

TEXTRON

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November 16, 2011

Mr. Joseph T. Martella II, Senior Engineer
RIDEM Office of Waste Management
Site Remediation Program
235 Promenade Street
Providence, RI 02908

RE: Former Gorham Manufacturing Site
Response to July 12, 2011 Public Meeting Comments
Parcel D – Phase I Remedial Action

Dear Mr. Martella:

Consistent with your August 17, 2011 letter, enclosed please find responses to comments received following the July 12, 2011 public meeting regarding the proposed Parcel D Phase I Remedial Action Plan. Pending the Department's review of the information submitted within, Textron looks forward to receiving a *Remedial Decision Letter* and we are prepared to submit a Remedial Action Work Plan shortly thereafter.

Please feel free to contact me with any questions regarding this submittal.

Sincerely,

Textron Inc.



Gregory L. Simpson
Sr. Project Manager – Site Remediation

cc: T. Deller – City of Providence
A. Rose – Environmental Justice League of RI
D. Heislein – AMEC E&I, Inc.

Response to Comments
July 12, 2011 Phase I Park Parcel Public Meeting
Former Gorham Manufacturing Facility
333 Adelaide Ave., Providence, RI

The public meeting was held at the Renaissance Church located at 77 Reservoir Avenue, Providence, RI on July 12, 2011. This meeting summarized the Remediation Program Letter issued by the Rhode Island Department of Environmental Management (RIDEM) regarding the Phase I Park Parcel (Parcel D) response action proposed for the former Gorham Manufacturing Site. Public comments were submitted to RIDEM during the 30-day comment period (extended from the original 14-day comment period). Following RIDEM review, these were forwarded to Textron on August 17, 2011. The following includes the individual comments and a response to each comment.

Emailed Comments:

Comment 1. Once the land is capped, will it be safe to for students/staff to work the soil? When some attempted to plant flowers/bushes in front of the building last summer/fall, they were told (by whom, I'm not sure...I was not present) to stop because the soil was not safe.

***Response:** Once the Park Parcel is remediated, it will be safe for the public to use the site for passive recreation (e.g., walking trails). The soil cover over the Phase I Park Parcel (Parcel D) will be constructed with marker material, two feet of clean soil and vegetation. This cover must be maintained to eliminate the potential exposure to the contaminated soil beneath the liner and soil and should not be excavated. Therefore, digging of the soil cover is not recommended and will be stated as such in the Environmental Land Use Restrictions (ELUR) filed in the Registry of Deeds and the Soil Management Plan (SMP).*

Comment 2. I've worked at Alvarez since it opened and was never told about the status of the building. Maybe the communication went to the school department (797 Westminster St.) and was not forwarded to the school.

***Response:** The City of Providence has been responsible for remediation activities and controls associated with Alvarez High School. Textron has communicated in the past with the high school regarding ongoing activities on the adjacent parcels. Textron and the City are in the process of preparing an information summary sheet for distribution to the teachers and students to ensure that the Alvarez community is aware of the ongoing activities.*

Comment 3. Does the Parcel Phase I Cleanup Plan include the high pile of sand next to the School?

***Response:** No the soil pile is located on Parcel C and will not be addressed as part of the Phase I Park Parcel remediation. The City of Providence has submitted a Remedial Action Work Plan (RAWP) to RIDEM for Parcel C that includes plans for the soil pile to be spread out and incorporated underneath additional parking areas and fields for Alvarez High School.*

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Comment 4. During the cleanup, will water be used to keep the dust from dispersing?

Response: Yes, water will be used to for dust suppression during the grading and capping at Parcel D. Air monitoring will also be conducted along the perimeter of the construction work to monitor the air quality.

Comment 5. There's been some erosion at the front of the school (in front of door located to the right side of the main entrance). This occurred during last winter and was not regraded.

Response: Maintenance of the school grounds is the responsibility of the City of Providence School Department.

Comment 6. Will the teachers and students at Alvarez be allowed to use the completed path? Several of our science teachers would probably be eager to incorporate study of the area into environmental studies.

Response: Once all three of the Parcel D remediation phases are completed (currently scheduled for 2014) and the City of Providence has constructed the necessary amenities for the walking path, the area will be open to the public for passive recreational use. At that time, students and teachers would have access to the area.

Comment 7. Would it be possible for an Alvarez student to use the Parcel Phase I Cleanup as the focus of his/her senior project? I think that interviews with those in charge of the project would be part of the research.

Response: Textron, its engineers and contractors will be available for interviews with teachers and students for school projects and research of existing reports. We welcome the involvement of students in our projects.

Environmental Justice League of Rhode Island (EJLRI) Comments

Comment 8. In the past, many lab tests that have run samples collected at the site and for the pond cove on behalf of Textron have resulted in "ND" or "non-detect". GEI pointed out that some of the reporting limits in the past have been above state cleanup levels. We want to emphasize GEI's recommendation that all reporting limits for laboratory confirmation samples will be below that state cleanup levels.

Response: This was identified during the review of the Supplemental Site Investigation Report in 2006 regarding old historic data and has already been addressed with RIDEM. The current and applicable reporting limits will be incorporated into the Remedial Action Work Plan (RAWP).

Comment 9. We would also like to emphasize GEI's comment regarding limiting potential exposure to occupants of the high school during any excavation or removal actions that will take place on Phase I while school is in session--possibly by scheduling these remedial actions on the weekends, after school hours, or during Spring vacation. We also recommend that RIDEM along with Textron and the City hold an informational meeting with students and staff before any work begins on Phase I, which EJLRI would be happy to help arrange if needed.

Response: The nature of the work and the controls available will allow activities to safely move forward while school is in session. Please note that the construction documents for the capping of Parcel D will include requirements for dust control. This will consist of the use of water to control dust and dust monitoring around the perimeter of the construction site to monitor the dust levels and air quality. Textron will continue to coordinate with RIDEM, the City of Providence and the high school prior to the start of construction and will maintain fencing and clearly mark limits of work for everyone's safety. Depending on additional inquiries on the proposed approach for capping Phase I of Parcel D, Textron is receptive to an additional public

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information session focusing on the construction methods and anticipated controls to be implemented while the work is occurring.

Comment 10. For parts of Phase I where there will be no geotextile or other barrier to demarcate contaminated soil from the clean soil cap, we want to emphasize GEI's recommendation to place a "marker fabric" below the soil cap. This is a standard practice for many states and is legally required in New York and New Jersey. It is also inexpensive and makes logical sense to have a marker in case there is any disturbance of the cap and people using the site do not think to look at the property's deed or know the history of the site.

Response: *A marker fabric will be included under the soil cover outside the area where geotextile fabric is being used.*

Comment 11. We would also like to emphasize and elaborate on comments made by Bob McMahon from the City of Providence Parks Department at the public meeting in July. Textron should be financially responsible for any infrastructure (such as wooden planks for a boardwalk/walking trail) and stormwater controls that are needed to prevent the clean soil cap from being eroded by wind, water, or foot traffic from future users of the park/walking trails. Mr. McMahon mentioned the need for Textron to outline their plan to control stormwater from the parking lots that might run onto Parcel D and we would also add the need to control stormwater from Parcel C through the use of hay bales or other methods. These were not mentioned in Textron's plan.

Response: *Generally speaking, Textron's involvement in remediation and restoration of the Parcel D will consist of soil remediation via capping activities, sediment remediation within Mashapaug Cove and restoration of upland areas disturbed by the activities in the form of re-vegetation. Textron, while obligated to remediate Parcel D to an Industrial/Commercial level, has volunteered to remediate Parcel D to a level that will allow for future recreational activities to occur. The City of Providence will be responsible for completing the necessary park infrastructure improvements once Textron's activities are completed. The site security fence will remain in place until these infrastructure improvements are completed.*

Stormwater runoff from the high school property discharges into stormwater catch basins located throughout the parking lot and is routed to the detention basin behind the retail building on Parcel A for infiltration and/or discharge into Mashapaug Cove. The design and construction of the Phase I Park Parcel soil cover will incorporate provisions to protect from surface water runoff adversely impacting the soil cover material. The design details for stormwater management will be included in the construction drawings and specifications for review by RIDEM prior to construction.

Comment 12. We would like further clarification on how the fences will be maintained on the site while the remediation continues. On page 5 of Textron's plan, MACTEC writes that the existing chain link fence will be relocated along the boundary between Parcels C and D, and describes some other changes as well. In the public meeting Textron and MACTEC emphasized that they will maintain fences and prevent any public access to Parcel D until the full remediation is complete. We would like further clarification about the fences, including a map showing where the fences will be located as the remedy is implemented. This could be accomplished at one of the quarterly meetings of all stakeholders held at the Providence Planning Department.

Response: *The RAWP figures will include the approximate location of the fence as part of the perimeter construction fence for safety. Access to Parcel D will be restricted with a fence until the Parcel has been fully remediated (at the conclusion of Phase III, scheduled for 2014).*

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Comment 13. Textron also should indicate in their Remedial Action Work Plan that they will place and maintain signs along the fences in English and Spanish as long as the cleanup continues, including a name of a contact person and phone number where individuals can call with any questions.

***Response:** Textron will work with the City of Providence to install and maintain signs along the fences in English and Spanish during the remediation. The signs will include a site contact phone number and information.*

Comment 14. Our final comment is the one we believe to be the most important to ensure the safety and health of neighborhood residents and students/staff in the school. We strongly urge RIDEM to require Textron to assume financial responsibility for the long-term maintenance of the proposed cap. Given the City's financial constraints and past performance on maintenance duties at the site, we are concerned that future maintenance needs will go unresolved without any financial guarantee that the responsible party will respond to and fix problems that may develop. Our group was interested to learn that many of our neighboring states require financial assurances through regulation for the maintenance of cap remedies like the one proposed by Textron for Parcel D. Given the high profile of this site, and the use of the site for a school, now a church as well, and a future park---this heightens the probability of people coming into contact with contaminants at the site and the need for long-term maintenance becomes even more significant.

***Response:** Textron is in discussions with the City of Providence regarding the long-term maintenance of the Parcel D cap.*

Brown University Comments

Comment 15. First, Given that a section of the site will serve as a series of walking trails, attention must be paid to properly renovating the site with infrastructure necessary to prevent erosion to the buffer/cap between the contaminated soil and the surface. The contract should be explicit that Textron is financially responsible for (a) the construction of this infrastructure (e.g., wooden planks or some other material); and (b) for ongoing maintenance to ensure that this infrastructure is in proper working order. In addition, Textron should commit to financially providing upkeep to maintain the buffer zone/soil cap free of erosion.

***Response:** See responses to comments 11 and 14 above.*

Comment 16. Second, the contract should be explicit that Textron is financially responsible for the upkeep of the entire cap indefinitely. Given that the geotextile material is only designed to last without decomposition for approximately thirty years, the financial burden of replacing the cap at that time should not be financial responsibility of the public, including the City of Providence. Textron should also take responsibility for ongoing maintenance costs to the cap.

***Response:** See responses to comments 11 and 14 above. Also note 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.*

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Comment 17. Third, the contract should be explicit in how Textron will continue to engage with the public through communications and public meetings in the future. Textron should consult on a regular basis, at least twice a year, with representatives of community organizations that have been involved in the Gorham clean-up. And the definition of the public with which Textron communicates should be broadened to include residents within a mile radius of the site. In addition, all announcements should be made in a major Spanish-language newspaper.

Response: *Relative to Gorham site cleanup activities Textron will continue to participate in quarterly meetings attended by representatives of: the City of Providence, RIDEM and the Environmental Justice League of RI. In conjunction with the City, Textron has drafted an informational notice to be distributed to all students and staff of Alvarez high school. As discussed at the July 12th meeting, the distribution list for future project-related materials will be expanded from the DEM-required abutters to approximately 200 addresses in the area and those providing contact information at the public meetings. Textron will add additional names to the distribution list as received.*

GEI Comments

Western Shoreline Soil Excavation.

Comment 18. Residential direct exposure criteria apply to depths extending to the vadose zone. Since soil samples were collected primarily within the upper one foot, it is unclear how the soils outside the cap have demonstrated compliance with the residential direct exposure criteria.

Response: *The shoreline along the entire western side of Parcel D consists of a steep drop down to the pond edge. There is no historic information or current visual evidence that would suggest that the western shoreline was subject to industrial uses. There are structures present along the western peninsula and historic documents which indicate that this area was used for water extraction for the facility fire suppression systems, but no other evidence exists that industrial activities occurred in this area (hence the wooded nature of the area). The nature and extent of fill material found on Parcel D was delineated during several site investigations, combined with the soil investigation results to determine the extent of the soil cover. Samples were collected in this area from 0-12 inches to provide data suitable for risk assessment purposes, which would determine if the Park Parcel Cap would need to be extended. Thus, the upper 12-inches of soil was determined to pose the greatest risk. Soils outside the proposed cap do not present a risk as confirmed by analytical testing.*

Comment 19. The Plan should specify that all the reporting limits for laboratory confirmation samples, especially for dioxin, will be below the state cleanup levels.

Response: *The RAWP will include language specifying laboratory confirmation soil sample method detection limits that will be equal to or below the RI Residential Direct Exposure Criteria.*

Comment 20. The Plan should detail the actions to be taken by Textron for additional excavation should the confirmation samples exceed Residential direct exposure criteria.

Response: *The RAWP will include the actions to be taken by Textron for additional excavation should the confirmation samples exceed RI Residential Direct Exposure Criteria.*

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Comment 21. Sidewall confirmation samples are not specified in the Plan. These confirmation samples would document horizontal delineation of the impacted soil. The Plan should specify sidewall samples or provide a rationale for why these samples are not necessary.

Response: *The areas that the comment refers to are associated with background exceedances of the residential direct contact standard and not indicative of a release. These areas are located outside of the footprint of the fill material. Regardless, sidewall samples will be collected from excavation areas located outside of the proposed cap footprint.*

Comment 22. The Plan should discuss efforts, possibly through scheduling, to limit potential exposure to the occupants of the high school.

Response: *See the response to Comment No. 9.*

Former Slag Area Removal and Testing

Comment 23. The Plan specifies up to ten test pits to be installed along the perimeter of the former slag pile. However, RIDEM has previously requested that test pits be collected in all areas where the lead concentrations exceed the Industrial/Commercial direct exposure standards. During the public meeting, Textron indicated that it would perform ten test pits under the supervision of RIDEM. The Plan should be revised to define these actions.

Response: *Ten test pits will be excavated along the boundary of the 2006 slag pile removal activities to determine if additional slag material is present. Samples will be collected from each test pit and analyzed for total lead and SPLP metals. The resulting analytical information will be used to identify potential soil management options if future intrusive activities of the capped area were to occur (not anticipated at this time). The restriction from digging into the soil cover will be included in the Environmental Land Use Restrictions (ELUR) appended to the RAWP. The proposed test pit locations will be shown on the site figure within the RAWP. The final test pit locations will be confirmed in the field with RIDEM prior to execution of the work.*

Comment 24. Textron has previously stated that confirmation samples will be collected and analyzed for total and synthetic precipitate leaching procedure lead. Textron indicated during the public meeting that both types of lead analysis would be performed. The Plan should specify the confirmation sampling scheme and confirmation analytical parameters.

Response: *Bottom confirmation soil sampling (total lead and SPLP metals) will be conducted at the two areas targeted for excavation and ten test pits at the former slag pile area. This will be clarified within the RAWP.*

Comment 25. There is no discussion of compaction requirements. Compaction requirements, if necessary to stabilize the cap, should be discussed in the Plan.

Response: *Compaction requirements will be included in the specifications section of the contract documents for the contractor.*

Comment 26. A marker fabric below the cap should be considered to indicate the vertical location of the cap. This would provide an “in the field” indicator to protect human health and assist in the implementation of the soil management plan. The installation of marker fabric or demarcation layers is included as part of a presumptive remedy or required by several neighboring state regulatory agencies, including New York and New Jersey, and is strongly recommended for this project.

Response: *See response to Comment No. 10.*

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Wetland Buffer Cap

Comment 27. The wetland buffer cap will require state and local wetland approval and permitting. The Plan should specify these actions and anticipated timetables to meet these permitting requirements. The planting activities are proposed for spring of 2012. It is critical that these permitting requirements are satisfied to meet these deadlines.

***Response:** This remedial action is exempt from state wetland permitting as it is being conducted under the Remediation Regulations; however, Textron and RIDEM held a meeting on July 12, 2011 to review the proposed construction activities in regards to wetland regulations and conducted a site visit on August 25, 2011 to review the wetland flag locations, proposed limits of work, erosion control along the shoreline and cap construction details. Results of these meetings will be incorporated into the RAWP.*

Comment 28. The Plan does not specify where the removed soil at the toe of the buffer will be placed. The Plan should provide these details.

***Response:** The RAWP will indicate that the soil removed from the toe of the wetland buffer will be placed under the cap during the grading of the existing site soil.*

Former Slag Area Cap

Comment 29. The Plan should provide specifications for infiltration rates for the geotextile liner.

***Response:** The specifications section of the contract documents will include specifications for the geomembrane liner.*

Comment 30. There is no discussion of compaction requirements. Compaction requirements, if necessary to stabilize the cap, should be discussed in the Plan.

***Response:** The existing contaminated soil will be graded, compacted, covered with either geomembrane liner or marker material and capped with 2-feet of soil. The compaction requirements will be indicated in the earthworks section of the specifications for the contract documents.*

Groundwater Monitoring Wells

Comment 31. The Plan indicates that existing monitoring wells will be secured and maintained during the construction of the soil cap. However, the Plan also indicates that the number of existing monitoring wells maintained may be modified pending the design of the groundwater treatment system. Textron should specify the exact number of wells to be maintained prior to implementation of the work.

***Response:** Textron will coordinate with its groundwater remediation subcontractor and specify the existing wells and proposed new wells to be installed and protected during the construction of the Phase I Park Parcel response action.*

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Institutional Controls

Comment 32. The Plan should include a description of who will assume long term monitoring and maintenance of the engineered caps, including but not limited to periodic inspections, tending of any restored vegetation, repair of damage or eroded areas, and annual certification requirements under the land use restriction.

Response: *See response to comment 14. It is anticipated that the activities cited in the comment will be incorporated into an Order of Approval from RIDEM.*

Comment 33. RIDEM should consider specifying long-term financial assurance requirements as part of approval of the institutional controls. The financial assurance is designed to eliminate future financial constraints that would prevent long-term maintenance. Financial assurance requirements are provided in many neighboring state environmental regulations including New York, New Jersey, and Connecticut.

Response: *This is not a requirement within RIDEM Remediation Regulations. See response to Comment 14.*

Hand written comments from members of the community during the public meeting

Comment 34. Place signage on all public access entries giving the history of the site and naming the site as “Contaminated Site” with details on a website to get more information.

Response: *As stated previously, signs will be posted with contact information on the perimeter security fence. Textron will explore the concept of historical/informative signage with City at access points at the appropriate time (completion of Parcel D remediation activities).*

Comment 35. Can you have a representative for the City of Providence present to answer questions specific to the City’s responsibility? That would be helpful.

Response: *The City of Providence is invited to all public meetings. Mr. Thomas Deller from the Providence Planning and Development Department has been in attendance at recent meetings.*

Comment 36. How will you tell residents what’s going on other than Adelaide Ave?

Response: *See response to Comment No. 17.*

Comment 37. Future testing on all past work and present (future) work? Groundwater under school, Stop & Shop work along Parcel C dig up?

Response: *There is a website with extensive site history and data maintained by RIDEM. This can be found at: <http://www.dem.ri.gov/programs/benviron/waste/gorham.htm>. The City of Providence completed groundwater testing on the Alvarez School property at the time the school was being constructed and did not identify any concerns with the groundwater. Semi-annual groundwater sampling of monitoring wells along the property line between the school and the retail parking area has been performed for several years and not identified any concerns. These reports are included in the above website.*

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Comment 38. What knowledge and past exposure to instances like this are you? Do you get more than one test (more than one opinion)?

***Response:** Textron's project consultant, AMEC has extensive experience with similar types of remediation projects. Multiple laboratory tests have been completed and control samples are collected with each sampling event to ensure that the data is accurate. The laboratories that complete the various analyses of the samples collected from the former Gorham sites also provide perform rigorous quality control documentation with the results to ensure reported results are accurate. These data reports are included with sampling reports and available on the website referenced in the response to comment 37.*