

**DEP BWSC RESPONSE ACTION OUTCOME (RAO)
TECHNICAL SCREENING AUDIT FORM
Confidential Cover Page**

Lead RTN: 3- <u>362</u>		Comprehensive Audit Recommended? Yes ☐ No ☒		Technical Screen Score: I <u>5</u> II <u>1</u> III <u>1</u>	
Prelim-Screen Results: Low ☐ Med ☐ Full Screen Recommended ☒					
SUBMITTAL TYPE (Circle one) RAO ☐ RAO-P ☒ LSP Eval. Opin. Waiver Compl. St. RAO w/ AUL Other: Related RTNs: Pre-Screen Auditor <u>PD</u> Full Screen Auditor <u>WP</u>		OHM description: (Source, Type of OHM, Media Affected) <u>Drum, Lined, BTEX, for soil + groundwater from MGP activities</u> Site Use: <u>16 acres, former municipal Gar Plant.</u>		Total Score <u>5</u> Flags? No ☒ Yes ☐ Date RAO Rcvd <u>02-27-04</u> Pre-Screen Date <u>04-15-04</u> Full Screen Date <u>06-07-04</u> Recommend Technical Screen NOAF? Yes ☐ No ☒ Technical Screen NOAF Sent? No ☐ Yes ☐	
Town: <u>Malden</u>		Site Name: <u>Former Malden MGP site</u>			
Address: <u>100 Commercial street</u>					
PRP/OP: <u>Massachusetts Global Company</u>		LSP Name: <u>Richard P. Standish</u>			
Consultant: <u>Haley + Aldrich</u>		LSP No.: <u>2242</u>			
Information from RAO Form BWSC-104, Section F MUST BE COMPLETED FOR RAO SCREENING					
Risk Char. <u>3</u>		Actual (not applied)		RAO Class <u>C</u>	
NA - Background (A-1, B-1) <u> </u>		GW Category: <u>2,3</u>			
		Soil Category: <u>2,3</u>			
Compliance History (Circle highest that applies for PRP and LSP)					
Compliance History Unknown for: PRP ☐ LSP ☐					
Potentially Responsible Party (PRP) with previous NONs				Yes/No	
Potentially Responsible Party (PRP) with previous higher level enforcement				Yes/No	
Licensed Site Professional (LSP) with previous NONs				Yes/No	
Licensed Site Professional (LSP) with previous higher level enforcement/LSP Board action				Yes/No	
No RAO Report Available ☐ Insufficient Supporting Documentation to Score ☐					
Comments: <u>MGP, Malden Tideland project is downstream from site. LSP + drum removal on site. LSP Proposer drum extraction from new's on Parcel A and E. LNAPL recovery using belt skimmers on Parcel A and E. In situ oxidation of accessible soils. Biosparging + SVE system on Parcel B.</u>					
Gauge existing wells for NAPL ☐ Fall ☐ Spring ☐					
Test existing wells/probes or IAQ ☐ VOCs ☐ Other ☐					
Install/test new monitoring points ☐ gw ☐ vapor ☐ VOCs ☐ other ☐					

DEP BWSC RAO Confidential Technical Screening Scoresheet

Yes	No	?	Yes	No	?	Yes	No	?	Yes	No	?	Yes	No	?	NA
I. Site Concern															
A. Time Critical															
1.	8	4													
2.	5	2													
3.	7	3													
4.	4	2													
5.	10	5													
B. Drinking Water															
1.	3	1													
2.	4	2													
3.	6	3													
4.	6	3													
5.	10	5													
6.	10	5													
C. Contaminated Soil															
1.	1	0													
2.	2	1													
3.	3	1													
D. Site and Area Use															
1.	4	0													
2.	2	1													
3.	3	1													
4.	4	2													
E. Released OHM															
1.	3	1													
2.	5	2													
3.	6	3													
4.	10	5													
F. Environmental															
1.	1	0													
2.	3	1													
3.	5	2													
G. Complexity															
1.	5	2													
2.	3	1													
3.	5	2													
Total Section I 51															
II. Technical Adequacy															
A. Remedial Response															
1.	5	2													
2.	6	3													
3.	10	5													
B. Source/Extent															
1.	3	1													
2.	8	4													
3.	8	4													
4.	8	4													
5.	10	5													
6.	8	4													
C. Risk Characterization															
1.	3	1													
2.	5	2													
3.	8	4													
4.	8	4													
5.	10	5													
6.	10	5													
7.	3	1													
8.	6	3													
9.	6	3													
10.	10	5													
11.	8	4													
12.	7	3													
Total Section II 51															
III. Response Action Outcome															
1.	5	2													
2.	5	2													
3.	6	3													
4.	3	1													
Total Section III 51															
Total Site Score 51															

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Lead RTN: 3- 302				
SUBMITTAL TYPE (Circle one) RAO <u>RAO-P</u> LSP Eval. Opin. Waiver Compl. St. RAO w/ AUL Other: Related RTNs:		OHM description: (Source, Type of OHM, Media Affected) <u>DNAPL, LNAPL, BTEX, etc. soil + gw contamination from MGP activities</u> Date RAO <u>02-27-09</u> Site Use: <u>16 acres, former manufacturing gas plant</u>		
Town: <u>Malden</u>		Site Name: <u>former Malden MGP site</u>		
Address: <u>100 Commercial Street</u>				
PRP/OP: <u>Massachusetts Electric Company</u>		LSP Name: <u>Richard P. Stedrich</u>		
Consultant: <u>Haley and Aldrich</u>		LSP No <u>2292</u>		
TECHNICAL SCREENING CHECKLIST				
Condition	Yes	No	?	Page#
I. SITE CONCERNS (Based upon conditions at time of RAO submittal)				
A. Time Critical Conditions (Check all that apply)				
1. ☐ > Applicable GW-2 standard @ residence/school with no soil gas/indoor air sampling		☒		
2. ☐ >0.5" NAPL observed in any monitoring well			☒	
3. ☐ One or more data points > UCL			☒	
4. ☐ EPC in S-1 soil > Method 1 standard and school/residence within 500 feet		☒		
5. ☐ Site contaminants present in indoor air	☒	☒		
B. Drinking Water (Check all that apply)				
1. Site within potential drinking water source area (PDWSA)		☒		
2. Site located within IWPA/mapped Zone II		☒		
3. Private/Non- municipal public well(s) located within 500 feet of site		☒		
4. Municipal well(s) located within 1000 feet of site		☒		
5. ☐ Contaminated private well confirmed with same contaminant-type as source/release		☒		
6. ☐ Contaminated public water supply confirmed as a result of site		☒		
C. Contaminated Soil (Check all that apply)				
1. Category S-3 Soils	☒			
2. Category S-2 Soils	☒			
3. Category S-1 Soils		☒		
D. Site/Area Use (Check all that apply)				
1. Industrial (no children likely to be present)	☒			
2. Commercial (limited presence of children)	☒			
3. School/Institution		☒		
4. Residential		☒		
E. Contaminant Type(s) (Check all that apply)				
1. Petroleum Fuel Oils	☒			
2. Gasoline, lube oils, waste oils and other petroleum products	☒			
3. Metals, coal tar, PCBs, pesticides/herbicides, asbestos	☒			
4. Chlorinated Solvents or Other		☒		
F. Environmental Concerns (Check all that apply)				
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	☒			
G. Site Complexity (Check all that apply)				
1. Media other than groundwater or soil affected (surface water, air, sediment)	☒			
2. Co-mingled plumes (i.e., different sources from one or more sites co-mingled)	☒			
3. Bedrock contamination			☒	
If ☐ conditions currently exist, see supervisor to discuss.				

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II. TECHNICAL ADEQUACY	Citation(s)	Yes	No	?	NA	Page #
A. Remedial Response Actions – Indication That: (Check all that apply)						
1. Documentation of removal of remediation waste provided	40.0033 (5), (6)	☒				
2. Remediation waste properly managed (reqmnts -Air 95% gw, sw [NPDES], soil properly handled)	40.0031-40.0049	☒				
3. Obtained DEP or other agency approvals and work done in accordance with approvals	40.0100(4), 40.0170(2-3, 5)	☒				
B. Source/Extent Investigations – Indication That: (Check all that apply)						
1. History of OHM use/storage/disposal at the site included	40.0405(1), 40.0833, 40.0923(1)	☒				
2. Potential source(s) identified, characterized, or abated (septic leach field, floor drain, AST, etc.)	40.0923(2)	☒				
3. Extent of contamination defined (including downgradient)	40.0904(2)(a)	☒				
4. Potential or actual OHM analyzed for and/or evaluated (metals, VPH, VOCs, etc.)	40.0926(1)	☒				
5. All likely migration pathways (soil/gw/sw/air/sediment) identified/characterized/evaluated	40.0904(2)(c)	☒				
6. Proper sample collection technique/preservation/analysis/data reporting	40.0017	☒				
C. Risk Characterization – Indication That: (Check all that apply)						
1. Background identified or characterized	40.0904(2)(b)	☒				
2. Soil/groundwater category properly identified	40.0930	☒				
3. EPC calculation provided (spatial or temporal) and EPC properly calculated	40.0926	☒				
4. Hot Spot(s) addressed, identified (as Hot Spot) and not added in to other EPCs	40.0924(2)	☒				
5. Migration Pathways (air, groundwater, etc.) assessed and evaluated in RC (All Methods, media dependent)	40.0904(2)(c)	☒				
6. Applicable soil and/or groundwater standards not exceeded (Method 1 or 2) or AUL applied	40.0974, 40.0975	☒				
7. Correct risk characterization method used	- 40.0941, 40.0942	☒				
8. AUL Permitted/Inconsistent Activities, etc. understandable to general public and clearly written	40.0923(4)	☒				☒
9. All receptors accounted for (construction worker, trespassers, wetland, etc.) (Method 3)	40.0920-40.0922	☒				
10. Proper Exposure Scenario assumptions (exposure period, etc.) (Method 3)	40.0923-40.0925	☒				
11. All Exposure Pathways (dermal, inhalation, etc.) presented (Method 3)	40.0925	☒				
12. Final RAO for facility/property submitted with total site risk calculated (Method 3)	40.0993(7)	☒				
III. Response Action Outcome Statement (RAO) Indication That: (Check all that apply)						
1. RAO boundaries defined/delineated (clear description/plan of RAO boundaries)	40.1003(4), 40.1056(2)(a)	☒				
2. Relationship of RAO to other RAOs for that location has been defined	40.1056(1)(d)	☒				
3. Correct RAO category	40.1030 – 40.1050	☒				
4. Indication as to whether OHM(s) exceed UCLs presented	40.1056(1)(i)	☒				
A. CLASS A – Indication That: (Check all that apply)						
1. All uncontrolled sources have been eliminated or controlled	40.1035 (2)(b)					☒
2. Groundwater concentrations do not exceed standards in GW-1 area	40.1036(5)(b)					☒
3. Phase IV, Phase V or Post RAO O&M, where required, has been completed	40.1036(6)					☒
A-1. CLASS A-1 – Indication That: (Check all that apply)						
1. A permanent solution has been achieved	40.1036(1)(a)					☒
2. The level of OHM at the site has been reduced to background	40.1036(1)(a)					☒
3. Response actions eliminated all threats of release and a release oil and/or hazardous material to the environment has not occurred	40.1036(1)(b)					☒
A-2. CLASS A-2 – Indication That: (Check all that apply)						
1. A permanent solution has been achieved	40.1036(2)(a)					☒
2. A background feasibility evaluation has been conducted which demonstrates that achievement of background is not feasible	40.1020(3), 40.1056(2)(e)					☒

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A-3. CLASS A-3 – Indication That: (Check all that apply)	Yes	No	?	NA	Page #
1. A permanent solution has been achieved					40.1036(3)(a)
2. Obligations and Conditions of AUL have been implemented					40.1036(3)(c), 40.1056(2)(g)
3. Reasonable AUL restrictions to maintain No Significant Risk (deep OHM, long exposure period, etc)					40.1074(2)(d-f, h)
4. A background feasibility evaluation has been conducted which demonstrates that achievement of background is not feasible					40.1020(3), 40.1056 (2)(e)
5. Groundwater or Soil OHM concentrations do not exceed UCLs					40.1036(3)(d)
A-4. CLASS A-4 – Indication That: (Check all that apply)					
1. A permanent solution has been achieved					40.1036(4)(a)
2. Obligations and Conditions of AUL have been implemented					40.1036 (4)(c), 40.1056(2)(g)
3. Reasonable AUL restrictions to maintain No Significant Risk (deep OHM, long exposure period, etc)					40.1074(2)(d-f, h)
4. Groundwater or Soil concentrations exceed UCLs; however: (check only a, b, or c)					40.1036 (4)(d), 40.1036(5)(a)
a. concentrations are consistent with background					40.1036(5)(a)
b. contaminated soil is greater than 15 feet below grade					40.1036 (4)(d), 40.1036(5)(a)
c. contaminated soil is beneath an engineered barrier					40.1036 (4)(d), 40.1036(5)(a)
5. Engineered barrier does compare favorably to all other alternatives					40.0859(4), 40.1036(4)(e)
6. UCL Feasibility Evaluation conducted and shows that achieving UCLs is not feasible					40.1036(4)(e), 40.1056(2)(f)
B. CLASS B – Indication That: (Check all that apply)					
1. Remedial actions have not been conducted					40.1045(2)
2. A level of No Significant Risk does exist					40.1045(1)
3. Initial Assessment, Phase I, or Phase II has been completed					40.1046(5)
B-1. CLASS B-1 – Indication That:					
1. One or more AULs are not necessary to maintain a level of no significant risk					40.1046(1)
B-2. CLASS B-2 – Indication That: (Check all that apply)					
1. Obligations and Conditions of AUL have been implemented					40.1046(2)(a), 40.1056(2)(g)
2. Reasonable AUL restrictions to maintain No Significant Risk (deep OHM, long exposure period, etc)					40.1074(2)(d-f, h)
3. Groundwater or Soil OHM concentrations do not exceed UCLs					40.1046(2)(b)
B-3. CLASS B-3 – Indication That: (Check all that apply)					
1. Obligations and Conditions of AUL have been implemented					40.1046(3)(a), 40.1056(2)(g)
2. Reasonable AUL restrictions to maintain No Significant Risk (deep OHM, long exposure period, etc)					40.1074(2)(d-f, h)
3. OHM concentrations exceed UCLs; however: (check only a or b)					40.1046(3)(b),(c)
a. soil is located greater than 15 feet from ground surface					40.1046(3)(b)
b. UCL Feasibility Evaluation was conducted and shows that achieving UCLs is not feasible					40.1046(3)(c)
C. CLASS C – Indication That: (Check all that apply)					
1. All substantial hazards have been eliminated					40.1050(1), 40.1056(2)(d)
2. Soil and/or groundwater concentrations exceed any applicable standards					40.1050(2)(b)
3. Phase II and Phase III were submitted					40.1050(3), 40.1050(4)(a)
4. Plan of definitive & enterprising steps to achieve a permanent solution is included					40.1050(5)(a), 40.1056(2)(j)
5. Statement indicating whether post RAO Active O&M will be conducted is included					40.1056(1)(e)
6. Plan for post-RAO active O&M is included					40.1056(2)(i)