



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

May 11, 2011

Mr. Thomas E. Deller  
Director  
Providence Redevelopment Agency  
Department of Planning & Development  
400 Westminster Street  
Providence, RI 02903

RE: Gorham - Parcel C (Formerly a portion of the Gorham/Textron Dump site)  
333 Adelaide Avenue, Providence, RI  
Case No. 2004-014 (Formerly part of Case No. 97-030)

Dear Mr. Deller:

On February 24, 2004, the Rhode Island Department of Environmental Management (the Department) amended the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations). The purpose of these regulations is to create an integrated program requiring reporting, investigation and remediation of contaminated sites in order to eliminate and/or control threats to human health and the environment.

In the matter of the above referenced "Site" (as defined in the Industrial Property Remediation and Reuse Act), the Department's Office of Waste Management (OWM) has received the following document submitted on behalf of the Providence Redevelopment Authority (PRA):

1. Remedial Action Work Plan, Parcel C, Former Gorham Manufacturing Property, 425 Adelaide Avenue, Providence, Rhode Island (RAWP), prepared by VHB/Vanasse Hangen Brustlin, Inc. (VHB), and dated August 26, 2010.

The Department has also received the following documents from interested parties providing public comments and recommendations on the proposed RAWP:

2. Letter from the Environmental Justice league of Rhode Island (EJLRI) to the Department, dated September 21, 2010; and
3. Technical Review of Proposed Remedial Action Work Plan, Parcel C, Former Gorham Site, 425 Adelaide Avenue, Providence, Rhode Island, prepared by GEI Consultants, Inc. (GEI), and dated October 19, 2010.

The Department has completed its review of the proposed RAWP for consistency with Sections 8.00 (Risk Management) and 9.00 (Remedial Action Work Plan) of the Remediation Regulations. Based upon that review and in consideration of the subsequently received submittals from the public, as well as related matters discussed at our May 5, 2011, meeting with representatives of the PRA, the Department has the following comments:

Gorham - Parcel C (Formerly a portion of the Gorham/Textron Dump site)  
425 Adelaide Avenue, Providence, RI  
Remedial Action Work Plan – Comments

Page 1 of 8  
May 11, 2011  
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1. Based upon recent conversations with PRA representatives, the Department understands that the PRA desires to implement the capping of Parcel C in two phases, starting first with the proposed parking lot on the southern portion of the parcel, and followed later as funding becomes available by a combination of recreational fields and open space on the remaining northern portion of the parcel. Therefore, please revise the applicable sections of the draft RAWP (i.e. Proposed Redevelopment, Engineered Cap/Barrier, Points of Compliance, Proposed Schedule, Sedimentation and Erosion Control, Security Procedures, Compliance Determination, etc.) to reflect this proposed phased approach.
2. Regarding RAWP Section 3, page 5, item 1, it should be noted and clarified that Textron, Inc. (Textron) is conducting a Department approved in-situ groundwater treatment program on Parcel A at the former Building W location in the southern portion of the Gorham Site (near Adelaide Avenue), and not on the western portion of the Gorham Site or anywhere on Parcel C at this time.
3. Regarding RAWP Section 3, page 5, item 4, with regard to the reuse of the soil stockpile as sub-base under engineered control caps at the Site, the Department understands that it is the PRA's position that the currently existing natural layer of vegetation growth and rock covering the soil pile is providing a sufficiently stable temporary cover for dust control until redevelopment, and would prefer to maintain the natural cover rather than stripping the vegetation from the pile and applying a layer of polyethylene/plastic sheeting at this time. As such, the vegetation cover must be maintained in good condition to prevent the generation of fugitive dust or erosion. If the vegetated cap is disturbed or cannot be maintained in good condition, then the pile must be covered with a stable temporary cover for dust and erosion control until either utilized in redevelopment or disposed of at an appropriately licensed off site disposal facility.
4. Regarding RAWP Section 4 (Remedial Objectives – Soil), page 8, it should noted and clarified that all proposed engineered controls shall provide a level of protection equivalent to a minimum of two feet of clean soil. In addition, please be reminded that all engineered controls installed over areas known or suspected to be subject to the Solid Waste Regulations, and under the jurisdiction of the Department's Solid Waste Program (i.e. all engineered caps installed over known fill areas), must be constructed of a minimum of two (2) feet of clean material. A geotextile and one (1) foot of clean fill are not acceptable in those areas. If asphalt paving is proposed over an area of fill jurisdictional to the Solid Waste Program, and there is a minimum of one (1) foot of separation between the solid waste and the ground surface, then an engineered control cap consisting of four (4) inches of asphalt over six (6) inches of clean base coarse material may be used. If however there is less than one (1) foot of separation between the solid waste and the ground surface, then 18 inches of clean base coarse should be used under the four (4) inches of asphalt.
5. Regarding RAWP Section 4 (Remedial Objectives – Groundwater), page 8:
  - a. It should noted and clarified that the only Method 1 GB Groundwater Objective exceedance measured on Parcel C is located on the northern end of the parcel at the

location of MW-D, and the in-situ remediation performed by Textron to date has been limited to Parcel A.

- b. It is stated that the *“existing monitor wells will be preserved and will be extended to the new ground surface.”* The next line of text states that *“however, any monitor well(s) within the footprint of the proposed lawn area/open space will be closed.”* The area of proposed open space contains all but one of the currently existing monitoring wells. At this time all existing monitoring wells must be maintained and extended to meet the new ground surface until the ongoing groundwater assessment and eventual groundwater remediation has been completed. As Textron is conducting the site wide groundwater assessment and remediation activities, please coordinate any activity that will impact existing wells with their representatives and provide them with any requested modification information (e.g. new elevation of the top of casing, etc.).

6. Regarding RAWP Section 4 (Engineered Cap/Barrier), page 9:

- a. Consistent with comment 5 above, please revise this section to indicate that all engineered controls installed over areas known or suspected to be subject to the Solid Waste Regulations, and under the jurisdiction of the Department’s Solid Waste Program (i.e. all engineered caps installed over known fill areas), must be constructed of a minimum of two (2) feet of clean material.
- b. Please provide a revised site figure clearly depicting the extent of each type of proposed engineered control cap, and incorporating the requirements of preceding comment 7.a.
- c. Please provide a figure depicting cross sectional drawings of each of the proposed engineered controls, and indicating the type and qualities of each material selected to comprise the layers of each cap as applicable (e.g. drainage capability, soil appropriate for proposed site plantings, etc.).
- d. Please provide an estimate of the anticipated volumes of clean material to be imported to the site and regulated material to be removed from the site for proper off site disposal at a licensed facility.

7. Regarding RAWP Section 4 (Proposed Schedule), page 10, it is stated that the *“Providence Redevelopment Authority is prepared to implement the remedial action plan upon receiving a Remedial Approval Letter. The remedial activities will be completed concurrently with the site redevelopment construction which is likely to begin in Fall 2010.”* The Department understands that the PRA has expressed concerns about funding for the project. Please update this section to reflect the currently proposed phased redevelopment and anticipated schedule moving forward.

8. Regarding RAWP Section 4 (Dust Control), page 10:

- a. Dust control measures should include regular application of water to the work area or any area of soil disturbance on an as needed basis and not be limited to two (2) times per day.
  - b. In addition to the use of water, due to the proximity of the neighboring residents to the remediation area, some type of ‘dust screens’ should be used on the fencing (i.e. tarps, filter fabric or other similar material covering the fence and secured with hay bales at the foot of the fence) to mitigate fugitive dust during excavation or any site disturbance activities. **These screens should be inspected and if necessary, repaired every morning prior to the commencement of field activities.**
  - c. The RAWP must include a program of real-time perimeter dust monitoring and control consistent with what was approved for the previous Parcel C YMCA RAWP, and the Parcel B Limited RAWP and final RAWP approvals.
9. Regarding RAWP Section 4 (Sedimentation and Erosion Control), page 10, the work proposed in the draft RAWP is jurisdictional to the Department’s Office of Water Resources (OWR) Freshwater Wetlands Program, under the Department’s Rules and Regulations for Governing the Administration and Enforcement of the Fresh Water Wetlands Act (Wetlands Regulations). The Department understands that the Insignificant Alteration Permit received on August 2, 2005, for the work associated with the formerly proposed development of a YMCA facility on Parcel C has expired. Please be advised that this project is also subject to the requirements of the Department’s December 28, 2010, Stormwater Design and Installation Standards Manual, particularly Rule 3.2.8, Minimum Stormwater Management Standard 8: Land Uses with Higher Potential Pollutant Loads (LUHPPLs). All stormwater discharges from LUHPPLs require the use of specific source control and pollution prevention measures and specific stormwater best management practices (BMPs) approved for such uses. The LUHPPL associated with this project will also require a Rhode Island Pollutant Discharge Elimination System (RIPDES) Multi-Sector General Permit (MSGP), which includes its own sector-specific required BMPs. In general, stormwater runoff from a LUHPPL may not be recharged to groundwater unless it is adequately treated, and no infiltration shall be allowed through subsurface contamination (unless preceded by removal and replacement with clean material in the location of the proposed infiltration). If it is determined that infiltration is not appropriate, other Low Impact Development (LID) practices can be used, as long as they are lined. The Department therefore recommends scheduling a pre-application meeting with the Office of Technical and Customer Assistance (OTCA) in order to facilitate the permitting process.
10. Regarding RAWP Section 4 (Operations Log), page 11, please include the following on the list of items to be logged in:
- a. Dates and time periods of all material brought to the site and where it is used.
  - b. Dates and time periods of all material removed from the site and where is to be taken.

- c. Dates and time periods of any complaints received regarding activities at the site, including complete descriptions of complaint resolution actions.
- d. Dates and time periods of any repair activities (e.g. fencing, signs, hay bales, silt fencing, dust screens, etc.)

11. Regarding RAWP Section 4 (Security Procedures), page 11:

- a. The perimeter fencing and signage must be maintained in good repair to assure site security and restrict unauthorized entry. Maintenance must include periodic inspections and prompt repairs of noted deficiencies as necessary, until the Department approved remedial activities on the site are completed. The fencing should be locked at the end of each day as part of the daily shutdown procedures.
- b. The RAWP should include a brief description of plans for traffic control and access routes for construction equipment, delivery and disposal transportation trucks, and decontamination procedures to be implemented for exiting vehicles to assure against tracking of contaminated soil or materials off site.
- c. The RAWP must include a statement indicating the PRA's agreement to allow access to the site to Textron during and after construction to access the existing monitoring wells for the purpose of completing its groundwater investigation and remediation activities as necessary.
- d. The RAWP must include a statement indicating the PRA's agreement to allow access to the site to the Department to observe ongoing activities and provide project oversight as necessary.

12. Regarding RAWP Section 4 (Institutional Controls and Notices), page 12, the list of activities restricted in the Environmental Land Usage Restriction (ELUR) should include the prohibition of construction of any buildings or basements without prior Department approval of a plan which shall include at a minimum an active sub-slab depressurization system with long-term periodic indoor air and sub-slab soil gas sampling and analysis for volatile organic compounds (VOCs) and methane.

13. Regarding RAWP Section 4 (Compliance Determination), page 13:

- a. Please be advised that the form of compliance letter ultimately issued by the Department, following satisfactory completion of all activities in the final Department approved RAWP for this site, will be dependent upon the status of the Parcel C groundwater at that time (i.e. a Letter of Compliance if the groundwater is determined to be compliant, or an Interim-Letter of Compliance if the concentrations of contaminants in groundwater require ongoing treatment and/or monitoring activities).

- b. The annual ELUR certification activities shall be conducted by an Environmental Professional, on behalf of the PRA.

14. Please revise Figure 2 (Site Plan) to include the locations of all existing groundwater monitoring wells located on the parcel.

15. Regarding the draft Environmental Land Usage Restriction (RAWP - Appendix B):

- a. The reference to petroleum in paragraphs three (3) and six (6) on page 1 should be restored as analytical testing detected total petroleum hydrocarbons (TPH) in soils at the site.
- b. Section A (Restrictions Applicable to the Property) must include a restriction of construction of any buildings or basements without prior Department approval of a plan which shall include at a minimum an active sub-slab depressurization system with long-term periodic indoor air and sub-slab soil gas sampling and analysis for volatile organic compounds (VOCs) and methane.
- c. Section A (Restrictions Applicable to the Property) Item vii, indicates that the engineered controls are described in the Soil Management Plan (SMP), but review of the SMP indicates that there is no included corresponding description of the engineered controls.

16. Regarding the draft Soil Management Plan (RAWP - Appendix B):

- a. The SMP should include an introduction that describes the remedy implemented at the site, provides details of all of the remedial components, and references an attached site figure which accurately depicts the location of each remedial component (e.g. in this case the aerial extent of each type of engineered control installed).
- b. As stated in comment 16.c. above, the ELUR references the engineered controls described in the SMP, but the SMP does not include a description of the engineered controls. A complete and comprehensive description of the final Department approved engineered controls should be included in the final version to the SMP.
- c. In paragraph 2, SMP page 1, the list of Contaminants of Concern with regard to direct exposure should include TPH as it was detected in site soils. This paragraph should also briefly mention existing VOC contamination in site groundwater which could be encountered during drilling or deeper excavation activities.
- d. In paragraph 4, SMP page 1, the text discussing "*potential for worker exposure to petroleum-impacted media*" should be revised to include hazardous material and/or petroleum-impacted media.

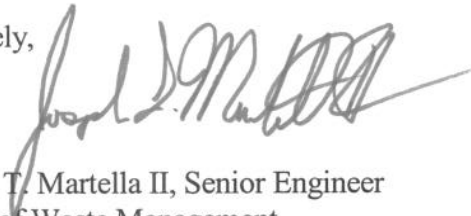
- e. Regarding the Section titled Site Operating Procedures/Safety Guidelines, SMP page 2, the list of guidelines should include air monitoring for respirable dust and real-time gas meter readings that include monitoring of explosive limits calibrated to detect methane.
- f. Regarding the Section titled Soil Management Guidelines:
- i. The third bulleted item, SMP page 3, indicates that *“The stockpiling and disposal procedures detailed in this plan apply only to excess soil which cannot be used as backfill in the original excavation from which it came.”* This needs to be clarified to indicate that all regulated soil that is disturbed must be managed in an appropriate manner including, but not limited to, temporary containment or placement on polyethylene sheeting, covering with polyethylene sheeting, secured with appropriate controls to limit the loss of the cover and protect against storm-water and/or wind erosion (i.e. hay bales, silt fencing, rocks, etc), segregation from clean material, dust control, and odor control (if necessary).
  - ii. Regarding the fifth bulleted item, SMP page 4, this item should be revised to indicate that if excessive dust generation occurs and cannot be reasonably controlled, all work activities responsible for generating the dust shall be stopped until appropriate weather conditions occur or means to adequately control the dust is employed. During all site/earth work, dust suppression (i.e. watering, etc) techniques must be employed at all times. If it is anticipated due to the nature of the contaminants of concern that odors may be generated during site activities, air monitoring and means to control odors will be utilized, as appropriate (i.e. odor-suppressing foam, etc).
  - iii. Regarding the seventh bulleted item, SMP page 4, this item should be revised to indicate that all soils removed from the site must be properly shipped and disposed at an appropriately licensed disposal facility in accordance with all local, state, and federal laws.
  - iv. Please add the following items to the list of bulleted guidelines:
    1. During all site work, the appropriate precautions will be taken to restrict unauthorized access to the property.
    2. An Environmental Professional must be on site during any and all activities which involve the movement and/or disturbance of regulated soil.
    3. Best soil management practices should be employed at all times and regulated soils should be segregated into separate piles (or cells or containers) as appropriate based upon the results of

analytical testing, when multiple reuse options are planned (e.g. reuse on-site vs. off site disposal at a licensed facility), and always segregated from imported clean material. The contents of each segregated stockpile and/or container should be appropriately logged and tracked.

4. In the event that excavated or stockpiled soils pose a risk or threat of leaching hazardous materials, a proper leak-proof container (i.e. drum or lined roll-off) or secondary containment will be utilized.
5. All non-disposable equipment used during the soil disturbance activities will be properly decontaminated as appropriate prior to removal from the site. All disposable equipment used during the soil disturbance activities will be properly containerized and disposed of following completion of the work. All vehicles utilized during the work shall be properly decontaminated as appropriate prior to leaving the site.

If you have any questions regarding this matter or are in need of any clarification regarding this document, please contact me by telephone at (401) 222-2797 x7109 or by e-mail at joseph.martella@dem.ri.gov.

Sincerely,



Joseph T. Martella II, Senior Engineer  
Office of Waste Management  
Department of Environmental Management

cc: Terrence D. Gray, P.E., Assistant Director, RIDEM/AW&C  
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