



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

October 17, 2012

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 – Parcel A Retail Complex
333 Adelaide Ave., Providence, RI
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;
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*, 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 Stakeholders 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. Retail Complex Soil Investigation, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated May 28, 2008;
59. Retail Complex Groundwater Investigation, Former Gorham Manufacturing Facility, Retail Complex, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated May 28, 2008;
60. Adelaide Avenue Soil Vapor and Groundwater Investigation, Former Gorham Manufacturing Facility, Retail Complex, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated June 5, 2008;
61. Status Report: May 2008 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw Environmental, Inc. (Shaw), and dated June 5, 2008;
62. Status Report: August 2008 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated September 11, 2008;
63. Mashapaug Cove Groundwater Investigation, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated December 12, 2008;
64. Status Report: November 2008 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated December 15, 2008;

65. Status Report: February 2009 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated April 7, 2009;
66. Status Report: August and September 2009 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated October 12, 2009;
67. Groundwater Investigation Work Plan, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island, prepared by MACTEC, and dated October 14, 2009;
68. Status Report: February 2010 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated March 25, 2010;
69. 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;
70. Status Report: August 2010 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated September 20, 2010;
71. Status Report: February 2011 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated March 25, 2011;
72. Status Report: August 2011 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated September 19, 2011;
73. Status Report: February 2012 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated March 20, 2012;
74. Update - Former Gorham Manufacturing Facility Site, Proposed Groundwater Remediation System, prepared by Textron, dated August 2012, and received August 13, 2012;
75. Email Re: Comments/Questions on Groundwater Proposed Remedy, submitted by the Environmental Justice League of Rhode Island (EJLRI), and dated September 12, 2012;
76. Responses to questions – Proposed groundwater remediation system, Former Gorham Manufacturing facility, Providence, RI, prepared by Textron, and dated September 14, 2012; and

77. Status Report: August 2012 Activities, Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, RI, Site Remediation Case No. 97-030, prepared by Shaw, and dated September 24, 2012.

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 Notice on August 13, 2012, included an October 1, 2012, meeting with the Gorham Stakeholders Group, and the period closed on October 2, 2012. Comments were received and responded to as documented in the previously referenced items 75 and 76.

The preferred remedial alternative, as stated in item 74, involves **installation of a groundwater remediation system designed to remove and treat volatile organic compound (VOC) impacted groundwater and to contain impacted groundwater from moving off the Site. The proposed system will consist of three groundwater extraction wells pumping groundwater to a central groundwater treatment system located in a cargo container placed on a concrete pad behind the Parcel A Retail building. The system will include a filtering unit, an air stripper (to remove VOCs from the groundwater), an air treatment vessel (to remove VOCs from the air flowing out of the air stripper before it is discharged to ambient air), and a final filtering unit. Once treated, water will be discharged to a storm drain that connects to the large basin behind the Parcel A retail building under a RIDEM Rhode Island Pollution Discharge Elimination System (RIPDES) permit. The treatment system will also be equipped with “fail-safe” controls that will automatically shut the system down in the event of system malfunction.**

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 shall be submitted for Department review and approval within 90 days (**January 14, 2013**). 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 an Order of Approval (Order), 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, Order, Environmental Land Usage Restriction (ELUR) and/or Soil Management Plan (SMP) for the Property.

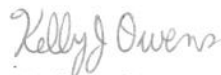
If you have any questions regarding this letter, please contact me by telephone at (401) 222-2797 extension 7109 or by e-mail at joseph.martella@dem.ri.gov.

Sincerely,



Joseph T. Martella II
Senior Engineer
RIDEM/Office of Waste Management

Authorized by,



Kelly J. Owens
Supervising Engineer
RIDEM/Office of Waste Management

cc: Terrence D. Gray, P.E., Assistant Director, RIDEM/AW&C
Leo Hellested, P.E., RIDEM/OWM
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Barbara Morin, RIDEM/OAR
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
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Knight Memorial Library – Project Repository