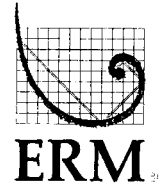


27 October 2003
Reference: 10686

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
Northeast Regional Office
1 Winter Street, 7th Floor
Boston, MA 02108



RE: Immediate Response Action – Six-Month Status Report #6
Former Raytheon Facility
430 Boston Post Road
Wayland, Massachusetts (“the Site”)
Permit No. 133939

Dear Sir or Madam:

On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting an Immediate Response Action (IRA) Six-Month Status Report for the Site. This submittal was prepared in accordance with the requirements of the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. This report represents the sixth status report for the IRA.

BACKGROUND

In accordance with the requirements of the MCP, 310 CMR 40.0480, ERM submitted a Phase I-Initial Site Investigation (Phase I) report for the Site to the Massachusetts Department of Environmental Protection (DEP) in July 1996 and a Tier Classification filing in January 1997. The DEP issued Raytheon a Tier IB Permit, effective 21 May 1997. The Phase II-Comprehensive Site Assessment (Phase II) and Phase III Remedial Action Plan (Phase III) reports were submitted to the DEP on 28 November 2001. The Phase IV Remedy Implementation Plan (Phase IV) was submitted to the DEP on 30 December 2002.

Results of the Phase II linked a suspected area of stunted growth to elevated levels of metals, polychlorinated biphenyls (PCBs) and polynuclear aromatic hydrocarbons (PAHs). The reduced stem count of biota in this area indicated that a potential imminent hazard may exist,

based on the criteria set forth in 310 CMR 40.0955(3). The potential Imminent Hazard Condition was reported to the DEP on 26 April 2000.

An IRA Plan was submitted to the DEP on 26 June 2000 following the imminent hazard determination. The Imminent Hazard Evaluation determined that the Site did not pose an Imminent Hazard to human health or safety, but posed a potential Imminent Hazard to the environment. The objective of the IRA Plan is to continue to assess Site conditions according to the Phase II Scope of Work and addendum in the wetlands, to delineate the extent of impact to sediments and surface water, and assess risk to human health and the environment.

Pursuant to 310 CMR 40.0530, a Major Permit Modification Application was filed on 25 May 2000 to upgrade the Site tier classification and permit from Tier IB to Tier IA following the re-evaluation of the Site Numerical Ranking Score (NRS). On 7 September 2000, Raytheon received a Notice of Proposed Permit Decision from the DEP, which indicated that a new Tier IB permit would be issued with special conditions. Tier IB Permit number 133939 was issued on October 30, 2000.

STATUS OF ASSESSMENT

Assessment activities have been completed at the Site and were documented in the Phase II and Phase IV reports. Comprehensive response actions are currently being implemented in accordance with the Phase IV.

NEW SITE INFORMATION

The selected remedial alternative is to excavate impacted wetland soil/sediment, transport excavated material off-Site for disposal, and restore the wetland. The following permit applications to complete this work were submitted to federal, state and local agencies:

- *Risk-Based Disposal Approval Application* – PCB remediation and disposal permit required by the Toxic Substance Control Act (TSCA) under the Environmental Protection Agency (EPA).

- *Army Corps of Engineers Section 404 Review Permit Application* – Department of the Army requires a permit for disturbance of a wetland that is greater than one acre.
- *Massachusetts Environmental Protection Act (MEPA)* – Remediation projects in a wetland resource area are required to obtain MEPA approval through review of the project by multiple state agencies.
- *401 Water Quality Certification* – A determination of impact to a river or floodplain by an excavation project.
- *Notice of Intent* – Order of Conditions from Wayland Conservation Commission.

These permit applications have been approved and wetlands sediment remedial activities were initiated at the Site on 29 September 2003. It is expected that the wetlands remediation project will be completed in December 2003 with ongoing monitoring activities for an additional five years. Figure 1 depicts the Site Remediation Layout.

MANAGEMENT OF REMEDIAL WASTE

No remediation waste has been generated on-Site in the last six months. During the wetland remediation project, approximately 4,200 cubic yards of impacted sediments will be shipped off-Site for disposal. Generation and off-Site disposal of material will be documented in the next status report. Water pumped from the excavation, to conduct verification sampling, will be either transported off-Site or discharged to the Sudbury River via an National Pollution Discharge Elimination System (NPDES) Emergency Exclusion Permit.

REMEDIAL SYSTEMS DATA

No remedial systems are currently operated on-Site.

Ongoing monitoring of an in-situ chemical oxidation pilot study is being conducted as part of a Release Abatement Measure (RAM).

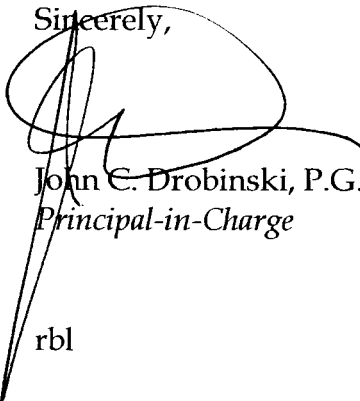
OTHER INFORMATION

The installed fence along the wetland boundary at the Site is regularly inspected and appears in good condition.

LSP OPINION

It is the opinion of the LSP that this IRA is being conducted in conformance with the IRA Plan. The IRA Transmittal Form (BWSC-105) is included in Appendix A.

Sincerely,



John C. Drobinski, P.G., LSP
Principal-in-Charge

rbl

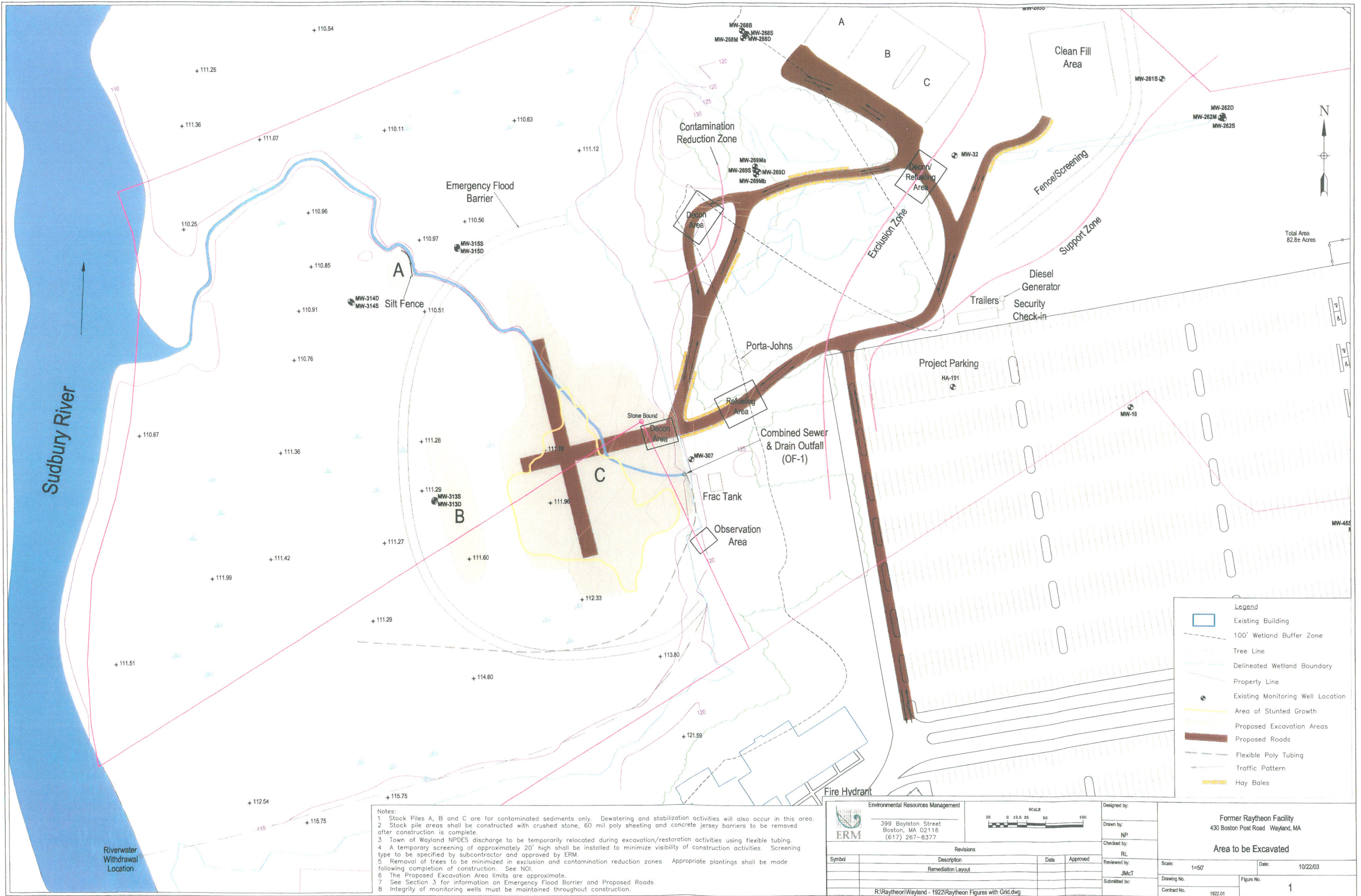


Rachel Leary
Project Manager

Attachment: Figure 1 – Site Layout
Appendix A – BWSC Transmittal Form

cc: Edwin Madera, Raytheon Company
PIP Repository, Wayland Public Library
PIP Repository, Wayland Board of Health
Benson Gould, CMG Environmental
Paula Phillips, Congress Group Ventures

Figure 1 – Site Layout



Notes:

- 1 Stock Piles A, B and C are for contaminated sediments only. Dewatering and stabilization activities will also occur in this area.
- 2 Stock pile areas shall be constructed with crushed stone, 60 mil poly sheeting and concrete jersey barriers to be removed after construction is complete.
- 3 Town of Wayland NPDES discharge to be temporarily relocated during excavation/restoration activities using flexible tubing.
- 4 A temporary screening of approximately 20' high shall be installed to minimize visibility of construction activities. Screening type to be specified by subcontractor and approved by ERM.
- 5 Removal of trees to be minimized in exclusion and contamination reduction zones. Appropriate plantings shall be made following completion of construction. See NOI.
- 6 The Proposed Excavation Area limits are approximate.
- 7 See Section 3 for information on Emergency Flood Barrier and Proposed Roads.
- 8 Integrity of monitoring wells must be maintained throughout construction.

| | | | | | |
|--|--------------------|----------------------------------|----------|---------------------------------|--|
| Environmental Resources Management 399 Boylston Street Boston, MA 02116 (617) 267-8377 | | SCALE 0 12.5 25 50 100 | | Designed by: Drawn by: NP | |
| Revisions | | | | Checked by: RL | |
| Symbol | Description | Date | Approved | Reviewed by: JMcT | |
| | Remediation Layout | | | Submitted by: | |
| R:\Raytheon\Wayland - 1922\Raytheon Figures with Grid.dwg | | | | Scale: 1"=50' | |
| | | | | Date: 10/22/03 | |
| | | | | Drawing No. Figure No. | |
| | | | | Contract No. 1922.01 | |
| | | | | 1 | |

Former Raytheon Facility
430 Boston Post Road Wayland, MA
Area to be Excavated

Appendix A
BWSC Transmittal Form 105



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 19485

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: Former Raytheon Facility

2. Street Address: 430 Boston Post Road

3. City/Town: Wayland

4. ZIP Code: 01778-0000

☒ 5. Check here if a Tier Classification Submittal has been provided to DEP for this Disposal Site.

☐ a. Tier 1A ☒ b. Tier 1B ☐ c. Tier 1C ☐ d. Tier 2

☐ 6. Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114. Specify Program (check one):

☐ a. CERCLA ☐ b. HSWA Corrective Action ☐ c. Solid Waste Management
☐ d. RCRA State Program (21C Facilities)

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial IRA Written Plan (if previously submitted): _____ (MM/DD/YYYY)

☐ 2. Submit an **Initial IRA Plan**.

☐ 3. Submit a **Modified IRA Plan** of a previously submitted written IRA Plan.

☐ 4. Submit an **Imminent Hazard Evaluation** (check one)

☐ a. An Imminent Hazard exists in connection with this Release or Threat of Release.

☐ b. An Imminent Hazard does not exist in connection with this Release or Threat of Release.

☐ c. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.

☐ d. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.

☐ 5. Submit a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard**.

☒ 6. Submit an **IRA Status Report**.

☐ 7. Submit an **IRA Completion Statement**.

☐ a. Check here if future response actions addressing this Release or Threat of Release notification condition will be conducted as part of the Response Actions planned or ongoing at a Site that has already been Tier Classified under a different Release Tracking Number (RTN). When linking RTNs, rescoring via the NRS is required if there is a reasonable likelihood that the addition of the new RTN(s) would change the classification of the site.

b. State Release Tracking Number of Tier Classified Site (Primary RTN): 3 - 13302

These additional response actions must occur according to the deadlines applicable to the Primary RTN. Use the Primary RTN when making all future submittals for the site unless specifically relating to this Immediate Response Action.

☐ 8. Submit a **Revised IRA Completion Statement**.

(All sections of this transmittal form must be filled out unless otherwise noted above)





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 19485

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

- ☐ a. Air ☐ b. Basement ☐ c. Critical Exposure Pathway ☐ d. Groundwater ☐ e. Residence
☐ f. Paved Surface ☐ g. Private Well ☐ h. Public Water Supply ☐ i. School ☒ j. Sediments
☐ k. Soil ☐ l. Storm Drain ☒ m. Surface Water ☐ n. Unknown ☒ o. Wetland ☒ p. Zone 2
☐ q. Others Specify: _____

2. Identify Oils and Hazardous Materials Released: (check all that apply)

- ☒ a. Oils ☐ b. Chlorinated Solvents ☒ c. Heavy Metals
☒ d. Others Specify: PCBs.

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply. for volumes list cumulative amounts)

- | | |
|--|---|
| <input checked="" type="checkbox"/> 1. Assessment and/or Monitoring Only | <input type="checkbox"/> 2. Temporary Covers or Caps |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 4. Temporary Water Supplies |
| <input type="checkbox"/> 5. Structure Venting System | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input type="checkbox"/> 7. Product or NAPL Recovery | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 9. Groundwater Treatment Systems | <input type="checkbox"/> 10. Soil Vapor Extraction |
| <input type="checkbox"/> 11. Bioremediation | <input type="checkbox"/> 12. Air Sparging |
| <input type="checkbox"/> 13. Excavation of Contaminated Soils | |

☐ a. Re-use, Recycling or Treatment ☐ i. On Site Estimated volume in cubic yards _____

☐ ii. Off Site Estimated volume in cubic yards _____

ii.a. Facility Name: _____ Town: _____ State: _____

ii.b. Facility Name: _____ Town: _____ State: _____

iii. Describe: _____

☐ b. Store ☐ i. On Site Estimated volume in cubic yards _____

☐ ii. Off Site Estimated volume in cubic yards _____

ii.a. Facility Name: _____ Town: _____ State: _____

ii.b. Facility Name: _____ Town: _____ State: _____





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 19485

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

☐ c. Landfill

☐ i. Cover Estimated volume in cubic yards _____

Facility Name: _____ Town: _____ State: _____

☐ ii. Disposal Estimated volume in cubic yards _____

Facility Name: _____ Town: _____ State: _____

☐ 14. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount: _____

b. Facility Name: _____ Town: _____ State: _____

c. Facility Name: _____ Town: _____ State: _____

☐ 15. Removal of Other Contaminated Media:

a. Specify Type and Volume: _____

b. Facility Name: _____ Town: _____ State: _____

c. Facility Name: _____ Town: _____ State: _____

☐ 16. Other Response Actions:

Describe: _____

☐ 17. Use of Innovative Technologies:

Describe: _____





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 19485

E. LSP SIGNATURE AND STAMP :

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

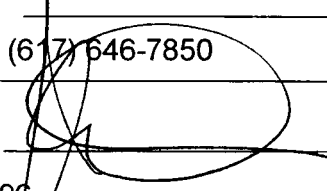
> if Section B of this form indicates that an **Immediate Response Action Plan** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Imminent Hazard Evaluation** is being submitted, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and the assessment activity(ies) undertaken to support this Imminent Hazard Evaluation complies(y) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

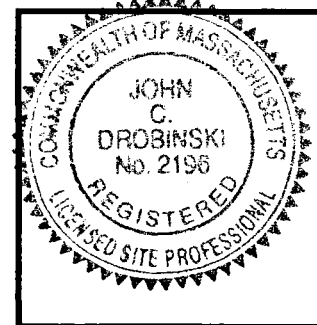
> if Section B of this form indicates that an **Immediate Response Status Report** is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Immediate Response Action Completion Statement** or a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

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.

1. First Name: John 2. Last Name: Drobinski
3. Telephone: (617) 646-7850 4. Ext.: _____ 5. FAX: (617) 267-6447
6. Signature:  7. Date: 10/27/03
8. LSP #: 2196

9. LSP Stamp:





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - **19485**

F. PERSON UNDERTAKING IRA:

1. Check all that apply: ☐ a. change in contact name. ☐ b. change of address ☐ c. change in the person undertaking response actions
2. Name of Organization: Raytheon Company
3. Contact First Name: Edwin 4. Last Name: Madera
5. Street: 528 Boston Post Road, MS 1880 6. Title: Sr. Environmental Engineer
7. City/Town: Sudbury 8. State: MA 9. ZIP Code: 01776-0000
10. Telephone: (978) 440-1813 11. Ext.: _____ 12. FAX: (978) 440-2176

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA:

- ☒ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter
☐ e. Other RP or PRP Specify: Former Owner
- ☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- ☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- ☐ 4. Any Other Person Undertaking IRA Specify Relationship: _____

H. REQUIRED ATTACHMENT AND SUBMITTALS:

- ☐ 1. Check here if any Remediation Waste, generated as a result of this IRA, will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement. If this box is checked, you must submit one of the following plans, along with the appropriate transmittal form.
☐ A Release Abatement Measure (RAM) Plan (BWSC106) ☐ Phase IV Remedy Implementation Plan (BWSC108)
- ☐ 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
- ☒ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the implementation of an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of a Completion Statement for an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 5. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Address/Location Aid. Send corrections to the DEP Regional Office.
- ☒ 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 19485

I. CERTIFICATION OF PERSON UNDERTAKING IRA:

1. I, Edwin P. Madera

, 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 transmittal form, (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 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.

2. By: Edwin P. Madera Signature 3. Title: Sr. Environmental Engineer

4. For: Raytheon Company (Name of person or entity recorded in Section F) 10/24/03 (mm/dd/yyyy)

☐ 5. Check here if the address of the person providing certification is different from address recorded in Section F.

6. Street: _____

7. City/Town: _____ 8. State: _____ 9. ZIP Code: _____

10. Telephone: _____ 11. Ext.: _____ 12. FAX: _____

**YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY
RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU
MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.**

Date Stamp (DEP USE ONLY:)

