

Raytheon Company

**Spill Prevention Control and  
Countermeasures Plan**  
*Former Raytheon Facility  
430 Boston Post Road  
Wayland, Massachusetts*

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143.65

**Environmental Resources Management**  
399 Boylston Street, 6<sup>th</sup> Floor  
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**Figure 2**      *Facility Plan (Main Text)*

This Spill Prevention and Control Countermeasures (SPCC) Plan was prepared for the remedial investigation and remedial solution implementation activities at the former Raytheon facility in Wayland, Massachusetts. The anticipated activities include drilling of monitoring wells, implementation of chemical oxidation and excavation of wetland soil/sediment in accordance with the requirements of the Phase IV Remedy Implementation Plan and the Massachusetts Contingency Plan (MCP), 310 CMR 40.000.

This SPCC Plan applies to MCP activities. This plan is not intended to cover any manufacturing or facility activities. The Massachusetts Department of Environmental Protection (MA DEP) tracks this Site under Release Tracking Number (RTN) Tier IB Permit No. 133939. The Site location is shown on Figure 1.

Raytheon utilized the Site from 1955 to 1995 for electronic testing and chemical process research to support in-house prototype manufacturing. In 1995, Raytheon ceased operations and decommissioned the facility. The purpose of the assessment was to evaluate the potential for past release(s) of OHM to soil and/or ground water associated with historic facility operations. Identification of impacts to Site soil and ground water prompted notification of a release of OHM to the MA DEP in January 1996. Subsequent assessment and remedial actions proceeded in order to satisfy requirements of the MCP (310 CMR 40.0000).

In accordance with MCP requirements, a Phase I - Initial Site Investigation (Phase I) Report was filed with the MA DEP on 20 May 1996 (updated 30 January 1997). The Site was subsequently Tier Classified in May 1997 as a Tier IB "Disposal Site" and issued a permit (No. 133939) from the MA DEP to conduct additional assessment and remedial response actions under Phase II.

A Phase II Comprehensive Site Assessment Report, dated 28 November 2001, was prepared to document the nature and extent of contamination at the Site and to evaluate potential risks. Phase II results indicated that chlorinated Volatile Organic Compounds (VOCs) were present in both of the overburden aquifers and that wetland soil/sediment was impacted by Polychlorinated Biphenyls (PCBs), Polycyclic Aromatic Hydrocarbons (PAHs) and heavy metals.

A Phase III Remedial Action Plan, dated 28 November 2001, was prepared to evaluate and select a remedial alternative. The Phase III evaluation concluded that chemical oxidation was the preferred remedy to mitigate the migration of the VOC plume and that excavation impacted wetland soil/sediment was the preferred remedy to remediate the wetland area.

The intent of Phase IV is to abate impacts to Site wetlands soil/sediment and groundwater that potentially pose risk, as identified in the Phase II-Comprehensive Site Assessment (Phase II; ERM, 2001). The technologies proposed for implementation as part of Phase IV are those selected in the Phase III-Remedial Action Plan (Phase III; ERM, 2001).

## 2.0 *SITE DESCRIPTION*

### 2.1 *SITE LOCATION*

The Site is located at the former Raytheon facility in Wayland, Massachusetts. A Site location map is provided as Figure 1. The Sudbury River borders the Site to the west and Route 27 borders the Site to the east. The Great Meadows National Wildlife Refuge abuts the Site to the north. Access to the Site is via Boston Post Road (Route 20) to the south. Based on review of applicable United States Geologic Survey (USGS) topographic maps, the approximate geographic coordinates of the Site are 42° 21' 30.5" north latitude and 71° 22' 19.6" west longitude (TRCC, 1991). The approximate Universal Transverse Mercator (UTM) coordinates of the Site are Zone 19 304800 E 4692800 N (Figure 1).

### 2.2 *SITE ACTIVITIES*

Potential Site activities that will be taking place that are applicable under this plan may include:

- Drilling groundwater monitoring wells and groundwater injection wells
- Injecting chemical oxidant into groundwater
- Conducting groundwater monitoring activities and pumping tests
- Excavating approximately 3,700 yd<sup>3</sup> of wetland soil/sediment
- Restoring disturbed wetland area

### 2.3 *FACILITY DRAINAGE*

The portion of the Site that borders the Sudbury River is the area of concern. The area in which the chemical oxidation is to be conducted is a paved parking lot. The topography of the parking lot is relatively flat. Stormwater runoff from the parking lot is potentially toward Sudbury River.

The surface water drainage at the facility is identified on Figure 2 and consists of 40 catch basins located throughout the Site. Some catch basins are located in the vicinity of potential investigative and remedial areas. Drainage from the asphalt-paved parking lot is collected in the catch basins and then flows northwest to the discharge point at the wetland boundary adjacent to the Sudbury River.

Activities in the wetland are limited to excavation and restoration of the wetland. Heavy equipment will be used in the wetland, which is an activity of concern.

The following security measures are in place at the facility:

- The Site is currently an office development and does not require 24-hour security
- A fence has been installed between the facility parking area and the wetland to limit trespasser access
- Additional security measures will be implemented as needed



## 4.0 *SPILL PREVENTION MEASURES*

### 4.1 *STORAGE FACILITIES*

#### 4.1.1 *Bulk Storage*

No bulk storage of hazardous chemicals is proposed during remedial activities.

#### 4.1.2 *Container Storage*

The majority of hazardous materials to be brought on-site for the field work will be fuel for the drill rig and vector truck and small amounts of fuel to power generators for pumping wells.

Potassium permanganate and sodium permanganate are the chemical oxidants to be injected in the subsurface. Concentrated forms of the oxidant will be received on-site. The oxidants will be diluted with town water during the injection process. The oxidant will be temporarily stored on-site during the injection. Long-term storage of the oxidant is not anticipated.

Small quantities of hazardous chemicals (methanol) used for decontamination of drilling and monitoring equipment will be stored in small quantities (e.g., <1-gallon containers) and within the field vehicles.

Contaminated soils and groundwater that are generated during investigative activities will be collected in 55-gallon drums, roll-offs or cubic yard T-Packs for off-site treatment or disposal.

In order to minimize the potential for spills from the storage of hazardous materials, the following spill prevention measures will be in place:

- All containers containing hazardous materials will have secondary containment, which is capable of holding 110% of the volume of any one container in an area
- Spill response material will be located in close proximity to the container storage to allow for fast response and to minimize the impacts of any spills

- In instances when drill rigs or other trucks are to be fueled, they will be fueled off-site when possible. If that is not possible, spill control material will be in close proximity of the re-fueling and an ERM observer will monitor the task to insure that the tanks are not overfilled

ERM will ensure that all of its employees are fully briefed on the contents of this SPCC Plan prior to working at the facility.

ERM employees will be limited to first-response actions, such as:

- Notifying Site/Task Manager
- Notifying a cleanup contractor, if directed by Site/Task Manager
- Placing absorbent material to limit the impacts of any spills

Formal spill response and cleanup will be performed by spill response contractors for those spills beyond the capability of the Site staff to appropriately and safely respond to. In general, spills greater than 10-gallons or spills of extremely hazardous materials should be handled by qualified spill response contractors. The spill response contractors designated to respond to a hazardous material spill will have training in proper emergency response procedures. This training will generally include:

- Spill contingency procedures as defined by Occupational Safety and Health Administration (OSHA) in 29 CFR 1910.120
- Proper use and disposal of all cleanup materials

Designated Site personnel will coordinate with subcontractors to perform emergency response procedures. A qualified emergency response contractor will be retained to take response actions above and beyond the training expertise of on-site personnel when spill conditions warrant such actions.

6.0 *SPILL REPORTING, RESPONSE AND CLEANUP*

6.1 *REPORTABLE SPILLS*

Discharges of OHM to the environment should be reported immediately to the Massachusetts Department of Environmental Protection (MA DEP) or state police.

The following table identifies various agencies/individuals, which may need to be notified in the event of a spill:

*Table 1. Emergency Notification Numbers.*

Authority to Contact	Reason for Contact	Telephone Number
MA DEP Regional Office	Hazardous Material spills to land or water (during regular working hours (9-5))	(978) 661-7681
State Police Communications Center	Hazardous Material spills to land or water (during non-working hours)	(888) 304-1133
Coast Guard	Hazardous Material spill to water	(617) 223-8480
Site/Task Manager	Hazardous Material spills to land or water (during regular working hours (9-5))	(617) 267-8377
Cyn Environmental	Emergency cleanup assistance	(800) 242-5818
Wayland Police and Fire Departments	Emergency notification	911

6.2 *SPILL REPORTING*

Following an accidental release, a report shall be made out by the Raytheon Site representative and/or qualified designee. The report shall contain the following information:

- Names, addresses and telephone numbers of those directly involved, including clean-up contractors
- Exact location of release, facility name, location, and owner

- Source of release
- Material released and estimated quantity
- Closest body of water to release and distance to surface water
- Brief summary of what happened, date and time of occurrence, and names of observers
- Action taken for cleanup
- Agencies notified

A copy of the accidental release report shall be sent to the MA DEP as well as the Wayland Fire Department.

### 6.3 *SPILL RESPONSE*

In the event of a spill, the ERM Site safety coordinator and/or their qualified designee will immediately direct all non-response personnel to remain in a safe location away from the spill site. The ERM Site safety coordinator and/or their designee will then immediately assess the magnitude of the spill and take appropriate actions to contain the spill. Particular care will be taken to ensure that no spilled materials run onto unpaved surfaces, into the Sudbury River or enter the stormwater drains.

The following specific containment and cleanup information is provided:

#### *Minor Spills (< 10 gallons)*

1. Prevent the spill from reaching the Sudbury River or stormwater drains by using absorbent pads/mats or an absorbent material.
2. Remediate the spill area according to all local, state, and federal regulations.

#### *Major Spills (> 10 gallons)*

1. Contain the spill or release to the smallest area possible using booms or any other effective barriers.
2. Notify Wayland Business Center immediately. They will in turn notify the appropriate officials and agencies as necessary. It will be the responsibility of the Raytheon Site Manager and/or his designee to ensure all appropriate notifications are made.

3. In the event that additional emergency cleanup assistance is required, Raytheon will request assistance from an appropriate response contractor (e.g., Cyn Environmental).
4. The emergency response contractor shall collect all hazardous waste discharged, including absorbent materials and contaminated booms. All cleanup materials shall be disposed of in accordance with all applicable hazardous waste regulations.
5. All reusable emergency equipment (e.g., personal protection equipment) will be decontaminated.
6. All contaminated wash water, waste solutions or residues generated during cleanup shall be collected and disposed of as hazardous waste, in compliance with all applicable local, state and federal regulations.
7. Raytheon and ERM shall keep all records relating to the spill of hazardous materials for a period of at least three years after the spill has been cleaned up or for such longer periods of time as required in any unresolved enforcement actions.

#### 6.4 *SPILL RESPONSE EQUIPMENT*

Spill response equipment maintained at the Site will include:

- Absorbent pads and mats
- Loose absorbent materials
- Containment booms
- Personal protection equipment (Level D, including protective suits, gloves and boots)
- Fire extinguishers
- First aid supplies

All of the above equipment shall be maintained and inspected monthly.