



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

May 10, 2012

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

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)

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.

In the matter of the above referenced “Site” (as defined in the Industrial Property Remediation and Reuse Act), the Department’s Office of Waste Management (OWM) has on file the following documents regarding the proposed remedial action:

1. 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;
2. Draft Remedial Action Work Plan, Phase I Soil Capping: Parcel D, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (RAWP), prepared by Amec, and dated February 27, 2012;
3. Draft Environmental Land Usage Restriction (ELUR) and Soil Management Plan (SMP), submitted via e-mail by Textron, Inc., on April 5, 2012; and
4. ELJRI Comments and Questions Re: Draft Remedial Action Work Plan for Parcel D Phase I, Submitted by Textron on February 27, 2012, prepared by the Environmental Justice League of Rhode Island (EJLRI), and received via e-mail on April 26, 2012.

Based upon the Department's review of the above listed documents for consistency with Sections 8.00 (Risk Management) and 9.00 (Remedial Action Work Plan) of the Remediation Regulations, the OWM has the following questions and comments:

- 1) Regarding Section 3.1.1 (Western Shoreline Soil Excavation), and Section 3.1.2 (Former Slag Area Removal and Testing) - The descriptions of the excavation activities should specify that all confirmatory soil samples will be grab samples, and should also list the specific laboratory analytical methods to be performed on each collected sample as applicable. In addition, the specific soil management details for all excavated regulated soils (i.e. how it will be managed from the time it is excavated to the time it is placed under a cap or disposed of off site at a licensed disposal facility), should also be described.
- 2) Section 3.3 (Preferred Remedial Alternative) indicates that "*Stormwater management will be included with the construction of the cap to maintain its integrity and recharge stormwater runoff into the buffer zone, wetlands, and Cove.*"
 - a) Please provide a brief but comprehensive description of the proposed plans for stormwater management.
 - b) Regarding the Rhode Island Pollutant Discharge Elimination System (RIPDES) Program review of the RAWP - It is the OWM's understanding that discussions are ongoing between Textron/Amec and the Department's Office of Customer and Technical Assistance (OC&TA) concerning RIPDES Program requirements.
 - c) In its responses to the July 12, 2011 Phase I Park Parcel Public Meeting, specifically Comment 11, Textron indicated "*The design details for stormwater management will be included in the construction drawings and specifications for review by RIDEM prior to construction.*" Please provide a site figure detailing the proposed design details for stormwater management.
- 3) Regarding Section 3.4 (Installation of Monitoring Wells) - The Department concurs that the future groundwater monitoring program for the Gorham Site will be developed as part of the comprehensive Site wide groundwater RAWP.
- 4) Regarding Section 6.0 (Contractors and/or Consultants) - The Department acknowledges that selection of the analytical laboratory and some of the project contractors will be conducted through a bidding process, and when contracts are awarded, Amec will notify the Department. Please clarify whether the construction contractor and the earthworks contractor will be a single contractor, or two individual contractors. Also, please clarify whether there are any other potential contractors that still need to be selected.
- 5) Regarding Section 8.0 (Set Up Plans), which references Specification Section 01110 "Summary of Work" (Appendix B):
 - a) Do the proposed erosion and sedimentation controls include hay bales and silt fencing?

- b) Please provide a site figure detailing the locations and types of proposed erosion and sedimentation controls.
- 6) Section 9.0 (Effluent Disposal), indicates that waste handling and disposal will be in accordance with the requirements of Specification Section 02110 (Waste Excavation, Removal, and Handling) and Section 02120 (Off-Site Transportation and Disposal), however neither of these Sections appear to be included in the RAWP.
- 7) Regarding Section 10.0 (Contingency Plan/Health and Safety Plan):
- a) The Department acknowledges Amec's statement that its Contingency Plans are documented within the Amec Health and Safety Plan (HASP) for Phase I Parcel D Soil Capping, and will be available on site at all times during the implementation and operations of the Phase I remedial action. In accordance with Rule 9.13 of the Remediation Regulations, a copy of the Contingency Plan should be included in the RAWP, so therefore the Department requests that the Amec HASP be included as an attachment or Appendix to the RAWP.
- b) Regarding the second paragraph on page 10-1, it appears that the citation for Specification Section 01350 (Safety, Health, and Emergency Response) is incorrect and should be revised to 01351.
- c) Appendix B (Specifications), Section 01110 (Summary of Work) and Section 01351 (Safety, Health, and Emergency Response), both indicate that the "Contractor" shall prepare and submit a Site HASP. It is presumed that the "Contractor" referenced in these Sections is not Amec, and the Amec HASP referenced in comment 7.a above is not the same as the "Contractor" HASP(s) referenced here. How many individual "Contractor" HASPs are anticipated to be generated?
- d) The RAWP states that dust monitoring will be performed in the work zone using hand held real-time continuous air monitoring instruments and at the work area perimeter using monitoring instruments to measure aerosol dust and automatically store data for subsequent retrieval.
- i) What are the proposed plans for measuring and monitoring dust concentrations at the property line?
- ii) Are dust concentrations proposed to be measured in the breathing zone, and how is the breathing zone being defined?
- iii) What are the maximum detected concentrations of the contaminants of concern that could be present in dust generated during work activities at the site?
- iv) What concentration of each contaminant measured in respirable dust could present a risk to on-site workers and off-site student or residential populations?

- v) What were the sources of these risk based concentrations (i.e. published regulatory standards, etc.) and/or how were these concentrations derived/calculated? Please provide references and documentation.
 - vi) Since the air monitoring instruments measure particulate dust concentrations, but not specific contaminants in dust, how have the individual contaminant risk concentrations referenced in item iv above, been translated into conservative risk-based protective dust concentrations for the work zone, work perimeter and property line areas?
 - vii) What are the proposed action levels for instrument measured dust concentrations that will trigger required responses in the work zone, work perimeter and property line areas, and what are the proposed action level threshold duration periods at each zone before responses are implemented (i.e. immediate response upon action level exceedance, response after sustained action level exceedance for minimum of 5 minutes, response after X number of short duration exceedances, etc.)?
 - viii) What are the proposed required responses in the work zone, work perimeter and property line areas, in the event of an action level exceedance (i.e. temporary work stoppage, implementation of dust suppression methods, etc.)?
- e) Will the dust monitoring instruments be equipped with an alarm to alert on-site workers if an exceedance of an action level is measured?
 - f) Is any real-time volatile organic compound (VOC) monitoring or screening proposed during work activities? If so, please provide details such as proposed monitoring devices, monitoring locations, proposed action levels that trigger required responses, and proposed responses.
 - g) Since elevated levels of methane gas have been documented in subsurface fill at certain locations on the Gorham site, are there any plans to field screen or monitor for methane or combustible gas with a combustible gas meter (CGI) during planned intrusive work in areas where fill is either known to exist or may be present in the subsurface?
- 8) Regarding Appendix B (Specifications), Section 01340 (Submittal Schedule Attachment) - Why do the references to Section 02101 (Clearing and Grubbing) and Section 02370 (Erosion and Sedimentation Control) indicate (No submittals required), when they are both cited as references in other Sections of the RAWP?
- 9) Regarding Appendix B (Specifications), Section 01510 (Temporary Facilities and Controls):
- a) Part 1, item 101.A.2.e - Soil Stockpile Areas, indicates (*see Section 02300, "earthwork", for information*). Section 02300 (Earthwork) 3.07.B.2.a, indicates that "*Stockpiles shall be constructed in accordance with Section 02110 - Waste Excavation, Removal, and Handling.*" As previously indicated, Section 02110 is not included in the RAWP.

- b) Regarding Part 1, item 101.A.2.f – Decontamination pad – Please provide additional details about the decontamination pad, including its planned dimensions, construction details (i.e. liner specifications, secondary containment and/or runoff controls, etc.), and proposed location.

10) Regarding Appendix B (Specifications), Section 02300 (Earthwork):

- a) In Part 1.02 (Related Work Specified Elsewhere), 7 of the 12 listed Sections do not appear to be included anywhere in Appendix B. Several of these Sections are specifically referenced numerous times throughout the main body of the RAWP and also in many of the individual Specification Sections of Appendix B. Please clarify whether these Sections were omitted from the submittal intentionally, and if so, where the referenced details are discussed in the RAWP, otherwise, please provide these Sections.
- b) In Part 3.07 (Handling and Temporary On-Site Storage of Excavated Materials), reference is made to the “*designated Waste Staging and Storage Area as shown on the Drawings.*” Please provide additional details about the designated Waste Staging and Storage Area including its proposed location (text description and site figure), construction details, a list of what items may be stored there, material management specifications (i.e. plans for material segregation and tracking, proposed usage of polyethylene liners and covers, storage containers [i.e. rolloffs, drums, and/or live loading of trucks], applicable dust, erosion and sedimentation controls, etc.), and final area decommissioning plans.
- c) Part 3.07 (Handling and Temporary On-Site Storage of Excavated Materials), and Part 3.08 (Sampling, Analysis, and Characterization), both reference Section 02110 (Waste Excavation, Removal, and Handling), but as noted in comments 6 and 10.a above, this important Section does not appear to be included in Appendix B.

11) In accordance with Rule 11.09 (Closure and Post Closure) of the Remediation Regulations, compliance with the Remedial Action Approval shall be documented in a Closure Report submitted to the Department for review and approval. The RAWP should include a statement indicating that a Remedial Action Closure Report will be prepared and submitted to the Department documenting the work performed and including 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 material, 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.
- 12) The Department has not completed its review of the draft ELUR and will be supplying comments on that document separately. Please resubmit a track changes version of the proposed ELUR in electronic format and showing all text changes (additions and deletions) that have been made from the Department's boilerplate ELUR, for the purpose of facilitating its review by the Department's Office of Legal Services.
- 13) Regarding the draft SMP:
- a) The Department acknowledges that the draft SMP is intended to be a component of the final ELUR for Phase I of the Park Parcel, and is intended to address the handling, stockpiling, and tracking of impacted soils should they require management as part of potential future activities following post remediation closure of Phase I of the Park Parcel. Therefore, the comments that follow are made with the understanding that the intent of the SMP is limited to post remedial disturbances of regulated soil or the engineered control caps.
 - b) Page A-1, fifth paragraph - Please add dioxin to the list of potential contaminants that exceeded the applicable direct exposure criteria at several locations.
 - c) Page A-1, last paragraph - Please add maintenance of the engineered control cap to the list of anticipated site activities that may require soil management.
 - d) Regarding Section 2 (Responsibilities), the third paragraph on page A-2 - It appears that the citation should be for Paragraph 5.2.2, not Paragraph 7.2.2.
 - e) Page A-2, Section 5.1 (Stockpile Criteria) – Please clarify that regulated soils shall be placed upon polyethylene sheeting and covered with polyethylene sheeting.
 - f) Regarding Paragraphs 5.2 (Air Monitoring), 5.2.1 (Breathing-Zone Monitoring), 5.2.2 (Perimeter Monitoring), and 5.2.3 (Construction Control Measures) - The final action levels and response action protocols worked out in comment 7.d above should also be utilized in the post closure SMP.
 - g) Regarding Paragraph 5.2.1 (Breathing-Zone Monitoring), the fourth paragraph on page A-3 - It appears that the citation should be for Paragraph 5.2.3, not Paragraph 7.2.3.
 - h) Regarding Section 5.2.2 (Perimeter Monitoring) – Ambient air action levels at the property line should be based upon US Environmental Protection Agency (EPA) ambient air levels.
 - i) Please add the following language to the post closure SMP:

- i) This SMP serves to supplement, and will be initiated by, the RIDEM notification requirement established by the Environmental Land Use Restriction (ELUR) for the property.
- ii) As part of the RIDEM notification, the site owner will provide a brief written description of the anticipated site activity involving soil excavation. The description will include an estimate of the volume of soil to be excavated, the duration of the construction project, and the proposed location of the temporary storage of the soil.
- iii) During site work, the appropriate precautions will be taken to restrict unauthorized access to the property.
- iv) The excavated soils will either be re-entered to their original location (returned to the excavation) the same day of the removal and will be placed below the applicable engineered control cap, or will be properly stored in a secured location of the site.
- v) To the extent it is necessary during excavation activities, the clean fill material of the engineered cap will be segregated from the regulated soil beneath the cap and stored separately and securely on and under polyethylene sheeting. Best management practices will be utilized to minimize and control generation of dust during excavation, movement or storage of regulated soils. Any regulated soil being re-entered will be placed below a RIDEM approved engineered control cap.
- vi) If the soil can not be returned to the excavation the same day, then the segregated soils will either be stockpiled separately on polyethylene sheeting, or stored separately in roll-off type containers. In either case, the segregated material in storage will be covered with secured polyethylene sheeting at the end of each workday. Stockpiled materials will be maintained with appropriate controls and best management practices to limit the loss of the cover and protect against stormwater or wind erosion.
- vii) Any portion of the geosynthetic liner (geomembrane, geocomposite, geotextile, etc.) that is damaged during excavation, maintenance and/or related activities will either be repaired or replaced in a timely manner with a section of new geosynthetic liner in accordance with the approved engineered control specifications.
- viii) If the regulated soil can not be returned to the original location, then a qualified environmental professional will collect samples of the excavated soils (either during excavation or from stockpiles) for laboratory testing. In the event that regulated soils are generated for which the only effective method of management is off-site disposal, then the testing program will also address the data requirements of the anticipated disposal facility.
- ix) In the event that certain soils on regulated portions of the site were not previously characterized, these soils are presumed to be regulated until such time that it is demonstrated to the Department, through sampling and laboratory analysis that they are not regulated.

- x) Excavated soils will be staged and temporarily stored in a designated area of the property. 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 60 days without prior Department approval.
- xi) 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 utilized.
- xii) Soils excavated from the site may not be re-used as fill on residential property.
- xiii) Site soils, which are to be disposed of off-site, must be done so at a licensed facility in accordance with all local, state, and federal laws. Copies of the material shipping records associated with the disposal of the material shall be maintained by the site owner and included in the annual inspection report for the site.
- xiv) Best soil management practices should be employed at all times and regulated soils should be segregated into separate piles (or cells or containers) as appropriate based upon the results of analytical testing, when multiple reuse options are planned (i.e. reuse on-site or disposal at a Department approved licensed facility).
- xv) All non-disposable equipment used during the soil disturbance activities will be properly decontaminated as appropriate prior to removal from the site. All disposable equipment used during the soil disturbance activities will be properly containerized and disposed of following completion of the work. All vehicles utilized during the work shall be properly decontaminated as appropriate prior to leaving the site.
- xvi) At the completion of site work, all exposed soils are required to be recapped with Department approved engineered controls consistent or better than the site surface conditions prior to the work that took place. These measures must also be consistent with the Department approved ELUR recorded on the property.
- xvii) In accordance with Section A iii of the ELUR (**this reference is based upon the Department boilerplate ELUR language and may need to be revised depending upon the language of the final Department approved version of the ELUR**), no soil at the property is to be disturbed in any manner without prior written permission of the Department's Office of Waste Management, except for minor inspections, maintenance, and landscaping activities that do not disturb the contaminated soil at the Site. As part of the notification process, the site owner shall provide a brief written description of the anticipated site activity involving soil excavation. The notification should be submitted to the Department no later than 60 days prior to the proposed initiation of the start of site activities. The description shall include an estimate of the volume of soil to be excavated, a list of the known and anticipated contaminants of concern, a site figure clearly identifying the proposed areas to be excavated/disturbed, the duration of the project and the proposed disposal location of the soil.

xviii) Following written Notification, the Department will determine the post closure reporting requirements. Significant disturbances of regulated soil will require submission of a Closure Report for Department review and approval documenting that the activities were performed in accordance with this SMP and the Department approved ELUR. Minor disturbances of regulated soil may be documented through the annual certification submitted in accordance with Section H (Inspection & Non-Compliance) of the Department approved ELUR. The Department will also make a determination regarding the necessity of performing Public Notice to abutting property owners/tenants concerning the proposed activities. Work associated with the Notification will not commence until written Department approval has been issued. Once Department approval has been issued, the Department will be notified a minimum of two (2) days prior to the start of activities at the site. Shall any significant alterations to the Department approved plan be necessary, a written description of the proposed deviation, will be submitted to the Department for review and approval prior to initiating such changes.

14) In addition to the post closure SMP to be recorded with the ELUR for Phase I of the Park Parcel, the RAWP should also contain either a standalone RAWP specific SMP, included as an attachment or Appendix, or alternatively a dedicated section specifically outlining the comprehensive procedures and protocols that must be followed when managing regulated soils on the site. This RAWP specific SMP should include at a minimum information about how all regulated soils will be managed on-site, where contaminated soil may be stockpiled, procedures governing reuse and off-site disposal of soil, the construction details of the soil stockpile management area, how the regulated and non-regulated soil in the stockpile area will be stored, segregated and tracked, how dust and odors will be monitored and controlled, etc. Many of the additional language elements requested in the post closure SMP (see comment 13 above) may also be applicable and should be included as appropriate.

15) Regarding previously listed document 4, the ELJRI's Comments and Questions on the RAWP:

- a) It is the Department's understanding that the EJLRI's comments will be addressed along with the Department's comments in Textron and Amec's written response to this comment letter.
- b) It is also the Department's understanding, based upon a conversation with a representative of Textron, that Textron is willing to produce weekly status update reports documenting the real-time dust monitoring and other air monitoring and/or sampling events that are conducted during remedial work activities at the site, and which will be submitted electronically in a format (i.e. PDF) that is suitable for posting on the Gorham web page, located on the Department's web site.

16) The following comments are specific to Textron's responses to the July 12, 2011 Phase I Park Parcel Public Meeting:

- a) Regarding Comment 9, Textron stated that *"Depending on additional inquiries on the proposed approach for capping Phase I of Parcel D, Textron is receptive to an additional public information session focusing on the construction methods and anticipated controls to be implemented while the work is occurring."* Has Textron received any additional inquiries on Phase I of the Park Parcel or requests for a public Information Session or Meeting?
- b) Regarding Comments 13 and 34 concerning signage at the site, please provide an update regarding Textron's discussions with the City of Providence about installation and maintenance of informational signs at the site.
- c) Regarding Comment 16, questioning the life expectancy of the geotextile material liner, Textron noted that *"with respect to life expectancy of the liner material, according to the Geosynthetic Research Institute, an HPDE liner proposed to be covered with soil is expected to last well over 100 years. Product information will be included in the specifications section of the Remedial Action Work Plan."*

According to Appendix B (Specifications), Section 02072 (Geomembrane), the chosen material has a Manufacturer warranty of 20 years. Please provide documentation and an explanation supporting the proposition that if the selected geomembrane is installed correctly as proposed it will be expected to last over 100 years.

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.

Sincerely,



Joseph T. Martella II
Senior Engineer
Rhode Island DEM
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
Barbara Morin, RIDEM/OAR
Ron Gagnon, RIDEM/OC&TA
Chris Walusiak, RIDEM/OC&TA

Ann Battersby, 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
Robert E. Azar, Providence Department of Planning and Development
Robert F. McMahon, Providence Parks Department
David Heislein, Amec
Amelia Rose, EJLRI
Knight Memorial Library – Project Repository