

## Appendix A

RIDEM Parcels C and C-1 Program Letters, Remedial  
Decision Letters and Orders of Approval

*File*



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-831-5508

**REMEDIAL DECISION LETTER**

June 15, 2001

Mr. Mark Salvetti  
Harding ESE  
107 Audubon Road  
Suite 301  
Wakefield MA 01880

RE: Former Gorham Manufacturing  
Providence RI  
Case No 97-030

Dear Mr. Salvetti:

In August 1996, 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 a timely and cost-effective manner. A Remedial Decision Letter is a formal Department approval of a remedy proposed by the performing party as a result of the findings of the Site Investigation.

In the matter of the above referenced site, the Department has received and reviewed:

1. Site Investigation Summary Report (SIR) for the Former Gorham Manufacturing submitted by Harding Lawson Associates (HLA) on behalf of Textron received September 2, 1999.
2. Responses to RIDEM Comments on Site Investigation Report and Risk Assessment received June 6, 2000
3. Notification to Abutters of Completion of Site Investigation Activities dated October 30, 2000 and received May 1, 2001.

These documents collectively fulfill the requirements of a Site Investigation Report (SIR) as described in Section 7 of the Remediation Regulations. Furthermore, given that appropriate public notice has been conducted pursuant to Rule 7.07 (Public Notice), the Department offers its concurrence with the proposed remedial alternative which includes excavation and asphalt batching

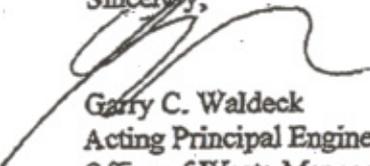
NATURE SAVER™ FAX MEMO 01616		Date	6/21/01	# of pages	3
To	Dave McCabe		From	Mark Salvetti	
Co./Dept.			Co.		
Phone #			Phone #		
Fax #			Fax #		

of soils containing petroleum and metal, treatment of groundwater, placement of a soil, asphalt, and/or buildings cover, groundwater-monitoring and an Environmental Land Usage Restriction (ELUR) and soil management plan.

In accordance with Section 9.0 of the Remediation Regulations, the Department has received and is reviewing a Remedial Action Work Plan associated with the implementation of this remedy. Upon approval of the ELUR, the Department will issue an Order of Approval signifying that the remedial action can begin.

If you have any questions or are in need of any clarification regarding this document, please contact me at (401) 222-2797 ext. 7107.

Sincerely,



Garry C. Waldeck  
Acting Principal Engineer  
Office of Waste Management

cc: Leo Hellested, Chief, RI DEM, Office of Waste Management  
John Langlois, Esq, RI DEM Office of Legal Services  
Dave McCabe, Textron



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

May 24, 2004

**REMEDIAL DECISION LETTER**

**Case No. 2004-014 (Formerly part of Case No. 97-030)**

Ms Susan Rittscher  
President and CEO  
YMCA of Greater Providence  
222 Richmond Street  
Providence, RI 02903

RE: Providence YMCA – Parcel C (Formerly a portion of the Gorham/Textron Dump site)  
333 Adelaide Avenue, Providence, RI

Ms. Rittscher:

On 24 February 2004, the Rhode Island Department of Environmental Management (the Department) enacted the amended Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases, (the Remediation Regulations). A Remedial Decision Letter is a formal Department approval of a conceptual remedy proposed by the performing party as a result of the findings of the Site Investigation.

The Department's Office of Waste Management (OWM) has received the following documents, submitted on behalf of the YMCA of Greater Providence (YMCA), for the purpose of completing the Site Investigation of Parcel C:

1. Site Investigation Report – Additional Assessment Tasks, Providence YMCA – Parcel C, Providence, Rhode Island, prepared by GZA GeoEnvironmental, Inc., (GZA), dated 9 January 2002;
2. Site Investigation Report – Additional Assessment Tasks, Providence YMCA – Parcel C, Providence, Rhode Island, prepared by GZA, dated 29 May 2003, received 27 August 2003;
3. Letter from GZA to the Department, Re: Former Gorham Property, Site Investigation Report, YMCA Development, Providence, Rhode Island, dated 9 February 2004, received 17 February 2004;
4. Letter from GZA to the Department, Re: Response to Comments, Site Investigation Report – Additional Assessment Tasks (Revised), Former Gorham Site (Providence YMCA – Parcel C), Providence, Rhode Island, dated 21 April 2004; and

5. Letter from GZA to the Department, Re: Abutter Notification, Former Gorham Site (Providence YMCA – Parcel C), Providence, Rhode Island, dated 29 April 2004.

In accordance with Section 7 (Site Investigation) of the Remediation Regulations, OWM personnel have reviewed these documents in conjunction with the previously submitted site wide Site Investigation Reports prepared for former property owner, Textron, Inc. (Textron), by Harding Lawson Associates (HLA):

6. Supplemental Site Investigation Report, Proposed Park Subdivision, Former Gorham Manufacturing Property, Adelaide Avenue, Providence, Rhode Island, prepared by HLA, dated 1 December 1998; and
7. Site Investigation Summary Report and Risk Assessment, Former Gorham Manufacturing Property, 333 Adelaide Avenue, Providence, Rhode Island, prepared by HLA, dated 29 July 1999.

These documents fulfill the requirements of a Site Investigation Report (SIR), as described in Section 7 of the Remediation Regulations, for the “main” portion of Parcel C. It is the Department’s understanding that the YMCA intends to complete the SIR for the “campground” portion of Parcel C separately at a later date. Furthermore, given that appropriate public notice for a Site Investigation has been conducted pursuant to Rule 7.07 (Public Notice), as well as appropriate public review and comment pursuant to Rule 7.09 (Remedy Selection), the Department offers its conceptual concurrence with the proposed Remedial Action for the “main” portion of Parcel C.

It is the Department’s understanding that the proposed Remedial Action will incorporate the following items:

- 1) Encapsulation of all regulated site soils through the installation of Department approved engineered controls (including the building foot print, side walks, asphalt parking areas, landscaped areas, or other engineered caps). All engineered controls will provide a level of protection equivalent to a minimum of two feet of clean soil. All engineered controls over areas known or suspected to be subject to the Rules and Regulations for Composting Facilities and Solid Waste Management Facilities (Solid Waste Regulations), and under the jurisdiction of the Solid Waste Program, will consist of a minimum of two feet of clean soil;
- 2) Installation and continuous operation of an active sub-slab ventilation (SSV) system designed to extract soil vapor from under the building, and to prevent the accumulation and/or buildup of methane gas. The SSV system shall also be equipped with an alarm system, and system operation and maintenance will include periodic monitoring of methane levels below the building and in the extracted soil vapor;
- 3) Preparation and submission of a Remedial Action Closure Report documenting the work performed, and including, as applicable, all original laboratory analytical data results from

the remedial activities, disposal documentation, compliance and confirmation sampling, and clean fill sampling;

- 4) An Institutional Control in the form of an Environmental Land Usage Restriction (ELUR) will be recorded in the City of Providence Land Evidence Records at the time of this project's completion and will specify all of the site conditions, restrictions and emergency provisions in order to meet the appropriate Remedial Objectives as defined in the Remediation Regulations. A recorded copy of the Department approved ELUR will be forwarded back to the Office of Waste Management (OWM) within 15 days, prior to the issuance of the No Further Action Letter; and
- 5) Maintenance and annual inspection and certification of the engineered controls and portions of the property subject to the institutional controls by an environmental professional.

Please submit a Remedial Action Work Plan (RAWP) to the Department for review and approval. Once the Department's review for consistency with Sections 8 and 9 of the Remediation Regulations is complete, any written comments generated as a result of the review will be forwarded to you immediately. Upon finalization of the RAWP the Department will issue an Order of Approval Letter (Order) signifying that the Department approved RAWP may be implemented. Pursuant to Rule 10.02 of the Remediation Regulations, the application fee for Remedial Action Approvals is one thousand (\$1,000) dollars. Please remit a check in that amount to this office made out to the State of Rhode Island General Treasurer.

As the Performing Party, the YMCA will be responsible for properly conducting the above-listed activities.

All correspondences should be sent to my attention. If you have any questions regarding this letter or if you would like the opportunity to meet with Department personnel, please contact me by telephone at (401) 222-2797 x7109 or by e-mail at [jmartell@dem.state.ri.us](mailto:jmartell@dem.state.ri.us).

Sincerely,



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

Authorized by:



Kelly J. Owens, Supervising Engineer  
Office of Waste Management  
Department of Environmental Management

cc: John Langlois, Esq., RIDEM/OLS  
Jeffrey Crawford, RIDEM/OWM  
Frank Gally, RIDEM/OWM  
Susan Kaplan, RIEDC  
Christopher Walusiak, RIDEM/OWM  
Judith Crowley, YMCA  
Robert Nicoloro, MACTEC (f.k.a. Harding ESE & HLA)

David M. McCabe, Textron  
John P. Hartley, GZA  
Gregory Benik, Esq., H&K



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

April 24, 2006

**CERTIFIED MAIL**

Ms Susan Rittscher  
President and CEO  
YMCA of Greater Providence  
222 Richmond Street  
Providence, RI 02903

RE: Order of Approval, YMCA of Greater Providence – 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 Ms. Rittscher:

Enclosed please find the Order of Approval (Order) for the proposed remediation plan for the above referenced facility. Please review the stipulations of this Order thoroughly to ensure your compliance with the requirements. This Order places primary responsibility for the construction, operation, maintenance and monitoring of the approved Remedial Action Work Plan (RAWP) on the YMCA of Greater Providence (YMCA). In order to enable the Department to monitor the YMCA's compliance with the RAWP, the Order requires the YMCA to notify the Department of any condition that is non-compliant with the Order or that constitutes an interruption of the RAWP. In order to maintain compliance with the Order and the RAWP, the YMCA's responsibilities under the Order necessarily include the responsibility to respond to and correct non-compliant conditions in a timely and professional manner that minimizes non-compliance with the Order and RAWP, and protects human health and the environment.

Please notify this office 48 hours prior to the beginning of any work related to the remediation of the property. If you have any questions regarding this matter, please contact me at (401) 222-2797 x7109.

This Order shall be recorded in the land evidence records of the City of Providence as required by law, and a recorded copy must be returned to the Department within 7 days of recording.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph T. Martella II".

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



30% post-consumer fiber

cc: Terrence D. Gray, P.E., Assistant Director, RIDEM/AW&C  
Leo Hellested, P.E., Chief, RIDEM/OWM  
Kelly J. Owens, RIDEM/OWM  
Sarah Destefano, RIDEM/OWM  
Brian Wagner, Esq., RIDEM/OLS  
Christopher Walusiak, RIDEM/OWM  
Dorrie Paar, USEPA  
Dr. Robert Vanderslice, PHD, RIDOH  
Hon. David N. Cicilline, Mayor, City of Providence  
Senator Juan M. Pichardo, District 2  
Representative Thomas Slater  
Providence City Councilman Ronald Allen  
John J. Lombardi, City of Providence  
Thomas Deller, City of Providence  
Gerald Petros, Esq., Hinkley Allen  
John P. Hartley, GZA  
Tracy C. Baran, Esq. PS&H  
Sara Rapport, Esq., City of Providence  
James Ryan, Esq, PS&H  
Timothy Regan, EA  
Gregory Simpson, Textron  
Steven Fischbach, Esq., RILS

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**In the matter of Remedial Action Approval at:  
The YMCA of Greater Providence – Parcel C  
(Formerly a portion of the Gorham/Textron Dump site)  
333 Adelaide Avenue, Providence, RI, Plat 51, Lot 324 (the Site)**

**Case No. 2004-014**

ORDER OF APPROVAL

In the above entitled matter wherein, the **YMCA of Greater Providence (YMCA), in its capacity as a Performing Party for the remediation of property located at 333 Adelaide Avenue, Providence**, has filed the following documents with the Rhode Island Department of Environmental Management (the Department):

1. Remedial Action Work Plan, Providence YMCA – Parcel C, Providence, Rhode Island, prepared by GZA GeoEnvironmental, Inc., (GZA), dated February 9, 2005;
2. Memo from GZA to the Department, Re: Stockpile Testing – Gorham Property – Parcel C, dated September 7, 2005; and
3. Response to Comments, Providence YMCA – Parcel C, prepared by GZA, dated February 16, 2006.

Subject to the conditions herein, these documents fulfill the requirements of Section 9.00 (Remedial Action Work Plan) of the Department's Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases (Remediation Regulations), effective March 31, 1993 and amended February 24, 2004, and describe a plan to remediate existing contamination pursuant to 23-19.14-1 et seq. and Department's Remediation Regulations, amended February 24, 2004 in accordance therewith.

This Order of Approval (Order) places primary responsibility for the construction, operation, maintenance and monitoring of the approved Remedial Action Work Plan (RAWP) on the YMCA. In order to enable the Department to monitor the YMCA's compliance with the RAWP, the Order requires the YMCA to notify the Department of any condition that is non-compliant with the Order or that constitutes an interruption of the RAWP. In order to maintain compliance with the Order and the RAWP, the YMCA's responsibilities under the Order necessarily include the responsibility to independently and proactively respond to and correct non-compliant conditions in a timely manner.

The intent and purpose of this Order is to clarify and reinforce the YMCA's obligations under the Order, including its responsibility to address non-compliant site conditions (e.g. equipment malfunctions or exceedances of established contaminant limits). As the performing party, the YMCA is expected to implement the RAWP semi-autonomously; i.e. with Department oversight but without the need for constant Department direction or approval of the YMCA's activities. Upon identifying any non-compliant condition, the YMCA is expected to act accordingly to develop and implement an appropriate response to re-establish compliance. The YMCA's response(s) to non-compliant conditions must be implemented in an expeditious and professional manner that minimizes non-compliance with the Order and RAWP, and protects human health and the environment.

It is the Department's intent that this Order implement clear and specific timelines for deliverables that must be met by the YMCA with respect to the on-site monitoring, reporting and operation & maintenance requirements necessary to maintain the Remedy in a state of compliance. Upon consideration thereof, and in accordance with Rule 10.1 (Remedial Action Approvals) of the Remediation Regulations, the Department conditionally approves said RAWP through this Order, provided that:

- 1) All work, operations, activities and schedules shall be performed in accordance with the terms and conditions of this Order, the Department approved RAWP, and all other applicable federal, state and local laws and regulations.
- 2) The YMCA shall prepare and distribute a community notice to the residents in the reservoir triangle neighborhood and to other interested parties (e.g. community groups and local elected officials). The notice shall be printed in English and Spanish and shall include an estimated schedule for remedial activities and construction, a brief description of the work to be performed and the precautions to be taken to protect the community, and relevant contact information for the YMCA and its on-site contractors (name, phone, e-mail ... etc.) for questions and complaints.
- 3) In order to meet the requirements for the Rhode Island Brownfields Cleanup Revolving Loan Fund (RIBCRLF), the following conditions must be met **prior** to commencing the remedial action at Site:
  - a) Satisfactorily address the Department's comments on the proposed RAWP, Sampling & Analysis Plan (SAP) / Quality Assurance Project Plan (QAPP), and Health & Safety Plan (HASP) for the above referenced property, issued via email by Sarah DeStefano on February 7, 2006, to John Hartley of GZA on behalf of the YMCA;
  - b) Receive Department and EPA approval for the site-specific Quality Assurance Project Plan (QAPP). The QAPP is applicable for all samples collected and analyzed during the performance of the Remedy, including samples collected for both field screening and laboratory analysis;
  - c) Receive Department approval for the Health and Safety Plan, submitted in accordance with OSHA requirements (29 CFR 1910), for the proposed Remedial Action; and
  - d) Receive Department, EPA and EDC approval of the finalized remediation budget analysis for the selected Remedial Alternative. This budget should show itemized costs for components of the remedy, the costs to be paid for by the YMCA and the costs proposed for reimbursement from the grant. The YMCA may be required to demonstrate that it has sufficient funds to cover its costs.
- 4) Upon the YMCA completing the above-mentioned RIBCRLF requirements, the Department will issue a letter to the YMCA, confirming that the RIBCRLF requirements have been met and that the YMCA may implement the Department approved RAWP in accordance with this Order. **Please be advised that the YMCA's eligibility to receive and utilize funding from the Rhode Island**

**Brownfields Cleanup Revolving Loan Fund to perform the proposed environmental response actions at the site is contingent upon all of the above items being satisfied prior to the implementation of the remedy.**

- 5) Work shall be initiated at the Site within thirty (30) days of the Department issuing the above-mentioned approval letter indicating that the YMCA has sufficiently addressed the RIBCRLF requirements in items 3 and 4 above.
- 6) No hazardous waste shall be accepted from any off-site sources for treatment or disposal at the Site.
- 7) Sampling and analysis of all media involved in the Remedial Action shall be conducted in accordance with the requirements of the RAWP and this Order.
- 8) The Site remedy as described in the RAWP shall incorporate the following:
  - a) All work, operations, and activities shall be performed to ensure the applicable remedial objectives for the site are achieved for all hazardous substances at the site, so as to manage actual or potential risks to human health and the environment.
  - b) Encapsulation of all regulated site soils through the installation of Department approved engineered controls (including the building foot print, side walks, asphalt parking areas, landscaped areas, or other engineered caps). A Department approved engineered control shall cover every portion of Parcel C up to the "barrier to prevent access to the Park Parcel" described in the March 29, 2006 Superior Court Consent Order (Parcels B & C). All engineered controls shall provide a level of protection equivalent to a minimum of two feet of clean soil. Any additional proposed engineered control design, not previously described in the RAWP and approved through this RAL, must be submitted to the Department for approval prior to installation. Engineered control caps consisting of concrete pavement or walkways shall be completed with a minimum six (6) inch base of appropriate clean material covered with a minimum of four (4) inches of concrete. All engineered controls over areas known or suspected to be subject to the Solid Waste Regulations, and under the jurisdiction of the Solid Waste Program, shall consist of a minimum of two feet of clean soil. All regulated site soils and engineered controls shall be subject to an Environmental Land Usage Restriction (ELUR).
  - c) Construction, installation, maintenance and continuous operation of an active sub-slab ventilation (SSV) system designed to extract soil vapor from under the building, and to prevent the accumulation and/or buildup of methane gas or volatile organic compounds (VOCs), and to ensure levels of methane and or VOCs are maintained below applicable "Action Levels." The SSV system shall also be equipped with an alarm system, and system operation and maintenance will include periodic monitoring of methane and VOC levels below the building and in the extracted soil vapor.
  - d) In order to determine if treatment, a permit, or registration for the SSV system is required under Air Pollution Control (APC) Regulation No. 9, a submission to the Department's Office of Air

Resources (OAR) shall be made concurrent with the implementation of the RAWP, which shall include a calculated estimate of the amount of contaminant vapor to be discharged based upon the design specifications of the SSV system. Following the installation of the sub-slab ventilation system, its proper operation shall be tested to demonstrate compliance with the Department approved performance criteria in the final RAWP, and to verify actual emission values.

e) Implementation of a long term vapor and air-monitoring program sufficient to ensure site conditions are maintained in compliance with the applicable remedial objectives. Said monitoring program shall include at a minimum:

- i) Incorporation of remedial "Action Levels" as follows:
  - (1) Within buildings, the remedial Action Level shall be 1 percent of the methane lower explosive limit (LEL).
  - (2) Under buildings, the remedial Action Level shall be 10 percent of the methane LEL.
  - (3) The remedial Action Level for VOCs shall be the Connecticut Residential Proposed Target Indoor Air Concentrations (TACs). An appropriate analytical method shall be selected with a detection limit sufficiently sensitive to allow proper comparison of detected VOC concentrations to each applicable TAC (e.g. speciated VOCs using EPA method TO-15).
- ii) The proposed location of each interior methane monitor/alarm (i.e. continuous within the buildings), as well each proposed interior and sub slab sample collection location shall be provided to the Department prior to installation.
- iii) Performance of baseline ambient air monitoring within the subsurface slab area and the building interior shall be conducted, prior to system start up and any occupancy, to evaluate concentrations of methane and VOCs at the site.
- iv) The schedule for periodic compliance monitoring shall be weekly from system start-up through the first quarter of system operation, followed by monthly provided that there are no exceedances of the applicable remedial Action Levels. After successfully demonstrating one year of continuously compliant system operation, the YMCA may petition the Department to decrease the required monitoring frequency.
- v) The air quality of each interior monitoring location shall be sampled by combustible gas indicator (CGI) for comparison to the methane LEL. Each sub slab monitoring location shall be sampled and analyzed for both methane and VOCs. In the event that concentrations of VOCs in the sub slab air are detected at a level which exceeds an Action Level, VOC samples shall immediately be collected and analyzed from each interior monitoring location.
- vi) In the event that a remedial Action Level is exceeded in a location that is already being addressed by the active sub-slab ventilation system (i.e. indoor air or under a building), the YMCA shall immediately notify the Department by telephone and respond to and correct non-compliant conditions in a timely manner. Written notification to the Department shall follow within seven (7) days with any plans to upgrade or adjust the system to remedy the problem, including steps taken to address the non-compliance. It shall be the YMCA's responsibility to assess immediate threat or emergency situations and to address non-compliant conditions in an

- expeditious and professional manner that minimizes non-compliance with the Order and RAWP, and protects human health and the environment.
- vii) Each of the interior methane monitors shall be operated continuously and be connected to the remote alarm system in such a manner as to trigger the alarm should the concentration of methane in any building exceed the remedial Action Level of 1 percent of the methane LEL. Each interior methane monitor shall be powered in a manner such that operation will not be interrupted during a power failure. In the event that the concentration of methane in any building exceeds the remedial Action Level of 1 percent of the methane LEL, the YMCA shall act accordingly to develop and implement an appropriate response to re-establish compliance, and protect human health and the environment. Response protocols may include, but not necessarily be limited to, building evacuation, notification of the Providence Fire Department via "911", notification of the Department, and other steps, as appropriate, designed to identify and correct any alarm system or SSV system-related problems that may have contributed to site conditions, which caused the methane sensor alarm.
  - viii) All equipment shutdowns (intentional and unintentional) or operational problems shall be reported to the Department immediately. Intentional equipment shutdowns for regular maintenance shall not require immediate notification to the Department provided that the shutdown is for less than twenty-four (24) hours and the maintenance activity is discussed in the next quarterly report.
  - ix) Monitoring of methane and VOCs shall continue at the specified rate as long as a source of contamination exists.
- f) Preparation and submission of quarterly air monitoring reports in accordance with this Order, and including the recording of the following parameters:
- i) The concentrations of methane and VOCs detected in each sample collected and analyzed during monitoring activities for the current reporting period.
  - ii) A summary table of the concentrations of methane and VOCs detected in each sample collected and analyzed during prior reporting periods.
  - iii) The occurrences of any alarm activations during the quarter and the resulting activities performed in response to the alarm activation.
  - iv) The occurrences of any remedial Action Level exceedances during the quarter and resulting activities performed in response to the exceedance.
  - v) The system operational status during the quarter, particularly noting the length of any system shutdown due to power failure, system malfunction, repairs, scheduled maintenance, etc.
  - vi) The anticipated delivery date of the next scheduled monitoring report submittal.
- g) Management of all Site soil in accordance with the requirements of the RAWP and this Order.
- h) Implementation of appropriate procedures to manage, control and monitor regulated soil, asbestos containing material (ACM) and dust in a manner consistent with the asbestos and fugitive dust management precautions employed during the Department-approved Limited Remedial Action Work Plan (LRAWP) for Parcel B, including but not limited to:

- i) All on-site workers must be fitted with ACM monitoring devices during any remedial or construction activity with the potential to generate dust. The monitoring devices shall include vacuum intakes located near the workers' breathing zone to provide results that are representative of the levels within the inhalation area of the workers. Samples shall be collected from the monitoring devices and analyzed regularly with a quick turn-around to ensure the safety of on-site workers.
  - ii) Real-time dust monitoring shall be conducted at the perimeter of the site to ensure that site activities do not create unacceptable impacts to off-site air quality and risks to nearby populations. Portable dust monitoring stations shall be established at upwind and downwind locations and shall be relocated on a regular basis as upwind and downwind locations change based on meteorological conditions. Monitoring equipment shall be equipped with alarms to indicate when site-specific action levels are exceeded. Dust monitoring results must be submitted to the Department on a weekly basis, at a minimum, and be made part of the Operating Log for the RAWP. The Department must be immediately notified of any exceedances of any approved action levels (see above referenced LRAWP), any corrective action that was performed, and the results and effectiveness of corrective action measures.
  - iii) Regular application of water to the work area or any area of soil disturbance to control dust through the use of either a water truck equipped with multiple spray nozzles and a manual hose attachment, or multiple oscillating water sprinklers.
- i) Preparation and submission of a Remedial Action Closure Report documenting the work performed and including at a minimum the following items:
- i) A post remediation survey of the entire site with as-built plans demarcating the exact location (e.g. vertical and horizontal extent and type) of the installed engineered controls, including: geotextile fabric, clean fill, utilities, structures, basins, swales, the storm water detention pond, the SSV system, and all monitoring locations.
  - ii) Analytical results and summary of all post remediation/post construction methane, VOC and air monitoring performed to date, demonstrating compliance with the requirements of this Order.
  - iii) All original laboratory analytical data results from the remedial activities, compliance and confirmation sampling, and clean fill sampling as applicable.
  - iv) A statement from the facility or environmental consultant attesting to the origin of the clean fill and/or loam, and suitability consistent with the RAWP and this Order. Any organic topsoil utilized shall conform to the general vegetated top cover criteria outlined in Rule 2.2.12 of the Solid Waste Regulations.
- j) A draft ELUR shall be submitted to the Department for review and approval at the conclusion of the remedial action, and once approved by the Department, shall be recorded in the City of Providence land evidence records of the subject property.
- k) Long-term maintenance of the engineered controls and portions of the property subject to the ELUR, including annual inspection and certification by an environmental professional.

- 9) The SSV system (including the alarm system) shall be operated and maintained to prevent methane and/or VOC concentrations from reaching or exceeding the remedial Action Levels within any and all occupied structures at the site.
- 10) Any temporarily stockpiled regulated soils shall be placed upon and covered with polyethylene of thickness at least 6mm or greater to prevent tearing, and segregated from clean fill material to prevent cross contamination.
- 11) All excess fill material generated on site, shall have all solid waste and debris removed prior to reuse as closure cap subgrade beneath the filter fabric layer.
- 12) Any material discovered during excavation activities that qualifies as "Solid Waste," as defined by the Department's Solid Waste Regulations, must be disposed of at a licensed Solid Waste Facility. This includes, but is not limited to, any solid waste material removed under the proposed building footprint as well as any solid waste material excavated within the footprint of the proposed storm-water detention pond.
- 13) All RAWP activities shall be performed in compliance with all appropriate Office of Air Resources (OAR) Rules and Regulations, including but not limited to the monitoring and control of any air emissions and the timely acquisition of any required Air Pollution Control Permits (Air Permits).
- 14) Any portion of the RAWP or development project conducted on the Site which falls under the jurisdiction of the Department's Freshwater Wetlands Program must be done in accordance with the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act (the Wetlands Regulations), including but not limited to the timely acquisition of a Wetlands Permit.
- 15) All waste derived from implementation of the RAWP, the repair and maintenance of the Remedy, or the engineered systems shall be managed in accordance with the Department's Remediation Regulations, Rules and Regulations for Hazardous Waste Management, and Solid Waste Regulations, as appropriate. In accordance with Rule 11.07 (Initiator) of the Remediation Regulations, the YMCA must comply with the requirements of the Solid Waste Regulations, as amended, for all solid waste shipments that they initiate, and documentation of disposal shall be provided to the Office of Waste Management (OWM).
- 16) All fill material brought onto the Site and all soil utilized for the engineered control cap must be compliant with the Department's Method 1 Residential Direct Exposure Criteria pursuant to the Remediation Regulations. All clean fill, including sub-grade material and loam, imported to the site must be sampled in accordance with the RAWP and this Order, prior to delivery and placement. Laboratory analytical results must be submitted to the OWM via fax (401) 222-3812. Written approval (via e-mail, fax or letter) to use the fill must be received from the Department prior to use.
- 17) Within sixty (60) days of completion of the Remedial Action described in the RAWP, a Remedial Action Closure Report, detailing the Remedial Action and current site status, and including a draft

ELUR including a Site specific post remediation Soil Management Plan (SMP), and a post remediation survey and as-built plan, shall be submitted to the OWM for review and approval.

- 18) Within thirty (30) days of receiving Department approval of the Remedial Action Closure Report and ELUR, the YMCA will have the Department approved ELUR recorded in the Providence land evidence records, and submit a recorded (stamped) copy to the OWM within fifteen (15) days of the date that it is recorded.
- 19) Within ten (10) days of submittal of the recorded (stamped) copy of the Department approved ELUR to the OWM, the YMCA shall notify all abutting property owners, tenants, and interested parties that the ELUR has been recorded.
- 20) The YMCA, its representatives, employees, agents and contractors shall adhere to the following timelines in its management, operation and maintenance of the Site.
  - a) The YMCA shall immediately notify the OWM of any Site or operating condition that results in non-compliance with this Order, or that indicates that the Remedy is not meeting its intended goal of preventing human exposure to hazardous materials contained in the former manufacturing facility site.
  - b) The OWM shall be notified in writing immediately if the YMCA suspects or has reason to believe that any of the remedial objectives will not be met.
  - c) The OWM will be notified a minimum of five (5) working days in advance of any changes in contractors and/or consultants for the remedial activities in this RAWP, and will be promptly supplied with complete contact information for each new contractor or consultant (including but not limited to company name and address, contact name and address, contact telephone number and e-mail address).
  - d) Any RAWP interruptions shall be reported to the OWM by telephone within one (1) working day and in writing within seven (7) days.
  - e) All exceedances of the "Action Levels" established in the Order that are detected during any site monitoring activity (including but not limited to monitoring of sub-slab ventilation systems, or interior methane monitors/alarms) shall be reported to the OWM immediately and responded to immediately by the YMCA.
  - f) All equipment shutdowns (intentional and unintentional) or operational problems shall be reported to the OWM immediately. Intentional equipment shutdowns for regular maintenance shall not require immediate notification to the OWM provided that the shutdown is for less than twenty-four (24) hours and the maintenance activity is discussed in the next quarterly report.
  - g) All repairs or replacements of equipment or other actions taken in response to any non-compliance with the RAWP shall be completed within fourteen (14) days of discovery of the non-compliant

condition. Additional time may be requested from the OWM in writing, provided that the request is supported with a justifiable explanation as to why the work cannot be completed within 14 days and includes a binding timetable for the completion of all work. All requests for additional time shall be submitted to the OWM as soon as the YMCA becomes aware that additional time is necessary, but not later than 14 days from the discovery of the non-compliant condition. Documentation describing the repairs and certifying that the malfunction was corrected and that the equipment is operational must be received by the OWM within 5 (five) days of completion of the repairs.

- h) All deficiencies in the approved engineered cap (including but not limited to sinking, cracking or excavation of soil, asphalt, cement or foundations) shall be reported to the OWM immediately upon discovery and shall be repaired within fourteen (14) days. Until repairs are made, the YMCA shall prevent access to the deficient areas by staff, clients or visitors. Documentation describing the deficiency, the repairs and certifying that the repairs meet the requirements of the Remedy must be received by the OWM within 5 days of completion of the repairs.
- i) Any report or notice required to be submitted to the OWM "immediately," shall require verbal notification to the OWM within twenty-four (24) hours and written notification to the OWM within seventy-two (72) hours. The report or notice shall include a description of: the point of non-compliance (e.g. Action Level exceedance, equipment problems); the known or suspected cause for the non-compliance; any response actions taken as of the time of the report or notice; preliminary concepts for response actions to address, correct and/or prevent recurrence of the non-compliance; and a preliminary timetable for the completion of any further response actions. Final plans and timetables for response actions shall be reported to the OWM as soon as they are developed.

- 21) All notifications or reports required to be made or submitted to the Department under this Order, any other information pertinent to the RAWP, and/or any other notification regarding the YMCA site shall be reported to:

**Joseph T. Martella II, Senior Engineer**  
RIDEM – Office of Waste Management  
235 Promenade St., 3<sup>rd</sup> Floor  
Providence, RI 02908-5767

Tel: (401) 222-2797 x7109

Fax: (401) 222-3812

E-mail: joseph.martella@dem.ri.gov

- 22) This Order does not remove the obligation of the YMCA to obtain any other permits, licenses or approvals from any state, local, or federal agencies (including the Department) that may be necessary to comply with this Order.

- 23) It is the YMCA's sole obligation to obtain all necessary approvals and permits required to implement the RAWP in a timely manner consistent with the RAWP schedule and deadlines in this Order.
- 24) The YMCA shall have this Order recorded in the City of Providence, land evidence records of the subject property within thirty (30) days of execution of this Order.
- 25) There shall be no occupation or use of any building, facility or grounds on the Site until all the requirements described in the RAWP and this Order have been met to ensure that the applicable remedial objectives for the site are achieved for all hazardous substances, so as to manage actual or potential risks to human health and the environment for workers, clients, visitors and trespassers at the Site.

Subject to future revisions or amendments by the Department, this Order shall remain in full force and effect for as long as said RAWP shall be operated and maintained in a condition satisfactory to the Department. Failure to comply with all points outlined in the Department approved RAWP and stipulated in this Order shall result in the issuance of a Notice of Violation and Order against the YMCA and the owner of the property.

This Order shall be subject to modification or revocation in accordance with law.

Entered as an approval by the Department this 24<sup>th</sup> day of April, 2006.

By: 

Leo Hellested, P.E.  
Chief, Office of Waste Management  
Department of Environmental Management



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

**PROGRAM LETTER**

May 18, 2011

Mr. Gregory L. Simpson  
Project Manager  
Textron, Inc.  
40 Westminster Street  
Providence, RI 02903

RE: Former Gorham Manufacturing Facility – Park Parcel (a.k.a. Parcel D)  
333 Adelaide Ave., Providence, RI  
**Case No. 2005-059 (Associated with Case No. 97-030)**

Dear Mr. Simpson:

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 an efficient manner. The purpose of the *Program Letter* is to indicate that the Department deems the investigation of the reported release complete and to notify the Responsible Party that they must perform Public Notice in accordance with Rules 7.07 and 7.09 of the Remediation Regulations.

The Department has the following documents on file pertaining to the environmental conditions at the above-referenced property (the Site):

1. A Report on the Distribution of Organic Components and Trace Metals in Mashapaug Pond Sediments, prepared by James G. Quinn, James S. Latimer and John T. Ellis of the Graduate School of Oceanography at the University of Rhode Island, and dated April 1986;
2. Correspondence entitled, “*Gorham Manufacturing Co. Facility, Phase I Report*,” prepared by Buonicore-Cashman Associates, and dated July 13, 1987;
3. Environmental Assessment, Adelaide Avenue Plant, Providence, Rhode Island, prepared by Goldberg-Zoino & Associates, Inc., and dated April 1988;
4. Soil and Ground Water Contamination Site Assessment of the Gorham Manufacturing Facility, Providence, RI, prepared by Hunter, Inc., and dated May 25, 1989;
5. Site Investigation Report, Gorham/Textron Site, Providence, Rhode Island, prepared by Camp Dresser & McKee, Inc., and dated June 1993;

6. Correspondence entitled, “*Short-Term Response Action*,” and prepared by ABB Environmental Services, Inc., and dated July 11, 1997, (This correspondence also included laboratory analytical data provided under separate cover, entitled, “*Analytical Laboratory Report for Short-Term Response Action – Former Gorham Manufacturing Facility*”);
7. Site Investigation Summary Report and Risk Assessment, Former Gorham Manufacturing Property, 333 Adelaide Avenue, Providence, Rhode Island, prepared by Harding Lawson Associates (HLA), and dated July 29, 1999;
8. Responses to RIDEM Comments on Site Investigation Report and Risk Assessment, prepared by HLA, and received June 6, 2000;
9. Revised Development Plan and Application of Remedial Alternatives, prepared by HLA, and dated March 9, 2001;
10. Notification to Abutters of Completion of Site Investigation Activities, dated October 30, 2000, and received May 1, 2001;
11. Remedial Action Work Plan, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, prepared by Harding ESE (Harding), and dated April 25, 2001;
12. Letter from Harding to the Department, Re: *Response to RIDEM Comments on the Remedial Action Work Plan, Former Gorham Manufacturing Property, 333 Adelaide Avenue, Providence, Rhode Island*, dated July 24, 2001;
13. Data Review for Mashapaug Pond, Providence, Rhode Island, prepared by the U.S. Environmental Protection Agency, and dated August 2001;
14. Letter from Harding to the Department, Re: *Response to RIDEM Comments Dated September 4, 2001, Remedial Action Work Plan, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island*, dated September 25, 2001;
15. Letter from IT Corporation (IT) to the Department, Re: *Remedial Action Work Plan, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI*, dated November 28, 2001;
16. Memorandum from Harding to the Department (delivered via e-mail), Re: *TPH soil issue at Gorham*, dated November 26, 2001, (revised December 18, 2001, at the request of the Department);
17. Letter from Textron to the Department, Re: *Response to RIDEM Comments, Remedial Action Work Plan, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI*, dated January 10, 2002;

18. Letter from IT to the Department, Re: *Remedial Action Work Plan Revisions, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI*, dated January 28, 2002;
19. Letter from IT to the Department, Re: *Remedial Action Work Plan Revisions, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI*, dated February 12, 2002;
20. Mashapaug Pond Data Report and Analysis, prepared by Environmental Science Services, Inc., and dated February 15, 2002;
21. Revised Site Map for Remedial Action Work Plan, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, prepared by IT, and submitted March 5, 2002;
22. Supplemental Site Investigation Work Plan to Support Human Health and Ecological Risk Assessment Activities, Park Parcel/Mashapaug Cove, Former Gorham Manufacturing Property, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC Engineering and Consulting, Inc. (MACTEC), dated November 2005, and received November 17, 2005;
23. Quality Assurance Project Plan, Short-Term Limited Site Investigation, Former Gorham Property and Mashapaug Cove, Providence, Rhode Island, prepared by Fuss & O'Neill (F&O), and dated December 2005;
24. Supplemental Site Investigation, Gorham Manufacturing Property & Mashapaug Cove, prepared by F&O, and dated April 2006;
25. Slag Removal Work Plan, Former Gorham Manufacturing Facility, Plat 51 – Lots 323, 324, and 326, 333 Adelaide Avenue, Providence, Rhode Island, 97-030 (Including Case No. 2005-029 and Case No. 2005-059), prepared by MACTEC, and dated May 24, 2006;
26. Supplemental Site Investigation Work Plan, Park Parcel/Mashapug Cove, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated June 2006;
27. Supplemental Site Investigation Report, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island (SSIR), prepared by MACTEC, dated July 31, 2006, and received August 9, 2006;
28. Letter from MACTEC to Robert Dorr, Re: *Historical Records, Former Gorham Site, 333 Adelaide Ave., Providence, RI*, dated September 12, 2006;
29. Letter from the City of Providence to the Department, Re: *Reply to Slag Pile Removal Letter Dated 21 September 2006, Former Gorham Manufacturing Facility – Park Parcel, 333 Adelaide Ave., Providence, Rhode Island*, dated September 29, 2006;

30. Slag Removal Action Summary Report, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated September 29, 2006;
31. Submittal of Technical Report, Geophysical Survey, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, prepared by MACTEC, and dated October 2, 2006;
32. Letter from Textron to the Department, Re: *Response to RIDEM Slag Pile Removal Comments, Former Gorham Manufacturing Facility, Providence, RI*, dated October 3, 2006;
33. Letter from Robert Dorr to EA Engineering Science and Technology, Inc. (EA), Re: *Alternative Route to Park Parcel*, dated October 6, 2006;
34. Park Parcel Consent Order Compliance - Summary of Soil & Debris Pile Removal, Former Gorham Manufacturing Facility, Plat 51 – Lots 323, 324, and 326, 333 Adelaide Avenue, Providence, Rhode Island, Case No. 97-030 (Including Case No. 2005-029 and 2005-059), prepared by EA, and dated October 19, 2006;
35. Former Slag Pile Area Supplemental Removal Action Work Plan, Former Gorham Manufacturing Facility, Plat 51 – Lots 323, 324, and 326, 333 Adelaide Avenue, Providence, Rhode Island, Case No. 97-030 (Including Case No. 2005-029 and 2005-059), prepared by MACTEC, and dated October 26, 2006;
36. Letter from Robert Dorr to Mactec Re: *MACTEC Files - Textron UST Closure Reports Jan '81 thru Jan '99*, dated October 28, 2006;
37. Electronic mail (e-mail) from Textron to the Department, Subject: *Former Gorham Manufacturing Site - Slag Information*, dated November 2, 2006, including attachments a) Letter from Kenneth Kastner (Hogan & Hartson) to Jamieson Schiff (Textron), and b) Enclosures to Letter from Kenneth Kastner to Jamieson Schiff, both dated November 1, 2006;
38. E-mail from Textron to the Department, Subject: *Response to RIDEM November 6, 2006 Letter*, dated November 7, 2006;
39. Letter from Robert Dorr to Textron Re: *Community Response to Textron's Assertion that the Gorham Manufacturing Smelter was a former "Primary Lead Processing Facility,"* dated November 14, 2006;
40. Remedial Project Information Sheet – July 2006, Supplemental Investigation of Parcels C & D and Mashapaug Cove, Former Gorham Manufacturing Facility, prepared by Textron, and Distributed at the December 4, 2006 Gorham/Textron Site Public Meeting;
41. Letter from Sylvia Aldredge to the Department, Re: *Textron Remediation Responsibilities – (former) Gorham Textron Dumps Site, 333 Adelaide Avenue, Parcel D, the So-Called Park Parcel*, dated December 7, 2006;

42. Former Slag Pile Area Supplemental Removal Action Work Plan, Former Gorham Manufacturing Facility, Plat 51 – Lots 323, 324, and 326, 333 Adelaide Avenue, Providence, Rhode Island, Case No. 97-030 (Including Case No. 2005-029 and 2005-059), prepared by MACTEC, and dated January 16, 2007;
43. Response to Comments, Supplemental Site Investigation Report, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, July 2006, prepared by MACTEC, and dated February 1, 2007;
44. Response to Comments, Former Slag Pile Area Supplemental Removal Action Work Plan, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, January 16, 2007, prepared by MACTEC, and dated February 26, 2007;
45. Letter from Robert Dorr to Textron Re: *Slag Pile Removal Action Work Plan – Community Comments*, dated April 22, 2007;
46. Community Information Session Newsletter, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated June 25, 2007;
47. Supplemental Site Investigation Report Addendum June 2007, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated June 28, 2007;
48. Letter from the Gorham area Community to Mactec, Re: *Park Parcel - Accelerated Phase 1 Remediation, Supplemental Site Investigation Report Addendum, Community Concerns and Comments*, dated July 11, 2007;
49. Letter from the Gorham area Community to Textron, Re: *Community Stakeholders*, dated July 23, 2007;
50. Letter from Textron to Robert Dorr Re: *Former Gorham Manufacturing Site, Providence, RI*, dated July 26, 2007;
51. Letter from the Gorham area Community to the Department, Re: *Textron's Park Parcel Remediation Plan, Community Stake holder's Comments, First Opportunity for Public Response*, dated September 5, 2007;
52. Gorham Public Questions & Answers, Park Parcel Public Meeting, Former Gorham Manufacturing Site, Providence, Rhode Island, August 23, 2007, prepared by MACTEC, and dated October 22, 2007;
53. December 2007 Investigation Activities, Building N Underground Storage Tanks, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated January 8, 2008;

54. Letter from Textron to the Department, Re: Phase I Park Parcel Closure, Former Gorham Manufacturing Site, prepared by Textron, and dated February 20, 2008;
55. Letter from Textron to the Department, Re: Park Parcel Remediation, Former Gorham Site, prepared by Textron, and dated March 12, 2008;
56. Building N Underground Storage Tanks Closure Report, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated April 3, 2008;
57. Letter from the Gorham area Community to RIDEM, Re: *Park Parcel Remediation - Incomplete Investigation – RAWP*, dated April 4, 2008;
58. Mashapaug Cove Groundwater Investigation, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated December 12, 2008;
59. Groundwater Investigation Work Plan, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated October 14, 2009;
60. Data Summary Report, Mashapaug Cove Groundwater Investigation, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated April 7, 2010;
61. Letter from Environmental Justice League of Rhode Island (EJLRI) to the Department, dated May 19, 2010; and
62. Park Parcel Phase I, Recommended Remedial Action, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated May 17, 2011.

The Department regards the above-mentioned documents as collectively constituting the necessary requirements of the Site Investigation Report (SIR) pursuant to Rule 7.08 of the Remediation Regulations. The items listed above will be referred to as the **SIR** in this and all future correspondences regarding this Site.

The Department requires that you initiate public notice pursuant to Rules 7.07.B and 7.09 of the Remediation Regulations to all abutting property owners, tenants, the City of Providence and all utilities with easements on the property on the completed package with the preferred remedial alternative. The preferred remedial alternative as proposed involves a three phased approach to the remediation of the Park Parcel and Mashapaug Cove. **Phase I, which is the subject of this Program Letter, includes the limited removal of surface soil with post-removal confirmation sampling at three locations in the western shoreline area, additional soil removal at two locations within the former slag pile area, and encapsulation of any soil exceeding a residential direct exposure criteria within the Park Parcel Phase I area, in order to contain historic fill**

material, prevent direct exposure, limit infiltration in the former slag pile area, and restrict wind erosion or surface run-off. Upon completion of the remedial activities, an Environmental Land Usage Restriction (ELUR) will be recorded on the deed for the Park Parcel. The ELUR shall include a post-construction Soil Management Plan (SMP), which will outline the procedures for managing the soils on site should disturbances below the cap be required. As part of the ELUR, it shall be the responsibility of the property owner to provide for annual inspections of the property by a qualified environmental professional, and to submit a report, subject to review by the Department, which shall certify that the property is in compliance with the Department approved remedy and the terms of the ELUR. The Department will also perform random audits of the remedy. Textron shall maintain and monitor the completed engineered cap in the Phase I area until the responsibility is taken over by the City of Providence or Providence Redevelopment Authority (PRA) at the time the ELUR is recorded.

The proposed Phase I soil cap consists of three distinct components including a fill area cap, a wetland buffer cap, and a former slag area cap. The fill area extends along the top of the western slope and extends along the shoreline of Mashapaug Pond's inner cove. The fill area will be capped with a minimum of two feet of clean soil consisting of 18 inches of cover soil covered by six inches of top soil, then seeded or stabilized with erosion control matting. The portions of the fill area cap along the area of the Gorham site known as Parcel B (a.k.a. Alvarez High School) and Parcel C (a.k.a. the undeveloped lot to the west of Alvarez High School, formerly proposed for a YMCA), will match the existing grade at the High School boundary and the proposed future grade at the Parcel C boundary. The wetland buffer area consists of the area within the 50 foot wetland boundary (delineated approximately five to ten feet upland from the Mashapaug cove shoreline). An effort will be made to save as many large trees within the buffer zone as possible, however clearing and grubbing of the wetland buffer zone scrub material will be conducted to support the installation of the soil cap. One foot of soil at the toe of the wetland buffer zone will be removed to allow the soil cap to key into the existing grade above the wetland boundary. Twelve inches of clean soil will then be spread throughout the buffer zone to provide the soil cap. The finished surface for the wetland buffer cap will be stabilized with erosion control matting, and Department approved wetland vegetation will be planted as part of the wetland buffer area restoration. All of the Phase I work will be conducted outside of the wetland boundary, with all of the remediation work within the freshwater wetlands to be conducted in the future as part of the Phase II cove sediment remediation. The cap design for the former slag area includes a geotextile membrane to limit infiltration and restrict contact with the underlying soils. The existing soil will be graded and capped with six inches of clean sand, followed by a 40-mil geotextile membrane, a drainage composite layer, twelve inches of clean cover soil, and an additional six inches of clean top soil, which will be seeded or stabilized with erosion control matting). The existing chain link fence will be relocated along the boundary between Parcels C and D, and temporary fencing will remain in place to restrict access to the steep slope down to the shoreline and until the cove sediments (Phase II) and remaining Parcel D surface soils (Phase III) have been remediated. All existing groundwater monitoring wells within the Phase I cap will be secured during construction activities and maintained for future groundwater monitoring purposes. Former groundwater monitoring well GZA-5 will be restored to its location within the former slag pile area, and one additional monitoring well will be installed downgradient of the former slag pile area for future groundwater monitoring purposes. The

implementation and completion of the Phase I work shall in no way interfere with the eventual implementation and completion of Phase II, Phase III, or an eventual groundwater remedy for the overall Gorham site. Upon Textron's completion of remedial activities on the Park Parcel, responsibility for maintaining the remedy and any future development of the Park Parcel shall be assumed by the owner of the property, currently the City of Providence through the PRA.

Please be reminded that Textron must meet *all* other Federal, State and local requirements prior to commencing any site activities.

Rules 7.07 and 7.09 of the Remediation Regulations outline the requirements for public notice regarding the substantive findings of the completed investigation and the opportunity for public review and comment on the technical feasibility of the proposed remedial alternatives mentioned above. Please submit a draft notification to the Department via email for review and approval *prior* to distribution. The Department will require a copy of the public notice letter and a list of all recipients, including abutters, tenants, the City of Providence, and all utilities with easements.

The Department will formally approve the SIR in the form of a *Remedial Decision Letter* once the Public Notice issues have been addressed and upon Department approval of all final responses to relevant public comments. At that time, the Site will enter the Remediation phase, and Textron will be required to submit a Remedial Action Work Plan (RAWP) and a draft ELUR and SMP for Department review and approval in accordance with Sections 8.0 and 9.0 of the Remediation Regulations. The RAWP shall describe all technical details associated with the implementation of the approved remedy.

All correspondence regarding this Site should be sent to the attention of:

Joseph T. Martella II – Senior Engineer  
RIDEM / Office of Waste Management  
235 Promenade Street  
Providence, RI 02908

If you have any questions regarding this letter, please contact me by telephone at (401) 222-2797 extension 7109 or by e-mail at [joseph.martella@dem.ri.gov](mailto:joseph.martella@dem.ri.gov).

Sincerely,



Joseph T. Martella II  
Senior Engineer  
Rhode Island DEM  
Office of Waste Management

Authorized by,



Kelly J. Owens  
Supervising Engineer  
Rhode Island DEM  
Office of Waste Management

cc: Terrence D. Gray, P.E., Assistant Director, RIDEM/AW&C  
Leo Hellested, P.E., Chief, RIDEM/OWM  
Susan Forcier, Esq., RIDEM/OLS

Elizabeth Scott, RIDEM/OWR  
Charles Horbert, RIDEM/OWR/Wetlands Permitting  
Martin Wencek, RIDEM/OWR/Wetlands Permitting  
Robert Vanderslice, PhD, RIDOH  
Tammie A. McRae, ATSDR  
Hon. Angel Taveras, Mayor, City of Providence  
Senator Juan M. Pichardo, District 2  
Representative Scott A. Slater  
Councilman Wilbur W. Jennings Jr., Ward 8  
Thomas Deller, City of Providence  
Robert F. McMahon, Providence Parks Department  
David Heislein, Mactec  
Amelia Rose, EJLRI  
Knight Memorial Library – Project Repository



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

December 12, 2011

**REMEDIAL DECISION LETTER  
CASE NO. 2006-011**

Mr. Gregory L. Simpson  
Project Manager  
Textron, Inc.  
40 Westminster Street  
Providence, RI 02903

RE: Former Gorham Manufacturing Facility – Park Parcel (a.k.a. Parcel D) – Phase I  
333 Adelaide Ave., Providence, RI  
**Case No. 2005-059 (Associated with Case No. 97-030)**

Dear Mr. Simpson:

On November 9, 2011, 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 a timely and cost-effective manner. A **Remedial Decision Letter (RDL)** is a formal, written communication from the Department that approves a site investigation, identifies the preferred remedial alternative and authorizes the development of a Remedial Action Work Plan in order to achieve the objectives of the environmental clean-up.

The Department has the following documents on file in the matter of the above referenced “Site” (as defined in the Industrial Property Remediation and Reuse Act):

1. A Report on the Distribution of Organic Components and Trace Metals in Mashapaug Pond Sediments, prepared by James G. Quinn, James S. Latimer and John T. Ellis of the Graduate School of Oceanography at the University of Rhode Island, and dated April 1986;
2. Correspondence entitled, “*Gorham Manufacturing Co. Facility, Phase I Report*,” prepared by Buonicore-Cashman Associates, and dated July 13, 1987;
3. Environmental Assessment, Adelaide Avenue Plant, Providence, Rhode Island, prepared by Goldberg-Zoino & Associates, Inc., and dated April 1988;

4. Soil and Ground Water Contamination Site Assessment of the Gorham Manufacturing Facility, Providence, RI, prepared by Hunter, Inc., and dated May 25, 1989;
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22. Supplemental Site Investigation Work Plan to Support Human Health and Ecological Risk Assessment Activities, Park Parcel/Mashapaug Cove, Former Gorham Manufacturing Property, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC Engineering and Consulting, Inc. (MACTEC), dated November 2005, and received November 17, 2005;
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29. Letter from the City of Providence to the Department, Re: *Reply to Slag Pile Removal Letter Dated 21 September 2006, Former Gorham Manufacturing Facility – Park Parcel, 333 Adelaide Ave., Providence, Rhode Island*, and dated September 29, 2006;
30. Slag Removal Action Summary Report, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated September 29, 2006;
31. Submittal of Technical Report, Geophysical Survey, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, prepared by MACTEC, and dated October 2, 2006;
32. Letter from Textron to the Department, Re: *Response to RIDEM Slag Pile Removal Comments, Former Gorham Manufacturing Facility, Providence, RI*, dated October 3, 2006;
33. Letter from Robert Dorr to EA Engineering Science and Technology, Inc. (EA), Re: *Alternative Route to Park Parcel*, dated October 6, 2006;
34. Park Parcel Consent Order Compliance - Summary of Soil & Debris Pile Removal, Former Gorham Manufacturing Facility, Plat 51 – Lots 323, 324, and 326, 333 Adelaide Avenue, Providence, Rhode Island, Case No. 97-030 (Including Case No. 2005-029 and 2005-059), prepared by EA, and dated October 19, 2006;
35. Former Slag Pile Area Supplemental Removal Action Work Plan, Former Gorham Manufacturing Facility, Plat 51 – Lots 323, 324, and 326, 333 Adelaide Avenue, Providence, Rhode Island, Case No. 97-030 (Including Case No. 2005-029 and 2005-059), prepared by MACTEC, and dated October 26, 2006;
36. Letter from Robert Dorr to Mactec Re: *MACTEC Files - Textron UST Closure Reports Jan '81 thru Jan '99*, dated October 28, 2006;
37. Electronic mail (e-mail) from Textron to the Department, Subject: *Former Gorham Manufacturing Site - Slag Information*, dated November 2, 2006, including attachments a) Letter from Kenneth Kastner (Hogan & Hartson) to Jamieson Schiff (Textron), and b) Enclosures to Letter from Kenneth Kastner to Jamieson Schiff, both dated November 1, 2006;
38. E-mail from Textron to the Department, Subject: *Response to RIDEM November 6, 2006 Letter*, dated November 7, 2006;
39. Letter from Robert Dorr to Textron Re: *Community Response to Textron's Assertion that the Gorham Manufacturing Smelter was a former "Primary Lead Processing Facility,"* dated November 14, 2006;
40. Remedial Project Information Sheet – July 2006, Supplemental Investigation of Parcels C & D and Mashapaug Cove, Former Gorham Manufacturing Facility, prepared by Textron, and Distributed at the December 4, 2006, Gorham/Textron Site Public Meeting;

41. Letter from Sylvia Aldredge to the Department, Re: *Textron Remediation Responsibilities – (former) Gorham Textron Dump Site, 333 Adelaide Avenue, Parcel D, the So-Called Park Parcel*, and dated December 7, 2006;
42. Former Slag Pile Area Supplemental Removal Action Work Plan, Former Gorham Manufacturing Facility, Plat 51 – Lots 323, 324, and 326, 333 Adelaide Avenue, Providence, Rhode Island, Case No. 97-030 (Including Case No. 2005-029 and 2005-059), prepared by MACTEC, and dated January 16, 2007;
43. Response to Comments, Supplemental Site Investigation Report, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, July 2006, prepared by MACTEC, and dated February 1, 2007;
44. Response to Comments, Former Slag Pile Area Supplemental Removal Action Work Plan, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, January 16, 2007, prepared by MACTEC, and dated February 26, 2007;
45. Letter from Robert Dorr to Textron Re: *Slag Pile Removal Action Work Plan – Community Comments*, dated April 22, 2007;
46. Community Information Session Newsletter, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated June 25, 2007;
47. Supplemental Site Investigation Report Addendum June 2007, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated June 28, 2007;
48. Letter from the Gorham area Community to Mactec, Re: *Park Parcel - Accelerated Phase 1 Remediation, Supplemental Site Investigation Report Addendum, Community Concerns and Comments*, dated July 11, 2007;
49. Letter from the Gorham area Community to Textron, Re: *Community Stakeholders*, dated July 23, 2007;
50. Letter from Textron to Robert Dorr Re: *Former Gorham Manufacturing Site, Providence, RI*, dated July 26, 2007;
51. Letter from the Gorham area Community to the Department, Re: *Textron's Park Parcel Remediation Plan, Community Stake holder's Comments, First Opportunity for Public Response*, dated September 5, 2007;
52. Gorham Public Questions & Answers, Park Parcel Public Meeting, Former Gorham Manufacturing Site, Providence, Rhode Island, August 23, 2007, prepared by MACTEC, and dated October 22, 2007;

53. December 2007 Investigation Activities, Building N Underground Storage Tanks, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated January 8, 2008;
54. Letter from Textron to the Department, Re: Phase I Park Parcel Closure, Former Gorham Manufacturing Site, prepared by Textron, and dated February 20, 2008;
55. Letter from Textron to the Department, Re: Park Parcel Remediation, Former Gorham Site, prepared by Textron, and dated March 12, 2008;
56. Building N Underground Storage Tanks Closure Report, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated April 3, 2008;
57. Letter from the Gorham area Community to RIDEM, Re: *Park Parcel Remediation - Incomplete Investigation – RAWP*, dated April 4, 2008;
58. Mashapaug Cove Groundwater Investigation, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated December 12, 2008;
59. Groundwater Investigation Work Plan, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated October 14, 2009;
60. Data Summary Report, Mashapaug Cove Groundwater Investigation, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated April 7, 2010;
61. Letter from Environmental Justice League of Rhode Island (EJLRI) to the Department, dated May 19, 2010;
62. Park Parcel Phase I, Recommended Remedial Action, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated May 17, 2011;
63. Notes from Textron Public Meeting on Parcel D Phase 1 Remediation Plan, July 12, 2011, 6pm-8pm, Renaissance Church, 77 Reservoir Avenue, prepared by the Environmental Justice League of Rhode Island (EJLRI), and received via e-mail on July 20, 2011;
64. E-mail comments - Subject: Gorham – Textron Public Meeting – Tuesday, July 12<sup>th</sup> 6pm, dated July 15, 2011, and forwarded to the Department by the EJLRI on August 8, 2011;
65. Comment letter, submitted on behalf of the EJLRI, dated August 8, 2011, and received via e-mail on August 8, 2011;

66. Comment letter, submitted on behalf of the Brown University Superfund Research Program Community Engagement Core, and received via e-mail on August 9, 2011;
67. Technical Review of Recommended Remedial Action, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by GEI Consulting (GEI), dated August 9, 2011, and submitted via e-mail by the EJLRI on August 9, 2011; and
68. Response to Comments, July 12, 2011 Phase I Park Parcel Public Meeting, Former Gorham Manufacturing Facility, 333 Adelaide Ave., Providence, RI, prepared by AMEC Environment & Infrastructure (AMEC), and dated November 16, 2011.

Collectively, these documents define “Existing Contamination” at the Site, and fulfill the requirements of a Site Investigation Report (SIR) as described in Rule 7.08 of the Remediation Regulations. In addition, according to our records, public notice was conducted to all abutting property owners, tenants, members of the local community, the City of Providence and all utilities with easements on the property regarding the substantive findings of the completed investigation in accordance with Rules 7.07 and 7.09 of the Remediation Regulations. The Department has received documentation demonstrating that the requirements of Rhode Island General Laws (R.I.G.L.), Title 23, Health and Safety, Chapter 23-19.14, Industrial Property Remediation and Reuse Act, 23-19.14-5, Environmental Equity and Public Participation, have been fulfilled. The opportunity for public review and comment on the technical feasibility of the proposed remedial alternatives commenced with a Public Meeting on July 12, 2011, and following a requested 14 day extension, the period closed on August 9, 2011. Comments were received and responded to as documented in the previously referenced items 63 through 68.

The preferred remedial alternative, as stated in the SIR, involves a three phased approach to the remediation of the Park Parcel and Mashapaug Cove. **Phase I, which is the subject of this Remedial Decision Letter, includes the limited removal of surface soil with post-removal confirmation sampling at three locations in the western shoreline area, additional soil removal at two locations within the former slag pile area, and encapsulation of any soil exceeding a residential direct exposure criteria within the Park Parcel Phase I area, in order to contain historic fill material, prevent direct exposure, limit infiltration in the former slag pile area, and restrict wind erosion or surface run-off. Upon completion of the remedial activities, an Environmental Land Usage Restriction (ELUR) will be recorded on the deed for the Park Parcel. The ELUR shall include a post-construction Soil Management Plan (SMP), which will outline the procedures for managing the soils on site should disturbances below the cap be required. As part of the ELUR, it shall be the responsibility of the property owner to provide for annual inspections of the property by a qualified environmental professional, and to submit a report, subject to review by the Department, which shall certify that the property is in compliance with the Department approved remedy and the terms of the ELUR. The Department will also perform random audits of the remedy. Textron shall maintain and monitor the completed engineered cap in the Phase I area until the responsibility is taken over by the City of Providence or Providence Redevelopment Authority (PRA).**

**The proposed Phase I soil cap consists of three distinct components including a fill area cap, a wetland buffer cap, and a former slag area cap. The fill area extends along the top of the**

western slope and extends along the shoreline of Mashapaug Pond's inner cove. The fill area will be capped with a minimum of two feet of clean soil consisting of 18 inches of cover soil covered by six inches of top soil, then seeded or stabilized with erosion control matting. The portions of the fill area cap along the area of the Gorham site known as Parcel B (a.k.a. Alvarez High School) and Parcel C (a.k.a. the undeveloped lot to the west of Alvarez High School, formerly proposed for a YMCA), will match the existing grade at the High School boundary and the proposed future grade at the Parcel C boundary. The wetland buffer area consists of the area within the 50 foot wetland boundary (delineated approximately five to ten feet upland from the Mashapaug cove shoreline). An effort will be made to save as many large trees within the buffer zone as possible, however clearing and grubbing of the wetland buffer zone scrub material will be conducted to support the installation of the soil cap. One foot of soil at the toe of the wetland buffer zone will be removed to allow the soil cap to key into the existing grade above the wetland boundary. Twelve inches of clean soil will then be spread throughout the buffer zone to provide the soil cap. The finished surface for the wetland buffer cap will be stabilized with erosion control matting, and Department approved wetland vegetation will be planted as part of the wetland buffer area restoration.

All of the Phase I work will be conducted outside of the wetland boundary, with all of the remediation work within the freshwater wetlands to be conducted in the future as part of the Phase II cove sediment remediation. The cap design for the former slag area includes a geotextile membrane to limit infiltration and restrict contact with the underlying soils. The existing soil will be graded and capped with six inches of clean sand, followed by a 40-mil geotextile membrane, a drainage composite layer, twelve inches of clean cover soil, and an additional six inches of clean top soil, which will be seeded or stabilized with erosion control matting. The existing chain link fence will be relocated along the boundary between Parcels C and D, and temporary fencing will remain in place to restrict access to the steep slope down to the shoreline and until the cove sediments (Phase II) and remaining Parcel D surface soils (Phase III) have been remediated. All existing groundwater monitoring wells within the Phase I cap will be secured during construction activities and maintained for future groundwater monitoring purposes. Former groundwater monitoring well GZA-5 will be restored to its location within the former slag pile area, and one additional monitoring well will be installed downgradient of the former slag pile area for future groundwater monitoring purposes. The implementation and completion of the Phase I work shall in no way interfere with the eventual implementation and completion of Phase II, Phase III, or an eventual groundwater remedy for the overall Gorham site. Upon Textron's completion of remedial activities on the Park Parcel and stable establishment of the cap, responsibility for maintaining the remedy and any future development of the Park Parcel shall be assumed by the owner of the property, currently the City of Providence through the PRA.

The Department hereby approves the SIR, with the above identified preferred remedial alternative, and requires a Remedial Action Work Plan (RAWP) be submitted for review and approval, and implemented, to achieve the objectives of the environmental clean-up, in accordance with the following conditions:

1. In accordance with Sections 8.0 and 9.0 of the Remediation Regulations, a RAWP, a draft ELUR, and SMP shall be submitted for Department review and approval within 90 days

(February 28, 2012). The RAWP shall describe all technical details, engineer design elements, and schedules associated with the implementation of the proposed remedy. All of the subsections outlined in Section 9.0 of the Remediation Regulations must be included in order to facilitate the review and approval of the RAWP. If an item is not applicable to this Site, simply state that it is not applicable and provide an explanation in the RAWP.

2. Pursuant to Rule 10.02 of the Remediation Regulations, an application fee for Remedial Action Approvals in the amount of one thousand (\$1,000) dollars shall be made payable to the State of Rhode Island General Treasurer and remitted to this office with submission of the RAWP.
3. Once the Department reviews the RAWP for consistency with Sections 8.0 and 9.0 of the Remediation Regulations, any written comments generated and forwarded as a result of the review(s) shall be incorporated forthwith into a revised RAWP, to be re-submitted for final approval.
4. Upon finalization of the RAWP, the Department will issue a Remedial Approval Letter (RAL), signifying Department approval. All remedial measures required by the Department shall be implemented, in accordance with the approved schedule, to ensure all applicable exposure pathways at the Site are appropriately addressed.

**Please be advised that the Department reserves the right to require additional actions under the aforementioned Remediation Regulations at the Property should any of the following occur:**

- A. Conditions at the Site previously unknown to the Department are discovered;
- B. Information previously unknown to the Department becomes available;
- C. Policy and/or regulatory requirements change; and/or
- D. Failure by Textron or any future holder of any interest in the Property to adhere to the terms and conditions of the Department approved RAWP, schedule, RAL, ELUR and/or SMP for the Property.

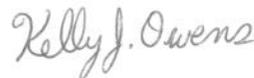
If you have any questions regarding this letter, please contact me by telephone at (401) 222-2797 extension 7109 or by e-mail at [joseph.martella@dem.ri.gov](mailto:joseph.martella@dem.ri.gov).

Sincerely,



Joseph T. Martella II  
Senior Engineer  
Rhode Island DEM  
Office of Waste Management

Authorized by,



Kelly J. Owens  
Supervising Engineer  
Rhode Island DEM  
Office of Waste Management

cc: Terrence D. Gray, P.E., Assistant Director, RIDEM/AW&C  
Susan Forcier, Esq., RIDEM/OLS  
Elizabeth Scott, RIDEM/OWR  
Ron Gagnon, RIDEM/OC&TA  
Jenna McIntyre, RIDEM/ OC&TA  
Robert Vanderslice, PhD, RIDOH  
Hon. Angel Taveras, Mayor, City of Providence  
Senator Juan M. Pichardo, District 2  
Representative Scott A. Slater  
Councilman Wilbur W. Jennings Jr., Ward 8  
Thomas Deller, City of Providence  
Robert F. McMahon, Providence Parks Department  
David Heislein, AMEC  
Amelia Rose, EJLRI  
Knight Memorial Library – Project Repository



August 10, 2012

**REMEDIAL APPROVAL LETTER**

**Case No. 2005-059 (Associated with Case No. 97-030)**

Mr. Gregory L. Simpson  
Project Manager  
Textron, Inc.  
40 Westminster Street  
Providence, RI 02903

RE: Former Gorham Manufacturing Facility  
Park Parcel (a.k.a. Parcel C-1; f.k.a. Parcel D) – Phase I  
333 Adelaide Ave., Providence, RI

Dear Mr. Simpson:

On November 9, 2011, 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 an efficient manner. A **Remedial Approval Letter** (RAL) is a document used by the Department to approve remedial actions at contaminated sites that do not involve the use of complex engineered systems or techniques (e.g., groundwater pump and treat systems, soil vapor extraction systems, etc.).

The Department's Office of Waste Management (OWM) has the following documents on file in the matter of the above referenced "Site" (as defined in the Industrial Property Remediation and Reuse Act), submitted on behalf of Textron, Inc. (Textron):

1. Draft Remedial Action Work Plan, Phase I Soil Capping: Parcel D, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (Draft RAWP), prepared by AMEC Environment & Infrastructure (AMEC), and dated February 27, 2012;
2. Draft Environmental Land Usage Restriction (ELUR) and Soil Management Plan (SMP), submitted via e-mail by Textron, Inc., on April 5, 2012;

3. Department Comment Letter, Re: Draft Remedial Action Work Plan, Former Gorham Manufacturing Facility – Park Parcel (a.k.a. Parcel D), 333 Adelaide Ave., Providence, RI, Case No. 2005-059 (Associated with Case No. 97-030), and dated May 10, 2012;
4. Remedial Action Work Plan, Phase I Soil Capping: Parcel C-1, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by AMEC, dated June 13, 2012, and received June 20, 2012;
5. Response to May 10, 2012 Comments, Rhode Island Department of Environmental Management, Draft Remedial Action Work Plan, Former Gorham Manufacturing Facility - Park Parcel (a.k.a. Parcel C-1), 333 Adelaide Ave., Providence, RI, Case No. 2005-059 (Associated with Case No. 97-030), prepared by AMEC, dated June 14, 2012, and received June 20, 2012;
6. Revised Response to May 10, 2012 Comments, Rhode Island Department of Environmental Management, Draft Remedial Action Work Plan, Former Gorham Manufacturing Facility - Park Parcel (a.k.a. Parcel C-1), 333 Adelaide Ave., Providence, RI, Case No. 2005-059 (Associated with Case No. 97-030), prepared by AMEC, and dated August 1, 2012; and
7. Remedial Action Work Plan, Phase I Soil Capping: Parcel C-1, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (RAWP), prepared by AMEC, dated and received August 10, 2012.

Subject to the conditions herein, these documents fulfill the requirements of Section 8.00 (Risk Management) and Section 9.00 (Remedial Action Work Plan) of the Remediation Regulations, and describe a plan to remediate existing contamination pursuant to 23-19.14-1 et seq., and the Department's Remediation Regulations, as amended November 9, 2011, in accordance therewith.

This RAL places primary responsibility for the construction, operation, maintenance and monitoring of the approved Remedial Action Work Plan (RAWP) and its associated remedy on Textron. As the responsible party and performing party, Textron is expected to implement the RAWP in an expeditious and professional manner that prevents non-compliance with the RAL and RAWP, and protects human health and the environment.

The selected remedial alternative involves a three phased approach to the remediation of the Park Parcel and Mashapaug Cove. **The RAWP and associated documents for Phase I, describe a plan to remediate the existing soil contamination at the property through the limited removal of surface soil with post-removal confirmation sampling at three locations in the western shoreline area, additional soil removal at two locations within the former slag pile area, and encapsulation of any soil exceeding a residential direct exposure criteria within the Park Parcel Phase I area, in order to contain historic fill material, prevent direct exposure, limit infiltration in the former slag pile area, and restrict wind erosion or surface run-off. Upon completion of the remedial activities, an Environmental Land Usage Restriction (ELUR)**

will be recorded on the deed for the Park Parcel (designated Parcel C-1). The ELUR shall include a post-construction Soil Management Plan (SMP), which will outline the procedures for managing the soils on site should disturbances below the cap be required. As part of the ELUR, it shall be the responsibility of the property owner to provide for annual inspections of the property by a qualified environmental professional, and to submit a report, subject to review by the Department, which shall certify that the property is in compliance with the Department approved remedy and the terms of the ELUR. The Department will also perform random audits of the remedy. Textron shall maintain and monitor the completed engineered cap in the Phase I area until the responsibility is taken over by the City of Providence, Providence Redevelopment Authority (PRA), or a future successor.

The proposed Phase I soil cap consists of three distinct components including a fill area cap, a wetland buffer cap, and a former slag area cap. The fill area extends along the top of the western slope and extends along the shoreline of Mashapaug Pond's inner cove. The fill area will be capped with a marker fabric and minimum of two feet of clean soil consisting of 18 inches of cover soil covered by six inches of top soil, then seeded or stabilized with erosion control matting. The portions of the fill area cap along the area of the Gorham site known as Parcel B (a.k.a. Alvarez High School) and Parcel C (a.k.a. the undeveloped lot to the west of Alvarez High School, formerly proposed for a YMCA), will match the existing grade at the High School boundary and the proposed future grade at the Parcel C boundary. The wetland buffer area consists of the area within the 50 foot wetland boundary (delineated approximately five to ten feet upland from the Mashapaug cove shoreline). The limit of work will be approximately 10 feet above the waterline; therefore no Phase I work will be conducted within the delineated wetland. An effort will be made to save as many large trees within the buffer zone as possible, however clearing and grubbing of the wetland buffer zone scrub material will be conducted to support the installation of the soil cap. One foot of soil at the toe of the wetland buffer zone will be removed to allow the soil cap to key into the existing grade above the wetland boundary. A marker fabric will be installed over the fill material surface. Twelve inches of clean soil will then be spread throughout the buffer zone to provide the soil cap. The finished surface for the wetland buffer cap will be stabilized with erosion control matting and Department approved wetland grasses as part of the wetland buffer area restoration.

All of the Phase I work will be conducted outside of the wetland boundary, with all of the remediation work within the freshwater wetlands to be conducted in the future as part of the Phase II cove sediment remediation. The cap design for the former slag area includes a geotextile membrane to limit infiltration and restrict contact with the underlying soils. The existing soil will be graded and capped with six inches of clean sand, followed by a 40-mil geotextile membrane, a drainage composite layer, twelve inches of clean cover soil, and an additional six inches of clean top soil, which will be seeded or stabilized with erosion control matting. The existing chain link fence will be relocated along the boundary between Parcels C and C-1, until the cove sediments (Phase II) and remaining Parcel C-1 surface

soils (Phase III) have been remediated. All existing groundwater monitoring wells within the Phase I cap will be secured during construction activities and maintained for future groundwater monitoring purposes. Former groundwater monitoring well GZA-5 will be restored to its location within the former slag pile area, and one additional monitoring well will be installed downgradient of the former slag pile area for future groundwater monitoring purposes. The implementation and completion of the Phase I work shall in no way interfere with the eventual implementation and completion of Phase II, Phase III, or an eventual groundwater remedy for the overall Gorham site. Upon Textron's completion of remedial activities on the Park Parcel and stable establishment of the cap, responsibility for maintaining the remedy in the future and any future development of the Park Parcel shall be assumed by the owner of the property, currently the City of Providence through the PRA.

Based upon review and consideration of the above referenced documents, the Department approves the proposed RAWP through this RAL provided that all activities, procedures, operations, and schedules detailed in the RAWP, and the conditions listed below, are strictly adhered to:

- 1) All work, operations, activities and schedules shall be performed in accordance with the terms and conditions of this RAL, the Department approved RAWP, and all other applicable federal, state and local laws and regulations.
- 2) Textron shall prepare and distribute a community notice to the residents in the reservoir triangle neighborhood and to other interested parties (e.g. community groups and local elected officials). The notice shall be printed in English and Spanish and shall include an estimated schedule for remedial activities and construction, a brief description of the work to be performed and the precautions to be taken to protect the community, and relevant contact information for Textron, Amec and its on-site contractors as applicable (i.e. name, phone, e-mail ... etc.) for questions and complaints.
- 3) Work shall be initiated at the Site within thirty (30) days of receipt of this RAL.
- 4) No hazardous waste shall be accepted from any off-site sources for treatment or disposal at the Site.
- 5) Sampling and analysis of all media involved in the Remedial Action shall be conducted in accordance with the requirements of the RAWP and this RAL.
- 6) The Department shall be notified as soon as possible, in accordance with Section 9.08 of the Remediation Regulations, of any consultant or contractor that has not yet been determined at the time that this approval was granted. This requirement also includes the name and contact information for the receiving licensed disposal facility(s) to be utilized in the event that

proper off-Site disposal of any excess excavated regulated material or collected water from dewatering activities is required.

- 7) Any significant changes to the RAWP shall be pre-approved by the OWM, and any minor changes shall be reported to the OWM by telephone within one (1) working day and in writing within five (5) working days.
- 8) Appropriate procedures shall be implemented to manage, control and monitor regulated soil and dust in a manner consistent with the RAWP and the RAL, including but not limited to the following:
  - a) Air monitoring will be completed during all remedial activities at the Site that have the potential to disturb fill/soil. Strict operational controls shall be in place to reduce the potential for dust emissions during the remediation activities and air quality within and surrounding the work area shall be monitored (including exposure monitoring for on-site workers in the work area and ambient air monitoring within the work area and at the work area perimeter).
  - b) The air monitoring program shall include visual monitoring and a handheld mini-RAM to measure dust levels immediately downwind of the construction activities. Readings will be logged every two hours of the work day and shall include notations regarding ongoing construction activities being monitored, engineering controls being implemented, the monitoring results and any required corrective actions. At the end of each week the logs shall be scanned and PDF files provided to the OWM via email the following Monday for upload to the project website. The perimeter monitors shall run the length of time that activity is conducted at the Site.
  - c) If visible dust conditions are sustained for more than one minute within the work zone, dust suppression methods (i.e., water spray) will be implemented immediately to reduce airborne dust levels. Dust suppression will be performed throughout the capping activities and will include spraying of fine mist of water over exposed soils to suppress dust as needed.
  - d) If dust concentrations reach the action level ( $0.29 \text{ mg/m}^3$ ) within the work area (sustained for more than 1 minute), soil disturbing operations will be suspended and dust control measures implemented to prevent recurrence. The source of the elevated dust will be identified and immediate steps will be taken to reduce dust levels and correct the problem. For the perimeter dust monitors, the alarm level will be set to trigger at  $0.2 \text{ mg/m}^3$ . If an alarm is triggered, the source of the elevated dust reading will be investigated and identified if possible, and immediate steps will be taken to reduce dust levels

- 9) Any temporarily stockpiled soils shall be placed upon and covered with polyethylene of thickness at least 6-mil or greater to prevent tearing, and segregated from clean fill material to prevent cross contamination.
- 10) All excess fill material generated on site shall have all solid waste and debris removed prior to reuse as closure cap subgrade beneath the marker fabric layer.
- 11) Any material discovered during excavation activities that qualifies as "Solid Waste," as defined by the Department's Solid Waste Regulations, must be disposed of at a licensed Solid Waste Facility.
- 12) Any portion of the RAWP conducted on the Site which falls under the jurisdiction of the Department's Freshwater Wetlands Program, and is not considered an exempt activity under Rule 6.08 (Site Remediation) of the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act (the Wetlands Regulations), must be done in accordance with the Wetlands Regulations, including but not limited to the timely acquisition of a Wetlands Permit.
- 13) Any portion of the RAWP conducted on the Site which falls under the jurisdiction of the Department's Office of Water Resources (OWR), Rhode Island Pollution Discharge Elimination System (RIPDES) Program, must be performed in compliance with all appropriate OWR/RIPDES Rules and Regulations, including but not limited to the timely acquisition of a RIPDES Permit or a General Permit for Storm Water Discharge Associated with Construction Activity as appropriate and/or applicable.
- 14) All waste derived from implementation of the RAWP shall be managed in accordance with the Department's Remediation Regulations, Rules and Regulations for Hazardous Waste Management, and Solid Waste Regulations, as appropriate. In accordance with Rule 11.07 (Initiator) of the Remediation Regulations, Textron must comply with the requirements of the Solid Waste Regulations, as amended, for all solid waste shipments that they initiate, and documentation of disposal shall be provided to the OWM.
- 15) Within sixty (60) days of completion of the Remedial Action described in the RAWP, a Remedial Action Closure Report, detailing the Remedial Action and current site status, shall be submitted to the OWM for review and approval. The Remedial Action Closure Report shall include at a minimum the following items:
  - a) A post remediation survey of the entire Phase I Park Parcel Site with as-built plans demarcating the exact location (e.g. vertical and horizontal extent and type) of the installed engineered controls, including: geotextile marker fabric, clean fill, and as applicable any utilities, structures, basins, swales, storm water management features, and current groundwater monitoring locations.

- b) Analytical results and summary of all air and dust monitoring and/or sampling performed throughout the project.
  - c) All original laboratory analytical data results from the remedial activities, compliance and confirmation sampling, as applicable.
  - d) Documentation that all excess regulated soil, solid waste, remediation waste, etc. was properly disposed of off site at an appropriately licensed facility in accordance with all applicable laws.
- 16) Textron, its representatives, employees, agents and contractors shall adhere to the following timelines in its management, operation and maintenance of the Site.
- a) Textron shall immediately notify the OWM of any Site or operating condition that results in non-compliance with this RAL.
  - b) The OWM shall be notified in writing immediately if Textron suspects or has reason to believe that any of the remedial objectives will not be met.
  - c) The OWM will be notified a minimum of five (5) working days in advance of any changes in contractors and/or consultants for the remedial activities in this RAWP, and will be promptly supplied with complete contact information for each new contractor or consultant (including but not limited to company name and address, contact name and address, contact telephone number and e-mail address).
  - d) Any RAWP interruptions shall be reported to the OWM by telephone within one (1) working day and in writing within seven (7) days.

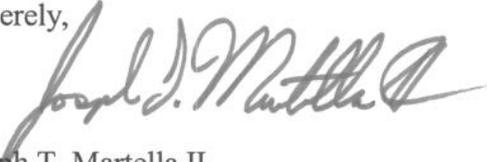
Please be advised that the latest version of the draft ELUR is currently under review by the Department's Office of Legal Services (OLS) and any comments resulting from that review will be promptly forwarded to Textron and the City of Providence. Once the language of the ELUR is finalized, and the Department has approved the Remedial Action Closure Report, Textron shall direct the City of Providence to have the final Department approved ELUR recorded in the Providence land evidence records, and submit a recorded (stamped) copy to the OWM within fifteen (15) days of the date that it is recorded in accordance with Rule 8.09 of the Remediation Regulations.

This RAL does not remove Textron's obligation to obtain any other necessary permits from other local, state, and/or federal agencies (including the Department) that may be necessary to comply with this RAL. Textron is reminded of its obligation for securing any required permits and other approvals prior to commencing any Site activities. **Please notify the OWM at least forty-eight (48) hours in advance of any remedial work.**

As the performing party, Textron shall be responsible for properly conducting the above-listed activities. Please review the stipulations of this RAL thoroughly to ensure your compliance with the requirements.

All correspondences should be sent to my attention. If you have any questions regarding this letter or if you would like the opportunity to meet again with Department personnel, 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  
Rhode Island DEM  
Office of Waste Management

Authorized by,



Kelly J. Owens  
Supervising Engineer  
Rhode Island DEM  
Office of Waste Management

cc: Terrence D. Gray, P.E., Assistant Director, RIDEM/AW&C  
Leo Hellested, P.E., RIDEM/OWM  
Susan Forcier, Esq., RIDEM/OLS  
Elizabeth Scott, RIDEM/OWR  
Ron Gagnon, RIDEM/OC&TA  
Jenna McIntyre, RIDEM/OC&TA  
Ann Battersby, RIDEM/OC&TA  
Christopher Walusiak, RIDEM/OC&TA  
Barbara Morin, RIDEM/OAR  
Robert Vanderslice, PhD, RIDOH  
Hon. Angel Taveras, Mayor, City of Providence  
Senator Juan M. Pichardo, District 2  
Representative Scott A. Slater  
Councilman Wilbur W. Jennings Jr., Ward 8  
Robert E. Azar, Providence Planning Department  
April H. Wolf, Providence Planning Department  
Robert F. McMahon, Providence Parks Department  
David Heislein, AMEC  
Amelia Rose, EJLRI  
Knight Memorial Library – Project Repository



**PROGRAM LETTER**

January 20, 2015

**File No. SR-28-0549D**

(Formerly Case No. 2005-059 - Associated with Case No. 97-030)

Mr. Gregory L. Simpson, Project Manager  
Textron, Inc.  
40 Westminster Street  
Providence, RI 02903

RE: Former Gorham Manufacturing Site  
Phase II Area- Mashapaug Pond and Cove, Phase III Area - Northeast Upland and Parcel C  
333 Adelaide Avenue, Providence, Rhode Island

Dear Mr. Simpson:

On November 9, 2011, the Rhode Island Department of Environmental Management's (the Department) Office of Waste Management (OWM) enacted the amended 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 petroleum and hazardous material contaminated sites in order to eliminate and/or control threats to human health and the environment in an efficient manner. A Program Letter is a document used by the Department to signify that a Site Investigation has been completed and that a Performing Party must conduct public notice in accordance with Rules 7.07(A)(ii) and 7.09 of the Remediation Regulations concerning the findings of the investigation and the proposed remedial alternatives.

In the matter of the above-referenced property (the Site), the Department's OWM is in receipt of the following documentation submitted pursuant to the Remediation Regulations in response to the reported release at the Site:

1. Site Investigation Report, Former Gorham Manufacturing Site, Phase II Area – Mashapaug Pond and Cove, Phase III Area – Northeast Upland and Parcel C, 333 Adelaide Avenue, Providence, Rhode Island, received by the Department on November 12, 2013, and prepared by AMEC Environment & Infrastructure, Inc. (AMEC);
2. Site Investigation Report, Former Gorham Manufacturing Site, Phase II Area – Mashapaug Pond and Cove, Phase III Area – Northeast Upland and Parcel C, 333 Adelaide Avenue, Providence, Rhode Island, received by the Department on December 19, 2014, and prepared by AMEC; and

3. Response to RIDEM Review Comments, December 17, 2014 Risk Memo, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, received by the Department on January 19, 2015, and prepared by AMEC.

The Department regards the information provided in these reports as meeting the requirements pursuant to Rule 7.08 of the Remediation Regulations. The preferred remedial alternative proposes the following remedy:

**The Phase II Area Remedial Alternative is removal of approximately two (2) feet of impacted inner cove sediment by either Option A (dredging via hydraulic pumping) or Option B (placement of a Porta Dam between the inner cove and outer cove, dewatering the inner cove and mechanical excavation of the sediment). The excavated and dewatered sediment will be placed in the former Carriage House portion of the Phase III Area, under an engineered cap. After the sediment removal is completed, the remaining inner cove sediments will be capped by one foot of clean soil, followed by wetland restoration activities.**

**The Phase III Area Remedial Alternative is capping of the existing impacted soils in place and capping the excavated and dewatered sediment from the inner cove in the former Carriage House area. The proposed engineered cap will be constructed of a permeable high-visibility marker fabric, placed over the compacted surface soil and impacted sediments, overlain by 12 inches of clean imported topsoil, which will be seeded and maintained.**

**The Parcel C Area Remedial Alternative is an engineered cap consistent with what is proposed for the Phase III Area, constructed of a permeable high-visibility marker fabric, placed over the compacted surface soil and overlain by 12 inches of clean imported topsoil, which will be seeded and maintained.**

The Department acknowledges that the site investigation activities are complete. The Department is not yet able to formally approve the SIR, however, due to the necessity to first allow the public to comment on the technical feasibility of the preferred remedial alternative. Rules 7.07(A)(ii) and 7.09 of the Remediation Regulations outline the requirements for public notice after the SIR is deemed complete to all abutting property owners, tenants, easement holders, the municipality and the Environmental Justice Focus Area, regarding the substantive findings of the completed investigation and the opportunity for public review and comment on the technical feasibility of the preferred remedial alternative. Please submit a draft notification to the Department via E-mail for review and approval prior to distribution. A boilerplate notification to be distributed can be found online at <http://www.dem.ri.gov/programs/benviron/waste/topicrem.htm>. The Department will require a copy of the approved public notice letter and a list of all recipients upon issuance.

The Department will formally approve the SIR in the form of a Remedial Decision Letter (RDL) once Public Notice is completed and upon Department approval of all final responses to relevant public comments. At that point, the Department will require submission of the draft Remedial Action Work Plan (RAWP), Environmental Land Usage Restriction (ELUR), and Soil Management Plan (SMP), for review and approval in accordance with Sections 8.00 and 9.00 of the

Remediation Regulations. Upon receipt of the RDL, be prepared to submit the Remedial Action Approval Application Fee of one thousand dollars (\$1,000.00) in check form made payable to General Treasurer - State of Rhode Island directly to the Office of Management Services.

If you have any questions regarding this letter or would like the opportunity to meet with Department personnel, please contact me by telephone at (401) 222-2797, ext. 7109, or by E-mail at [joseph.martella@dem.ri.gov](mailto:joseph.martella@dem.ri.gov).

Sincerely,



Joseph T. Martella II  
Senior Engineer  
Office of Waste Management

cc: Terrence D. Gray, P.E., Assistant Director, RIDEM/AW&C  
Kelly J. Owens, RIDEM/OWM  
Susan Forcier, Esq., RIDEM/OLS  
Elizabeth Scott, RIDEM/OWR  
Alisa Richardson, RIDEM/OWR  
Charles Horbert, RIDEM/OWR/Freshwater Wetlands Program  
Richard Enander, PhD, RIDEM/OC&TA  
Hon. Jorge Elorza, Mayor, City of Providence  
Senator Juan M. Pichardo, District 2  
Representative Scott A. Slater  
Councilman Wilbur W. Jennings Jr., Ward 8  
Robert E. Azar, Providence Planning Department  
Robert F. McMahon, Providence Parks Department  
David Heislein, AMEC  
EJLRI  
Knight Memorial Library – Project Repository



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

**REMEDIAL DECISION LETTER**

March 27, 2015

**File No. SR-28-0549D**

(Formerly Case No. 2005-059 - Associated with Case No. 97-030)

Mr. Gregory L. Simpson, Project Manager  
Textron, Inc.  
40 Westminster Street  
Providence, RI 02903

RE: Former Gorham Manufacturing Site  
Phase II Area- Mashapaug Pond and Cove, Phase III Area - Northeast Upland and Parcel C  
333 Adelaide Avenue, Providence, Rhode Island

Dear Mr. Simpson:

On November 9, 2011, the Rhode Island Department of Environmental Management's (the Department) Office of Waste Management (OWM) 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 a timely and cost-effective manner. A Remedial Decision Letter (RDL) is a formal, written communication from the Department that approves a site investigation, identifies the preferred remedial alternative and authorizes the development of a Remedial Action Work Plan (RAWP) in order to achieve the objectives of the environmental clean-up.

In the matter of the above-referenced property (the Site), the Department's OWM is in receipt of the following documentation submitted pursuant to the Remediation Regulations in response to the reported release at the Site:

1. Site Investigation Report, Former Gorham Manufacturing Site, Phase II Area – Mashapaug Pond and Cove, Phase III Area – Northeast Upland and Parcel C, 333 Adelaide Avenue, Providence, Rhode Island, received by the Department on November 12, 2013, and prepared by AMEC Environment & Infrastructure, Inc. (AMEC);
2. Site Investigation Report, Former Gorham Manufacturing Site, Phase II Area – Mashapaug Pond and Cove, Phase III Area – Northeast Upland and Parcel C, 333 Adelaide Avenue, Providence, Rhode Island, received by the Department on December 19, 2014, and prepared by AMEC;

3. Response to RIDEM Review Comments, December 17, 2014 Risk Memo, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, received by the Department on January 19, 2015, and prepared by AMEC; and
4. Gorham Public Questions & Answers, Site Investigation Report, Former Gorham Manufacturing Facility, Phase II Area – Mashapaug Pond and Cove, Phase III Area – Northeast Upland Parcel C, 333 Adelaide Ave., Providence, RI, Public Meeting Date: February 5, 2015, Public Comment Period Closed: February 20, 2015, received by the Department on March 16, 2015, and prepared by AMEC.

Collectively, these documents define “Existing contamination” at the Site, and fulfill the requirements of a Site Investigation Report (SIR) as described in Rule 7.08 of the Remediation Regulations. In addition, according to our records, public notice was conducted to all abutting property owners, tenants, easement holders, the municipality and the Environmental Justice Focus Area, regarding the substantive findings of the completed investigation in accordance with Rules 7.07(A)(ii) and 7.09 of the Remediation Regulations. The Department has received documentation demonstrating that the requirements of Rhode Island General Laws (R.I.G.L.), Title 23, Health and Safety, Chapter 23-19.14, Industrial Property Remediation and Reuse Act, 23-19.14-5, Environmental Equity and Public Participation, have been fulfilled. The opportunity for public review and comment on the technical feasibility of the proposed remedial alternatives commenced on February 5, 2015, and the period closed on February 20, 2015. Public comments were received regarding dust management, sediment removal, dewatering activities, and responsibility for maintaining the engineered caps, and were formally responded to in writing on March 17, 2015, by AMEC on behalf of Tectron. No additional comments on the technical feasibility of the proposed remedy were received.

The preferred remedial alternative, as stated in the SIR, consists of the following conceptual measures:

**The Phase II Area Remedial Alternative is removal of approximately two (2) feet of impacted inner cove sediment by placement of a Porta Dam between the inner cove and outer cove, dewatering the inner cove and mechanical excavation of the sediment. The excavated and dewatered sediment will be placed in the former Carriage House portion of the Phase III Area, under an engineered cap. After the sediment removal is completed, the remaining inner cove sediments will be capped by one foot of clean soil, followed by wetland restoration activities.**

**The Phase III Area Remedial Alternative is capping of the existing impacted soils in place and capping the excavated and dewatered sediment from the inner cove in the former Carriage House area. The proposed engineered cap will be constructed of a permeable high-visibility marker fabric, placed over the compacted surface soil and impacted sediments, overlain by 12 inches of clean imported topsoil, which will be seeded and maintained.**

**The Parcel C Area Remedial Alternative is an engineered cap consistent with what is proposed for the Phase III Area, constructed of a permeable high-visibility marker fabric,**

**placed over the compacted surface soil and overlain by 12 inches of clean imported topsoil, which will be seeded and maintained.**

**All remedial areas will be subject to an Environmental Land Usage Restriction (ELUR) and Soil Management Plan (SMP).**

The Department hereby approves the SIR, with the above identified preferred remedial alternative, and requires a RAWP be submitted for review and approval, and implemented, to achieve the objectives of the environmental clean-up, in accordance with the following conditions:

1. In accordance with Sections 8.00 and 9.00 of the Remediation Regulations, a RAWP, ELUR, and SMP shall be submitted for Department review and approval within sixty (60) days from the date of this letter. The RAWP shall describe all of the technical details, engineer design elements, and schedules associated with the implementation of the proposed remedy. All of the subsections outlined in Section 9.00 of the Remediation Regulations must be included in order to facilitate the review and approval of the RAWP. If an item is not applicable to this Site, simply state that it is not applicable and provide an explanation in the RAWP.
2. Pursuant to Rule 10.02 of the Remediation Regulations, an application fee for Remedial Action Approvals in the amount of one thousand (\$1,000.00) dollars shall be made payable to the State of Rhode Island General Treasurer and remitted to the Office of Management Services with the attached Remedial Action Approval Application Fee Form. Receipt of this Remedial Action Approval Application Fee is required prior to the Department's RAWP review.
3. Once the Department reviews the RAWP for consistency with Sections 8.00 and 9.00 of the Remediation Regulations, any written comments generated and forwarded as a result of the review(s) shall be incorporated forthwith into a RAWP Addendum, to be submitted for final approval.
4. Upon finalization of the RAWP, the Department will issue a Remedial Approval Letter (RAL), signifying Department approval. All remedial measures required by the Department shall be implemented, in accordance with the approved schedule, to ensure all applicable exposure pathways at the site are appropriately addressed.

**Please be advised that the Department reserves the right to require additional actions under the aforementioned Remediation Regulations at the Property should any of the following occur:**

- Conditions at the Site previously unknown to the Department are discovered;
- Information previously unknown to the Department becomes available;
- Policy and/or regulatory requirements change; and/or

- Failure by Textron, the City of Providence, or any future holder of any interest in the Property to adhere to the terms and conditions of the Department approved RAWP, schedule, RAL, ELUR and/or SMP for the Property.

If you have any questions regarding this letter or would like the opportunity to meet with Department personnel, please contact me by telephone at (401) 222-2797, ext. 7109, or by E-mail at joseph.martella@dem.ri.gov.

Sincerely,



Joseph T. Martella II  
Senior Engineer  
Office of Waste Management

cc: Terrence D. Gray, P.E., Assistant Director, RIDEM/AW&C  
Kelly J. Owens, RIDEM/OWM  
Susan Forcier, Esq., RIDEM/OLS  
Elizabeth Scott, RIDEM/OWR  
Alisa Richardson, RIDEM/OWR  
Charles Horbert, RIDEM/OWR/Freshwater Wetlands Program  
Richard Enander, PhD, RIDEM/OC&TA  
Michael J. Elliott, Army Corps of Engineers  
Hon. Jorge Elorza, Mayor, City of Providence  
Senator Juan M. Pichardo, District 2  
Representative Scott A. Slater  
Councilman Wilbur W. Jennings Jr., Ward 8  
Robert E. Azar, Providence Planning Department  
Robert F. McMahon, Providence Parks Department  
David Heislein, AMEC  
EJLRI  
Knight Memorial Library – Project Repository

Attachment: Remedial Action Approval Application Fee Form



**Rhode Island Department of Environmental Management  
Office of Waste Management**

**REMEDIAL ACTION APPROVAL APPLICATION FEE FORM**

Rule 10.02 of the Department's Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases, requires an application fee for Remedial Action Approvals in the amount of one thousand (\$1,000) dollars. Please submit this form and check, made payable to the State of Rhode Island General Treasurer, directly to:

**R.I. Department of Environmental Management  
Office of Management Services - Rm 340  
235 Promenade Street  
Providence, RI 02908**

Please complete this page and attach it to the check or money order. This information must be provided to coordinate your fee with the application submitted.

Site Name: Textron Mashapaug Pond – Phase 2

Address: \_\_\_\_\_

Town/City: \_\_\_\_\_

File Number: SR-28-0549D

Contact Person: \_\_\_\_\_

Phone No: \_\_\_\_\_

RIDEM Project Manager: Joseph Martella

**FOR RIDEM OFFICE USE ONLY:**

Fee Amount Received: \_\_\_\_\_

Date Received: \_\_\_\_\_

Check#: \_\_\_\_\_

Receipt Account:

10.074.3765103.03.461043

cc:74:3481 Leg.17-18-841



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

**ORDER OF APPROVAL**

July 9, 2015

**File No. SR-28-0549D**

(Formerly Case No. 2005-059 - Associated with Case No. 97-030)

**CERTIFIED MAIL**

Mr. Gregory L. Simpson, Project Manager  
Textron, Inc.  
40 Westminster Street  
Providence, RI 02903

Doc No: 00121845  
Book # 11167 Page # 54

RE: Former Gorham Manufacturing Site  
Phase II Area - Mashapaug Pond and Cove, Phase III Area - Northeast Upland and Parcel C  
333 Adelaide Avenue, Providence, Rhode Island  
Plat Map 051 / Lot 324

Dear Mr. Simpson:

Enclosed please find the Order of Approval (the Order) for the proposed Remedial Action Work Plan (RAWP), received March 13, 2015, for a multiphase remedy at the abovementioned property. The Phase II area remedy includes removal of impacted inner cove sediment, capping of residual impacted sediment, followed by wetland restoration activities. The Phase III area remedy includes capping of the existing impacted soils in place and capping the excavated and dewatered sediment from the inner cove remedy in the former Carriage House area. The Parcel C remedy includes capping of the existing impacted soils in place. All remedial areas will be subject to an Environmental Land Usage Restriction (ELUR) and Soil Management Plan (SMP). Please review the stipulations of this Order thoroughly to ensure your compliance with the requirements.

Please notify this office 48 hours prior to the beginning of any work related to the remediation of the property. If you have any questions regarding this letter or would like the opportunity to meet with Department personnel, please contact me by telephone at (401) 222-2797, ext. 7109, or by e-mail at joseph.martella@dem.ri.gov.

This Order shall be recorded in the land evidence records of the City of Providence within thirty (30) days of execution and a recorded copy returned to the Department within fifteen (15) days of recording.

Sincerely,

Joseph T. Martella II  
Senior Engineer

Former Gorham Manufacturing Site, Phase II & Phase III Areas & Parcel C  
Order of Approval

July 9, 2015  
Page 1 of 7

Office of Waste Management

cc: Terrence D. Gray, P.E., Assistant Director, RIDEM/AW&C  
Kelly J. Owens, RIDEM/OWM  
Susan Forcier, Esq., RIDEM/OLS  
Alisa Richardson, RIDEM/OWR  
Charles Horbert, RIDEM/OWR/Freshwater Wetlands Program  
Richard Enander, PhD, RIDEM/OC&TA  
Michael J. Elliott, Army Corps of Engineers  
Hon. Jorge Elorza, Mayor, City of Providence  
Senator Juan M. Pichardo, District 2  
Representative Scott A. Slater  
Councilman Wilbur W. Jennings Jr., Ward 8  
Robert E. Azar, Providence Planning Department  
David Heislein, Amec Foster Wheeler  
EJLRI  
Knight Memorial Library – Project Repository

## DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

In the matter of the application for Remedial Action Approval at:  
Former Gorham Manufacturing Site  
Phase II Area - Mashapaug Pond and Cove, Phase III Area - Northeast Upland and Parcel C  
333 Adelaide Avenue  
Providence, Rhode Island  
File No. SR-28-0549D  
(Formerly Case No. 2005-059 - Associated with Case No. 97-030)

### ORDER OF APPROVAL

In the above entitled matter wherein Textron, Inc. (Textron) in their capacity as Former Owner, Responsible Party and Performing Party for the remediation of the property located at 333 Adelaide Avenue (the Site), Providence (Plat 051 / Lot 324), filed with the Rhode Island Department of Environmental Management (the Department) the following document(s), which collectively fulfill the requirements of Section 9.00 (Remedial Action Work Plan) of the Department's Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations), amended November 9, 2011:

1. Remedial Action Work Plan, Phase II Area – Mashapaug Inner Cove, Phase III Area – Northeast Upland, and Parcel C, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, received by the Department on March 13, 2015, and prepared by Amec Foster Wheeler (AFW);
2. Contract Documents and Technical Specifications for Phase II, III and Parcel C Cap, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, received by the Department on June 29, 2015, and prepared by AFW;
3. Contract Drawings, Textron, Inc., Phase II, III and Parcel C Cap, Former Gorham Manufacturing Site, 333 Adelaide Avenue, Providence, Rhode Island, received by the Department on June 29, 2015, and prepared by AFW; and
4. Final Response to RIDEM Review Comments, March 2015 Draft Remedial Action Work Plan, Parcel C and Phase II and Phase III Area Remediation, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, including the Site Perimeter Action Levels and Soil Management Plan, received by the Department on July 6, 2015, and prepared by AFW.

These documents describe a plan to remediate existing contamination pursuant to Rhode Island General Laws 23-19.14-1 et seq. and the Department's Remediation Regulations, as amended November 9, 2011, in accordance therewith.

It is the Department's intent that all conditions set forth in this Order of Approval (Order) shall remain in full force and effect unless specifically altered by the Department in writing. Furthermore, this letter continues to place primary responsibility for the construction, operation, maintenance, and monitoring of the approved Remedial Action Work Plan (RAWP) and its associated implementation

on Textron. As the Responsible Party and Performing Party, Textron is expected to implement the RAWP in an expeditious and professional manner that prevents non-compliance with this Order and said RAWP, and is protective of human health and the environment.

Upon consideration thereof, the Department of Environmental Management's Office of Waste Management (OWM) approves said plan or means to remediate contamination through this Order provided that:

1. Implementation of the RAWP at the Site shall be initiated within sixty (60) days of execution of this Order.
2. The OWM shall receive written notification forty-eight (48) hours prior to the initiation of any remedial activities.
3. Prior to initiating any remedial activities, the Department shall be provided with a list of all contractors, and their respective contact information, that will be used on Site to complete the remedial work described in the Department approved RAWP. The Department shall be notified, when feasible, a minimum of five (5) working days in advance of any changes in contractors and/or consultants involved with the remedial work on this Site. The notification must be promptly supplied in writing with complete contact information for each new contractor or consultant (including but not limited to company name and address, contact name and address, contact telephone number and e-mail address).
4. All work must be performed in accordance with all applicable regulations and the Department approved RAWP, inclusive of schedules, and must be consistent with Section 11.00 of the Remediation Regulations.
5. The multiphase excavation, capping and restoration remedy remediation goal shall be consistent with Rule 8.01 of the Remediation Regulations, achieved in the Phase II area by dewatering the Mashapaug Pond inner cove, removal of the upper two (2) feet of impacted inner cove sediment, capping of residual impacted sediment with one (1) foot of clean material, followed by wetland restoration activities. The Phase III area remedy shall include capping the excavated and dewatered sediment from the inner cove remedy in the former Carriage House area, and capping the remaining existing impacted Phase III area soils in place. The permeable engineered cap shall be constructed of one (1) foot of clean material placed over a geotextile marker barrier. The Parcel C remedy shall include regrading of the Parcel C area followed by capping of the existing impacted soils in place by construction of a permeable engineered cap consisting of one (1) foot of clean material placed over a geotextile marker barrier. All remedial areas will be subject to a Department approved Environmental Land Usage Restriction (ELUR) and Soil Management Plan (SMP). Parcel C groundwater shall be monitored until it is demonstrated to be compliant with the Department's Method 1 GB Groundwater Objectives. Parcel C-1 groundwater shall be monitored until it is demonstrated to be compliant with the Massachusetts Department of Environmental Protection's (MassDEP's) GW-3 Standards.
6. Textron, and their consultant, are aware of the points of compliance requirements and Rule 8.08 of the Remediation Regulations for offsite GB groundwater exceedances (if applicable).

Rule 8.08 requires a Performing Party to meet compliance with the GB Soil Leachability Objectives and GB groundwater objectives for all contaminants of concern at the property line.

7. The remedial objectives for Parcel C groundwater at the Site shall be the GB Groundwater Objectives, as specified in the Department's Remediation Regulations.
8. The remedial objectives for Parcel C-1 groundwater at the Site shall be the GW-3 Standards, as specified in the MassDEP's Massachusetts Contingency Plan, 310 CMR 40.
9. Sampling and analysis of all media involved in the Remedial Action shall be conducted in strict accordance with the RAWP, the Remediation Regulations, and the requirements of this Order.
10. Groundwater samples shall be collected from monitoring wells MW-235S, MW-236S, MW-237S, MW-FS, MW-241 and MW-D. All groundwater samples shall be laboratory analyzed for volatile organic compounds (VOCs) using EPA Method 8260 until all monitoring wells demonstrate a minimum of three (3) consecutive rounds of sampling where concentrations of VOCs in Parcel C groundwater are below the Department's GB Groundwater Objectives and not showing any increasing concentration trends, and VOCs in Parcel C-1 groundwater are below the MassDEP's GW-3 Standards and not showing any increasing concentration trends.
11. Surface water samples shall be collected from the inner and outer coves 30 days after the completion of Phase II inner cove restoration is complete. The samples from locations SED/SW11 (Mashapaug Pond), SED/SW27 and SED/SW28 (inner cove), and SED/SW36 and SED/SW39 (outer cove), shall be analyzed for PAHs, total and dissolved metals and dioxins.
12. Status reports with project updates and laboratory results as applicable will be due monthly through remediation and construction activities and quarterly thereafter at the OWM for review and within thirty (30) days of each sampling event.
13. Results of all environmental sampling shall be sent to Joseph T. Martella II, Office of Waste Management, 235 Promenade Street, Providence, RI 02908.
14. Textron or a future performing party may request an alteration of the compliance sampling frequency. All requests must be submitted in writing to the Department, and are subject to final Department review and approval.
15. The OWM shall be immediately notified of any Site or operational condition that results in non-compliance with this Order.
16. Any interruptions of the remedy shall be reported to the OWM's Project Manager, Joseph T. Martella II, by telephone within one (1) working day and in writing within seven (7) days of occurrence.
17. All waste derived from installation and operation of the remedy shall be disposed of in accordance with the RAWP, the Department's Rules and Regulations for Hazardous Waste Management, the Rules and Regulations for Composting Facilities and Solid Waste

Management Facilities, and the Regulations for the Rhode Island Pollutant Discharge Elimination System, as well as any other applicable local, State, or Federal regulations and policies. Documentation of proper disposal shall be provided to the OWM.

18. This Order does not remove Textron's obligation to obtain any other necessary permits from other local, State, or Federal agencies.
19. Textron shall have this Order recorded by the City of Providence in the City of Providence Land Evidence Records for the subject property within thirty (30) days of execution of this Order and prior to any remedial activities. A copy of the recorded Order (stamped with the book and page number) must be submitted to the Department within fifteen (15) days of recording.
20. Within ninety (90) days of the Department approved conclusion of remedial actions at the Site, submit a Closure Report, detailing the Remedial Action, current Site status, groundwater monitoring results, and all disposal documentation to the OWM.
21. Based upon the results of groundwater monitoring, the Department reserves its rights to require additional remedial actions or monitoring at the Property to achieve final compliance at the Site, if warranted.
22. No hazardous waste shall be accepted from any off-site sources for treatment, storage or disposal at the Site.
23. Closure and removal of the remedial system(s) at the conclusion of the remedy will be contingent upon final Department approval.
24. All excavated regulated soil, if not approved for encapsulation onsite, shall be disposed of off-site at an appropriately licensed disposal facility in accordance with all local, State, and Federal laws. Copies of the material shipping records and manifests associated with the disposal of the material shall be included along with the Closure Report.
25. Areas of the site where contaminated soils are to be excavated must be staged and temporarily stored in a designated area, as proposed in the RAWP, of the site with proper polyethylene covers. Any stockpiled materials, including clean fill, must be underlain and covered with polyethylene sheeting and be secured at the end of each day with all appropriate erosion and sediment controls to limit the loss of the cover and protect against storm-water and wind erosion (i.e. hay bales, rocks, silt fencing). These appropriate sedimentation and erosion controls must be in place and in proper working order at all times until all disturbed areas are stabilized and capped as proposed. Within reason, the storage location will be selected to limit the unauthorized access to the materials (i.e. away from public roadways/walkways). No regulated soil will be stockpiled on-site for greater than thirty (30) days. In the event that 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 required and utilized.
26. The OWM no longer requires the submittal of analytical data prior to clean fill being brought

to a Site. It is the sole responsibility of the Performing Party and their consultant to analyze the material, certify that the material meets the Department's Residential Direct Exposure Criteria (RDEC), as defined by the Remediation Regulations, for all constituents, and is suitable for use on the Site. The OWM strongly suggests that enough representative samples of the clean fill are collected prior to moving the material to the Site to satisfy the Performing Party and their consultant that the material meets the RDEC. Please note that the OWM reserves its rights to sample the fill, if suspect, to confirm compliance with the RDEC.

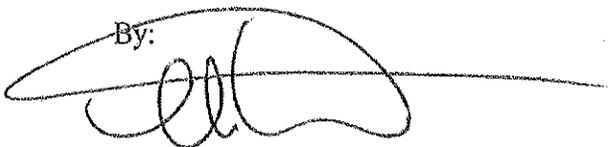
27. All regulated soil remaining onsite shall be encapsulated by an engineered control consistent with those described in the Department approved RAWP.
28. Dust suppression techniques (i.e. watering) must be employed at all times during all soil disturbing/handling activities at the site in order to minimize the generation of fugitive dust.
29. Within sixty (60) days of completion of the work described in the Department approved RAWP, the final Department approved ELUR shall be recorded in the City of Providence Land Evidence Records for the property and a stamped, certified copy returned to the Department within fifteen (15) days of recording. Upon receipt of a copy of the recorded (stamped) ELUR, the OWM will issue an Interim Letter of Compliance.
30. Following recording of the ELUR, the site shall be maintained and annually inspected to evaluate the compliance status of the site with the ELUR. Within thirty (30) days of each annual inspection, an evaluation report shall be prepared and submitted to the OWM detailing the findings of the inspection and noting any compliance violations at the site.
31. Any changes in the activities detailed in the RAWP shall be reported to the OWM by telephone within one (1) working day and in writing within five (5) business days.

This Order shall remain in full force and effect provided said RAWP is implemented in a manner satisfactory to the Department of Environmental Management. Failure to comply with all points outlined in the Department approved RAWP and stipulated in this Order shall result in the revocation of this Order of Approval and may result in the issuance of a Notice of Violation against the Performing Party.

This Order shall be subject to modification or revocation in accordance with law.

Entered as the Order of the Department of Environmental Management this 9<sup>TH</sup> day of July, 2015.

By:



Matthew D. DeStefano  
Deputy Chief, Office of Waste Management  
Department of Environmental Management

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