Complex Remedia9tion Process Has Simple But Important Goals

Textron’s cleanup has simple but important goals – to prevent exposure of harmful chemicals in groundwater, soil, or sediments to humans, animals, and even plants. While these goals are straightforward, the steps needed to accomplish them require careful thought and implementation.

Groundwater
Affected groundwater is located 30-50 feet beneath the surface of the site with no pathway to drinking water supplies or to ground level. Chemicals in the groundwater – called volatile organic compounds, or VOCs – at high enough concentrations, can volatilize (become gaseous) and potentially move up through the soil. If a structure is located above groundwater with high enough levels of VOCs, the potential exists for the gaseous VOCs to enter the structure and be present in indoor air. Textron wants to reduce the concentrations of those groundwater chemicals to ensure that they cannot pose a risk.

Initially, Textron used chemical oxidation treatments on the groundwater – a process similar to that used to control algae in ponds. Treatments in 2002 and again in 2004 reduced the size of the affected area of groundwater by about 40 percent, as measured near the end of 2005. Textron recognizes that additional effort is necessary to clean up the remaining groundwater chemicals and that the effort will work best to address them. A biological treatment was pilot tested at the site but did not prove as effective as it was hoped to be (see “site Cleanup” story, page two).

Throughout the groundwater remediation process, Textron has submitted progress reports to RIDEM and to the City. These reports include findings from a network of dozens of groundwater monitoring wells that Textron has installed at critical locations throughout the site.

Surface Water
Surface water can also provide a route of exposure that must be considered. The U.S. Environmental Protection Agency (EPA) performed Mashapaug Pond surface water sampling in 2001, and that study identified impacts typical of urban bodies of water that were not associated with the Gorham sites. The EPA sampling identified elevated levels of bacteria and algae in surface water, and samples of fish caught in the Pond contained chemicals at levels above EPA Fish Consumption Limits. As a result of the 2001 sampling data, RIDEM and the Rhode Island Department of Health jointly issued a health advisory regarding the pond in August 2002, and “No Fishing, No Swimming” signs were posted along the Cove at the Gorham sites around the entire Pond. Sampling of surface water within Mashapaug Cove conducted by Textron in 2006 found extremely low levels of chemicals, well below levels that would cause concern.

Textron also looks at whether sediments within the Cove might cause exposure issues. Sampling performed by Textron in 2006 indicated that sediments within the Cove contain VOCs and metals. Textron has been working with RIDEM to determine exactly what type of additional sediment sampling and what subsequent cleanup steps are necessary.

Soils
Soils on portions of the site also needed to be addressed to protect exposure. In conjunction with the planned construction of the Stop & Shop building, Textron in February 2002 remediated some 18,600 tons of soil that had been affected by leaky fuel oil tanks that had been removed earlier. As part of this effort, Textron also removed from the site many pieces of scrap and other metal debris. Textron’s work during this period allowed the redevelopment to go forward and the retail space to be built for the Stop & Shop store and other outlets.

Last summer, Textron removed about 1200 cubic yards of slag materials and miscellaneous scrap metals located near the Cove, disposing of the materials off-site at a licensed recycling facility. The slag had been generated decades earlier as a by-product of Gorham metal-melting operations.

Textron has also proposed that an upland area near the Cove that contains low levels of polycyclic aromatic hydrocarbons (PAHs) would be capped to prevent any exposure pathways to the surface. The US EPA considers this “capping” procedure a proven, and in its words, a “most appropriate” remedy for such sites. RIDEM recently estimated that 193 sites in Rhode Island have had appropriately designed caps installed as a cleanup remedy.

Textron will continue to clean up soil, sediment, and groundwater at the site. The cleanup process that Textron has set in motion has committed to will, in the end, achieve the protective environmental goals that are consistent with intended site uses.

Community Information Session
Wednesday, June 20, 6-8 PM

Feinstein High School
541 Elmwood Ave., Providence

• View a series of displays on the site investigation and cleanup, staffed by Textron personnel or other project team members who will answer your questions, and

• Hear and discuss Textron’s plans for future cleanup activities, including cleanup plans for the site’s Park Parcel.

Textron Welcomes Your Comments, Questions

This document has been prepared by Textron to inform the community about what the company has done, what we are doing today, and what we are planning to do to achieve our commitment to clean up the former Gorham Manufacturing Company property consistent with its intended uses. We also want our neighbors to know that we are committed to being responsive to community concerns about the site cleanup.

We recognize the need to keep the community informed, and we will continue to update the public about what we are achieving. We also hope to encourage two-way communication, so if you have questions or comments about Textron’s role in the Gorham cleanup, we encourage you to contact:

Gregory L. Simpson
Textron’s Site Remediation Project Manager
Textron
40 Westminster St., Providence, RI 02903
telephone: (401) 272-2875, or email at gsimpson@textron.com.

Should you desire additional information on the Gorham site cleanup or redevelopment activities, you may contact:

Joseph T. Martello II
Senior Engineer, Rhode Island Department of Environmental Management (RIDEM)
235 Promenade St., Providence, RI 02908
telephone, 401-222-2975, ext. 7109, or email at joseph.martello@ridem.ri.gov.

The RIDEM Website for the Gorham site cleanup may be found at:
http://www.dem.ri.gov/programs/ community/waste/gorham.htm

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A Newsletter to Inform the Public About Textron’s Activities

While Textron has in the past several years undertaken several initiatives to clean up the Gorham site, the company is planning a series of significant “next steps” to further address site cleanup activities.

Texttron is committed to a comprehensive cleanup of the site area and wants to ensure that the cleanup will support intended uses of the land. Textron recently announced its willingness to go beyond the company’s original 1994 agreement to clean the site to an industrial level. The Remediation Project Manager Gregory L. Simpson said that Textron has been working closely with Rhode Island Department of Environmental Management (RIDEM) officials in the development of a plan to clean up to a standard safe enough for recreational use the entire area of the site designated years earlier by the City as the “Park Parcel.” That standard is high enough to allow for the creation of a park in the future. The City would be responsible for designing and maintaining any such park in the future.

As planned, Textron cleanup activities in the Park Parcel would occur in three phases with the first phase scheduled to address portions of the parcel this summer in the vicinity of the high school and the proposed YMCA. The remaining area of the Park Parcel behind the former Stop & Shop building is scheduled to be addressed in 2008 as Phase 2, and cleanup activities for Mashapaug Cove, Phase 3, would also be addressed in 2008, according to the schedule (see figure, page two).

Textron will present the details of this proposed Park Parcel cleanup plan at its upcoming Community Information Session to be held on Wednesday evening, June 20, 6-8 PM.
Site Cleanup continued from page one

June 20, at 6-8 PM, at the Feinstein High School on 544 Elmwood Ave., near the former Gorham site.

"In addition to the Park Parcel remediation, Simpson said, "We also realize we need to further clean up the groundwater, and we are aggressively doing so." Textron has already reduced the affected area of groundwater by about 40 percent with chemical oxidation treatments, similar to the treatment used to reduce algae in ponds (see "Remediation Process" story, page four). "While that process gave us some good results and significantly reduced the area of groundwater that was impacted, we still need to reduce the levels of volatile organics that exist in the remaining affected groundwater, Simpson said.

A recent pilot test at the site of a biological groundwater treatment technology did not live up to expectations, Simpson said, and the company has asked four nationally respected engineering companies to make recommendations on what technology or combination of technologies would work best to finish the job. Based on those companies’ responses, Textron hopes to submit a plan to RIDEM this summer for proceeding with groundwater remediation.

Meanwhile, in a proposal approved by the state at the beginning of February 2007, Textron agreed to install several more monitoring wells on both developed and undeveloped areas of the site to track any possible groundwater discharges into the Cove and to measure the levels of groundwater chemicals beneath buildings. Certain chemical compounds in groundwater at high enough levels can vaporize and cause gases to rise through the soil to the surface, possibly causing indoor air quality problems. Low levels of those groundwater chemicals were found in two new Textron-installed monitoring wells in the parking lot in front of the former Stop & Shop building, and Textron has sent a follow-up work plan to RIDEM to drill through the floor of that building to collect and analyze soil gas samples. "This will enable us to determine if there are any soil gas levels that could cause a potential indoor air quality concern," said Simpson.

"Textron has a busy cleanup calendar at the Gorham site," Simpson noted in summary. "We’ve made progress, but we still have more work to do to clean up the site to support its redevelopment."