		SITE INSPECTION (filled out by Field Staff) Boundaries of AUL area(s) identifiable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Complete access to all AUL area(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Evidence of recent excavation/disturbance? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Evidence of recent construction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Remediation Waste present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Indication of potentially serious site conditions? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Other Notes: During a phone conversation conducted on October 10, 2012, the Department was granted oral approval b _____ a _____ to conduct the inspection unescorted.
PERMITTED ACTIVITIES AND USES <input type="checkbox"/> Residential <input type="checkbox"/> Daycare <input type="checkbox"/> School <input type="checkbox"/> Playground <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Excavation <input type="checkbox"/> Construction <input type="checkbox"/> Recreation <input type="checkbox"/> Other/Details/Conditions: Passive uses only.		OBSERVED ACTIVITIES AND USES <input type="checkbox"/> Residential <input type="checkbox"/> Daycare <input type="checkbox"/> School <input type="checkbox"/> Playground <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Excavation <input type="checkbox"/> Construction <input type="checkbox"/> Recreation <input type="checkbox"/> Comments: The property is currently occupied by _____ automotive facility VIOLATION OBSERVED: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Possible
INCONSISTENT/RESTRICTED ACTIVITIES AND USES <input type="checkbox"/> Residential <input type="checkbox"/> Day Care <input type="checkbox"/> School <input type="checkbox"/> Playground <input type="checkbox"/> Park <input type="checkbox"/> Recreation <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Excavation <input checked="" type="checkbox"/> Disturbance Gardening - type: <input checked="" type="checkbox"/> Fruits/veggies <input checked="" type="checkbox"/> Flowers/landscaping Other/Details/Conditions: Excavation is prohibited without prior consultation with DEP or an LSP.		OBSERVED ACTIVITIES AND USES <input type="checkbox"/> Residential <input type="checkbox"/> Day Care <input type="checkbox"/> School <input type="checkbox"/> Playground <input type="checkbox"/> Park <input type="checkbox"/> Recreation <input type="checkbox"/> Construction <input type="checkbox"/> Excavation <input type="checkbox"/> Disturbance Gardening - type: <input type="checkbox"/> Fruits/veggies <input type="checkbox"/> Flowers/landscaping Comments: No inconsistent activities or uses were observed. VIOLATION OBSERVED: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Possible
OBLIGATIONS AND CONDITIONS <input checked="" type="checkbox"/> Maintain pavement <input type="checkbox"/> Maintain other cap/cover/liner <input type="checkbox"/> Soil Mgmt Plan (SMP) <input type="checkbox"/> Health & Safety Plan (HSP) <input type="checkbox"/> Maintain signs/notices. Other/Details/Conditions: Placement of a 3" layer of asphalt, and maintenance of same.		OBSERVED CONDITIONS <input checked="" type="checkbox"/> Pavement <input type="checkbox"/> Cap/cover/liner <input type="checkbox"/> Signs/notices Comments: The pavement has weeds growing at the sides adjacent to the buildings, as well as through the pavement in spots, but there is no evidence of exposure, currently. Following the inspection, I contacted _____ by telephone to inform her that the pavement must be maintained to prevent future non-compliance. VIOLATION OBSERVED: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Possible
AUL Sketch attached to this form? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Completed by: Abby Kingman Date: 4/20/04		Completed by: Rebecca Woolley Inspection Date: 10/10/2012

OBSERVED CONDITIONS

☒ Pavement
 ☐ Cap/cover/liner
 ☐ Signs/notices

Comments:

The pavement has weeds growing at the sides adjacent to the buildings, as well as through the pavement in spots, but there is no evidence of exposure, currently. Following the inspection, contacted _____ by telephone to inform her that the pavement must be maintained to prevent future non-compliance.

VIOLATION OBSERVED: ☒ No ☐ Yes ☐ Possible



Remedial System/Program Forms

RSI AUDIT -- PRE-INSPECTION SCREENING CHECKLIST

Lead RTN:	Town: Easthampton	Action Inspected: <input type="checkbox"/> Phase V <input type="checkbox"/> Class C <input checked="" type="checkbox"/> ROS
PRP/OP:	Site Name:	
Owner: same	LSP / Consultant:	
Occupant: vacant	Site Contact / Phone #:	
Condition	Yes/No	Comments
Public Health Concerns		
> 0.5" NAPL within 15 feet of ground surface	N	
> 5 mg/l total VOCs <15 ft bgs & w/in 30 ft of school/residence	N	>30 ft., cross- & up-gradient.
OHM in surficial soil in S-1 area (school/residence/park)	N	
Private wells located < 500 feet, or site in Zone II or IWPA	N	
Other potential impacts to nearby receptors	N	Seems unlikely given the length of monitoring activities.
Environment and Release Characteristics		
Within 500 feet of surface water, ACEC, and/or wetlands	Y	Manhan River 370 feet northwest and associated BVW.
Confirmed contamination of surface water and/or wetlands	N	
Multiple sources of contamination	Y	Two sets of two gasoline USTs
Media other than soil or groundwater are affected	N	
Remediation Waste (310 CMR 40.0030)		
Remediation Waste removed within 120 days	NA	No waste generated
Remediation Waste has been properly managed	NA	
Operation, Monitoring and Maintenance		
Phase V / Class C OMM Requirements (310 CMR 40.0890)		
OMM Plan is on-file, with Ph. IV RIP, per 40.0874(3)(d)	Y	July 2001 (AS/SVE)
OMM Plan identifies the type and frequency of monitoring	Y	
OMM activities done in accordance with RIP goals & criteria	Y	
OMM Plan updated in response to changes in site conditions	Y	RIP modified under ROS (O ₂ sparge & MNA) and a RAM (annual ISCO injections).
Current I&M report received on time (due every 6 mos.)	Y	
OMM results are adequately documented, per 40.0892	Y	
Additional ROS Requirements (310 CMR 40.0893)		
Complete ROS submittal was received, per 40.0893(3)	Y	November 2002
CRA is designed to achieve a Permanent Solution	Y	
CRA is properly operated, monitored, and/or maintained	Y	
Each source of OHM has been eliminated or controlled	Y	
All Substantial Hazards have been eliminated	Y	
CRA modified or ROS terminated when required	Y	
Remedial Action Summary: Two, 400-lb liquid oxygen tanks supply gaseous O ₂ at a average flow rate of 1-4 scfh, at 2-15 psi, via a manifold leading to nine sparge wells. The system is inspected semi-monthly. The tanks last approximately 30 days between replacement.		

11. MNA monitoring points and monitoring frequency identified in OMM Plan: _____ Bi-annual sampling of groundwater monitoring wells MW-2, ATC-5, and ATC-7, for VPH and MNA field parameters.
12. Analytical tests performed to evaluate progress of MNA: <input checked="" type="checkbox"/> VPH <input type="checkbox"/> EPH <input type="checkbox"/> VOCs <input type="checkbox"/> SVOCs <input type="checkbox"/> CVOCs <input type="checkbox"/> PAHs <input type="checkbox"/> PCBs <input type="checkbox"/> Metals (Fe, Mn) <input checked="" type="checkbox"/> pH <input checked="" type="checkbox"/> DO <input checked="" type="checkbox"/> Temp <input checked="" type="checkbox"/> ORP <input type="checkbox"/> CH ₄ <input type="checkbox"/> TOC <input type="checkbox"/> NO ₃ <input type="checkbox"/> SO ₄ <input type="checkbox"/> Plate count
13. Monitoring data shows that the plume is: <input type="checkbox"/> expanding <input type="checkbox"/> shrinking <input checked="" type="checkbox"/> static <input type="checkbox"/> unclear Primary contaminant concentrations are: <input type="checkbox"/> increasing <input checked="" type="checkbox"/> decreasing <input type="checkbox"/> static <input type="checkbox"/> unclear Secondary contaminant concentrations are: <input type="checkbox"/> increasing <input type="checkbox"/> decreasing <input type="checkbox"/> static <input type="checkbox"/> unclear <input checked="" type="checkbox"/> N/A Comments: Contaminant concentrations are decreasing overall, especially at the source area. However, residual MTBE is still reaching the potable bedrock wells located at 111 and 114 East Hill Road, although at concentrations below the GW-1 standard. Breakthrough of MTBE in the carbon filtration systems was observed at both locations in December 2012 and March 2013.

Field Inspection (indicate all that apply)

1. Are the MNA monitoring points present and in useable condition? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Comments: Wells ATC-5, ATC-7 and MW-2 were located.
2. Were the receptors observed at and in the vicinity of the site during the inspection consistent with those identified during the file review? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Comment: The residence is _____ y and rented to tenants.
3. Have impermeable surfaces been added over or removed from over the plume area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4. Other Comments: The audit inspection was attended by the property owner, _____. Site conditions appeared consistent with information contained in the site file. The carbon filtration system that serves the residences located at _____ and the _____ restaurant, is located in the basement of I _____. I explained to _____ that, based upon the breakthrough concentrations of MTBE observed in the March 2013 mid-fluent and effluent sampling results, re-bedding the carbon units is recommended. Mr. _____ volunteered to have the carbon units re-bedded promptly. I contacted _____ (LSP-of-Record) c by telephone on May 14, 2013. We discussed site progress, notification of environmental sampling documentation, and the need to maintain the carbon filtration units to mitigating the low levels of MTBE in the potable wells. Copies of Notices of Environmental Sampling were received via eDEP on May 24, 2013. Re-bedding of the carbon filtration system was completed on June 25, 2013.

Completed by: Rebecca Woolley Date: 6/25/2013



Level 3 Audits

- Generally RAOs – but may be at any Phase
- Timeframes – there are exceptions at 310 CMR 40.1110(4)
- Written Notice of Audit
 - Potential issues/focus
 - RFI

Notice of Audit

Request For Site Inspection

The Department requests an appointment to inspect the site **on October 9, 2013, at 2:30 PM**. The inspection will be conducted by Michael Reed. You or your representatives familiar with the site are requested to attend. The LSP-of-Record may also attend. Please call Michael Reed within five (5) days of your receipt of this Notice at 413-755-2290 if you need to arrange an alternative date or time. **The purpose of the inspection will be to evaluate the site conditions in relation to the information received by the Department. Preliminary audit findings based on the Department's file review may also be discussed during the site inspection.**

Request For Site Inspection

The Department requests an appointment to inspect the site **on December 2, 2011, at 9:30AM**. The inspection will be conducted by Rebecca Woolley. You or your representatives familiar with the site are requested to attend. The LSP-of-Record may also attend. Please call Rebecca Woolley within five (5) days of your receipt of this Notice at 413-755-2263 if you need to arrange an alternative date or time. **The purpose of the inspection will be to evaluate the site conditions in relation to the information received by the Department and to discuss the following issues identified during the Department's record review:**

- Adequacy of soil, groundwater, and indoor air assessments
- Upper Concentration Limits for non-aqueous phase liquid; and
- Requirements for Remedial Additive monitoring

Preliminary audit findings based on the Department's file review may also be discussed during the site inspection.



RFI

- May be included with Notice of Audit
- Request for information that **should be on file** or **clarifications of what is on file**
 - e.g., boring logs, disposal documentation, EPC calculations
- **Does not include** new data needed to support an existing Opinion



Level 3 Audits

- Generally RAOs – but may be at any CRA Phase
- Timeframes – there are exceptions at 310 CMR 40.1110(4)
- Written Notice of Audit
 - Potential issues/focus
 - RFI

Outcome – NVD, NON, HLE



Notice of Audit Findings

310 CMR 40.1140



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

DEVALL L. PATRICK
Governor

RICHARD K. SULLIVAN, Jr.
Secretary

KENNETH L. KIMMELL
Commissioner

October 30, 2013

ABC Company
1 Main Street
Somewhere, MA 011XX

Attn: John Smith, President

Re: **NOTICE OF AUDIT FINDINGS AND
NOTICE OF NONCOMPLIANCE**
Springfield
1 Main Street
RTN 1-1XXXX
NON-WE-13-3AXXX

Dear Mr. Smith:

On August 1, 2013, ABC Company (hereafter referred to as you/your) was notified that the Massachusetts Department of Environmental Protection (the Department, MassDEP) had begun a comprehensive audit of response actions conducted to address the release of oil and/or hazardous material at the location identified above. This Notice informs you of the results of the Department's audit.

VIOLATIONS IDENTIFIED

The Department has determined that response actions were not performed in compliance with the requirements of the Massachusetts Contingency Plan (MCP). The enclosed Notice of Audit Findings and Notice of Noncompliance lists the violation(s) and those action(s) that are required to achieve compliance. Specifically, the Notice of Audit Findings and Notice of Noncompliance contains: (1) the requirement violated, (2) the date and place that the Department asserts the requirement was violated, (3) either the specific actions which must be taken in order to return to compliance or direction to submit a written proposal describing how and when you plan to return to compliance and (4) the deadline for taking such actions or submitting such a proposal.

SOMEWHERE, RTN 1-XXXX

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**NOTICE OF AUDIT FINDINGS AND
NOTICE OF NONCOMPLIANCE**

LICENSED SITE PROFESSIONAL (LSP)

A copy of this Notice has been sent to [LSP-of-Record], the current LSP-of-Record for the disposal site. However, you, not your LSP, are responsible for responding to this Notice of Noncompliance and correcting the violations identified therein.

LIMITATIONS

The Department's findings were based on the certainty of the information reviewed during the audit. These findings do not: (1) apply to actions or other aspects of the site that were not reviewed in the audit, (2) preclude future audits of past, current, or future actions at the site, (3) in any way constitute a release from any liability, obligation, action or penalty under M.G.L. c. 21E, 310 CMR 40.0000, or any other law, regulation, or requirement, or (4) limit the Department's authority to take or arrange, or to require any Responsible Party or Potentially Responsible Party 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.

If you have any questions regarding this Notice, please contact [Auditor name] at 413-755-[xxxx]. Please reference Release Tracking Number [1-xxxxx] and Enforcement Tracking Number NON-WE-[1x-3AXXX] in any future correspondence to the Department regarding the site.

Sincerely,

Eva V. Tor
Deputy Regional Director
Bureau of Waste Site Cleanup

Certified Mail # [number], Return Receipt Requested

Enc.: Notice of Audit Findings and Notice of Noncompliance

e-c: [Towns]: [Board of Selectmen][Chief Municipal Officer], [Board of Health][Health Department]
[LSP-of-Record], LSP-of-Record, [company]
Derrick Bruce, DEP WERO
Data Entry: [Response action code]/ACTAUD; AUDCOM/NAFNON; FLDRAN
mm/dd/yyyy



Notice of Noncompliance

NOTICE OF AUDIT FINDINGS AND NOTICE OF NONCOMPLIANCE

NON-WE-[13-3AXXX]
RTN [1-1XXXX]

**THIS IS AN IMPORTANT LEGAL NOTICE.
FAILURE TO RESPOND COULD RESULT IN SERIOUS LEGAL CONSEQUENCES.**

NAME OF ENTITY IN NONCOMPLIANCE:

ABC Company
1 Main Street
Somewhere, MA

LOCATION WHERE NONCOMPLIANCE OCCURRED OR WAS OBSERVED:

1 Main Street, Somewhere

DATES WHEN NONCOMPLIANCE OCCURRED OR WAS OBSERVED:

July 31, 2010; January 31, 2011; January 31, 2012; January 31, 2013; July 31, 2013

DESCRIPTION OF REQUIREMENT(S) NOT COMPLIED WITH:

1. 310 CMR 40.0898(1)

At a minimum, Post-Class C RAO Status Reports described in 310 CMR 40.0898(2) must be submitted to the Department six months from the receipt by the Department of the original plan for Post-Class C RAO operation, maintenance, and/or monitoring (OMM) and every six months thereafter for the duration of the operation of the remedy.

The Class C-1 RAO and post-RAO OMM plan was received by the Department on July 30, 2009. Therefore, post-RAO status reports became due to the Department on January 31 and July 31 of each year thereafter. Several status reports were either received late or not received.

ACTION(S) TO BE TAKEN AND DEADLINE(S) FOR TAKING SUCH ACTION(S):

1. Submit either a post-RAO status report or a Class A RAO indicating that a Permanent Solution has been achieved for the disposal site.
2. Complete the actions specified above and submit a Post-Audit Completion Statement in accordance with 310 CMR 40.1170, on the form established by the Department (BWSC-111), **within 30 days** of the date of this Notice. For more information on electronic submittal of forms and reports, please visit MassDEP's website, <http://www.mass.gov/eea/agencies/massdep/service/online/edep-online-filing.html>

[TOWN], RTN [1-XXXXX]

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NOTICE OF AUDIT FINDINGS
AND NOTICE OF NONCOMPLIANCE

If the required actions are not completed by the deadlines specified, an administrative penalty may be assessed for every day after the date of this Notice that the noncompliance occurs or continues. The Department reserves its rights to exercise the full extent of its legal authority in order to obtain full compliance with all applicable requirements, including, but not limited to, criminal prosecution, civil action including court-imposed civil penalties, or administrative action, including administrative penalties imposed by the Department.

For the Department of Environmental Protection:

Date: _____

By: _____

Eva V. Tor
Deputy Regional Director
Bureau of Waste Site Cleanup



Invalidation of RAO

- RAO Performance Standards Clearly Not Achieved
 - 40.1003(1) – Significant risk still present – class A or B RAOs – Significant exceedances of applicable standards, incorrect gw classification when GW-1 present, AUL not implemented when required, exceedances of UCLs, etc.
 - 40.1003(5) - Class A or B RAOs: Failure to eliminate or control source (NAPL, impacts to groundwater from contaminated soils, etc)
 - 40.1050(1) – Class C RAO: Substantial hazard still present



Common Violations

- AULs
 - Signatory Authority
 - Reference in deed upon transfer
 - Failure to maintain conditions of AUL (HLE) (e.g. cap missing)
- Remedial System/Programs
 - Missed Status Reports
 - Failure to follow OMM Plan
 - Remedial Additive monitoring requirements
- RAOs
 - Extent
 - Indoor air
 - Exposure Point Concentrations



Summary

- Likely to be audited
- Not all audits include same level of effort
- RAOs within approximately 6 months of receipt
- AULs and Remedial Systems/Programs audited on periodic basis
- Comprehensive audit doesn't always result in noncompliance
- Issue NOAFs for all AUL, Remedial Systems/Programs, Comprehensive Audits
- Compliance with NON Deadlines



Questions

John Ziegler

BWSC-WERO

(413) 755-2228

John.Ziegler@State.MA.US

