



**CRA REMEDIAL MONITORING REPORT**

Pursuant to 310 CMR 40.0800 (SUBPART H)

Release Tracking Number

3 - 485

Remedial System or Monitoring Program: 1 of: 3

**A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:**

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- a. Active Remedial System: (check all that apply)
  - i. NAPL Recovery
  - ii. Soil Vapor Extraction/Bioventing
  - iii. Vapor-phase Carbon Adsorption
  - iv. Groundwater Recovery
  - v. Dual/Multi-phase Extraction
  - vi. Aqueous-phase Carbon Adsorption
  - vii. Air Stripping
  - viii. Sparging/Biosparging
  - ix. Cat/Thermal Oxidation
  - x. Other Describe: \_\_\_\_\_
- b. Application of Remedial Additives: (check all that apply)
  - i. To the Subsurface
  - ii. To Groundwater (Injection)
  - iii. To the Surface
- c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)
  - i. Reactive Wall
  - ii. Natural Attenuation
  - iii. Other Describe: \_\_\_\_\_

2. Mode of Operation: (check one)

- a. Continuous
- b. Intermittent
- c. Pulsed
- d. One-time Event Only
- e. Other: \_\_\_\_\_

3. System Effluent/Discharge: (check all that apply)

- a. Sanitary Sewer/POTW
- b. Groundwater Re-infiltration/Re-injection: (check one)
  - i. Downgradient
  - ii. Upgradient
- c. Vapor-phase Discharge to Ambient Air: (check one)
  - i. Off-gas Controls
  - ii. No Off-gas Controls
- d. Drinking Water Supply
- e. Surface Water (including Storm Drains)
- f. Other Describe: **NOT APPLICABLE**

**B. MONITORING FREQUENCY:**

1. Reporting period that is the subject of this submittal: From: 4/1/2013 To: 9/30/2013  
(mm/dd/yyyy) (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- a. System Startup: (if applicable)
  - i. Days 1, 3, 6, and then weekly thereafter, for the first month.
  - ii. Other Describe: \_\_\_\_\_
- b. Post-system Startup (after first month) or Monitoring Program:
  - i. Monthly
  - ii. Quarterly
  - iii. Other Describe: **BI-WEEKLY**

3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

**C. EFFLUENT/DISCHARGE REGULATION:** (check one to indicate how the effluent/discharge limits were established)

- 1. NPDES: (check one)
  - a. Remediation General Permit
  - b. Individual Permit
  - c. Emergency Exclusion
 Effective Date of Permit: \_\_\_\_\_ (mm/dd/yyyy)
- 2. MCP Performance Standard MCP Citations(s): \_\_\_\_\_
- 3. DEP Approval Letter Date of Letter: \_\_\_\_\_ (mm/dd/yyyy)
- 4. Other Describe: **NOT APPLICABLE**



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**D. WASTEWATER TREATMENT PLANT OPERATOR:** (check one)

- 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.
  - a. Name:
  - b. Grade:
  - c. License No.:
  - d. License Exp. Date:  (mm/dd/yyyy)
- 2. Not Required
- 3. Not Applicable

**E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD:**

(check all that apply)

- 1. The Active Remedial System was functional one or more days during the Reporting Period.
  - a. Days System was Fully Functional:
  - b. GW Recovered (gals):
  - c. NAPL Recovered (gals):
  - d. GW Discharged (gals):
  - e. Avg. Soil Gas Recovery Rate (scfm):
  - f. Avg. Sparging Rate (scfm):

2. Remedial Additives: (check all that apply)

- a. No Remedial Additives applied during the Reporting Period.
- b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

ii. Peroxides:

Name of Additive	Date	Quantity	Units

iii. Microorganisms:

Name of Additive	Date	Quantity	Units

iv. Other:

Name of Additive	Date	Quantity	Units

c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

i. Permanganates:

Name of Additive	Date	Quantity	Units
<b>SODIUM PERMANGANAT</b>	7/24/2013	<b>2734</b>	<b>GALS</b>

ii. Peroxides:

Name of Additive	Date	Quantity	Units

iii. Persulfates:

Name of Additive	Date	Quantity	Units

iv. Other:

Name of Additive	Date	Quantity	Units



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**E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)**  
(check all that apply)

d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

**F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)**

1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: \_\_\_\_\_ b. Total Number of Days of Unscheduled Shutdowns: \_\_\_\_\_

c. Reason(s) for Unscheduled Shutdowns: \_\_\_\_\_

2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: \_\_\_\_\_ b. Total Number of Days of Scheduled Shutdowns: \_\_\_\_\_

c. Reason(s) for Scheduled Shutdowns: \_\_\_\_\_

3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: \_\_\_\_\_  
(mm/dd/yyyy)

b. No Further Effluent Discharges.

c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

d. No Further Submittals Planned.

e. Other: Describe: \_\_\_\_\_

**G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)**

1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

\_\_\_\_\_

5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.