

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND - REGION I  
1 CONGRESS STREET, SUITE 1100 - HBR  
BOSTON, MA 02114-2023**

**DATE:** July 23, 2007

**SUBJ:** Site Investigation Closure Memorandum  
Providence Barrel Site  
17 Oak Street  
Smithfield, Rhode Island 02917

**FROM:** Mia C. Pasquerella, On-Scene Coordinator  
Emergency Response and Removal Section II, EPRB, OSRR

**THRU:** Steven R. Novick, Chief  
Emergency Response and Removal Section II, EPRB, OSRR

**TO:** Providence Barrel Site File

In accordance with section 300.410 of the National Contingency Plan (NCP), a Removal Site Evaluation, consisting of a Preliminary Assessment and Site Investigation (PA/SI), has been undertaken at the Providence Barrel Site ("Site") in Smithfield, Rhode Island. The findings of the Removal Site Evaluation have been evaluated under the criteria set forth in section 300.415 of the NCP, section 104(a) and (b) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. § 9604(a) and (b) and Clean Water Act (CWA) § 311(c)(i) as amended by the Oil Pollution Act (OPA) § 4201(a). The Removal Site Evaluation has led to the determination that a Removal Action is appropriate at this time.

The findings of the Removal Site Evaluation are outlined below.

1. Source and nature of the release or threat of release
  - a. The Removal Site Evaluation consisted of the following actions.
    - i. Review of analytical results generated by Rhode Island Department of Environmental Management (RIDEM) and the Superfund Technical Assistance and Response Team (START).
    - ii. The Site Investigation on September 13, 2005, October 4 and 5, 2005, and February 15, 2006.
    - iii. Generating a PA/SI report by EPA's contractor, titled "Removal Program Preliminary Assessment / Site Investigation (PA/SI) Report for the Providence Barrel Site."
  - b. Based on the information available at this time, the principal hazardous substances or pollutants or contaminants that are being released or for which there is threat of release include but are not necessarily limited to the list below.

		CONCURRENCES					
SYMBOL	SER II						
SURNAME	Pasquerella						
DATE	07/23/07	7/25/07					

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  - b. Based on the information available at this time, the principal hazardous substances or pollutants or contaminants that are being released or for which there is threat of release include but are not necessarily limited to the list below.

Hazardous Substances or Pollutants or Contaminants	Media
Lead	Surface Soil
Arsenic	Surface Soil
Semi-Volatile Organic Compounds (SVOC's)	Surface Soil
Trichloroethylene (TCE)	Surface Soil/Groundwater

2. Evaluation of the threat to public health, welfare and the environment

a. Federal Agency for Toxic Substances and Disease Registry:

Threat \_\_\_\_\_ No Threat \_\_\_\_\_ Evaluation Not Necessary X

b. Endangerment to the ecosystem:

Threat \_\_\_\_\_ No Threat \_\_\_\_\_ Evaluation Not Necessary X

3. The Removal Site Evaluation was terminated pursuant to section 300.410(f) of the NCP for the following reason(s).

- There is no release.
- The source is neither a "vessel" nor a "facility" as defined in section 300.5 of the NCP.
- The release involves neither a hazardous substance, nor a pollutant or contaminant that may present an imminent and substantial danger to public health or welfare of the United States.
- It is subject to the limitations on response specified in §300.400(b)(1) through (3).  
The release is
  - of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found.
  - from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures.
  - into public or private drinking water supplies due to deterioration of the system through ordinary use.

- The amount, quantity, or concentration released does not warrant a Federal response.
  - A party responsible for the release, or any other person, is providing appropriate response, and on-scene monitoring by EPA is not required.
  - The Removal Site Evaluation is complete.
4. As reflected in Section 3, above, the Removal Site Evaluation was terminated due to its completion, and not for other reasons.
- a. The factors listed below, found in Section 300.415(b)(2) of the NCP, are applicable to this Site.
- Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.
  - Actual or potential contamination of drinking water supplies or sensitive ecosystems.
  - Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.
  - High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.
  - Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.
  - Threat of fire or explosion.
  - The availability of other appropriate Federal or State response mechanisms to respond to the release.
  - Other situations or factors that may pose threats to public health or welfare of the United States or the environment.

The existence of the conditions specified in Section 4.a., above, indicate that a Removal Action under section 300.415 of the NCP is necessary. The surface and subsurface soil samples taken during the PA/SI indicate elevated levels of lead, arsenic and various semi-volatile organic compounds (SVOC's) and volatile organic compounds (VOC's) including trichloroethylene (TCE). The groundwater samples taken by the RIDEM in 2004 indicate elevated levels of TCE on the property. The extent of the groundwater contamination is currently undefined.

The location of the former facility site is bordered by residential properties to the north, east, and west, and to the south by the United States Granular building. Depth to bedrock is greater than 38 ft below ground surface (bgs) and depth to groundwater on-site is approximately 20 ft bgs. Groundwater flow direction is to the east toward the Woonasquatucket River and to the southeast towards the United States Granular property. Groundwater in the vicinity of the Site is classified as GA, which means that the groundwater may be suitable for public or private drinking water without treatment. The area is currently on public water supply. The public water supplies for the towns of Smithfield, Lincoln, Johnston, and North Providence are derived from the Scituate Reservoir, which lies approximately 5.5 miles to the southwest of the Site.

The area serves as a source for contamination to the surrounding residents as a direct contact threat through surface soils, via airborne soil particles, and the potential for groundwater/drinking water issues. Due to the proximity of the residential properties, there is also the potential for vapor intrusion. Access to the area remains unrestricted. Therefore, a Removal Action is warranted at this time.

- b. In light of the magnitude of the threat or potential threat to health, welfare, or the environment, the appropriate categorization of a Removal Action at this Site is:

Emergency\_\_\_\_ Time-Critical X Non Time-Critical\_\_\_\_

5. As reflected in Section 3, above, the Removal Site Evaluation was terminated due to its completion, and not for other reasons.

- a. As found in section 300.410(e)(1) of the NCP, the OSC shall determine whether a release governed by CWA section 311(c)(1), as amended by OPA section 4201(a), has occurred.

( ) There is a release, or potential threat of release, as governed by the CWA as amended by OPA.

(X) There is not a release, or potential threat of release, as governed by the CWA as amended by OPA.

- b. The absence of the conditions specified in Section 5.a., above, indicate that an Oil Spill Response under Appendix E to Part 300 of the NCP **is not** necessary. The available reports, data, and PA/SI did not indicate the presence of oil on the property. Therefore this site does not involve OPA at this time.

cc: Steven Novick, Chief, Emergency Response and Removal Section II, OSRR  
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