RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

December 7, 2006

Peter M. Grivers
Project Manager
EA Engineering Science and Technology
2350 Post Road
Warwick, RI 02886

RE: Loam Fill Sample Analytical Data - Proposed Providence Public School Site
(Former) Gorham Textron Dump Property, 333 Adelaide Avenue, Parcel B, Providence
City of Providence Tax Assessor's Office Plat 51, Lot 323, Parcel B
Case No. 2005-029 (Formerly part of Case No. 97-030)

Dear Mr. Grivers:

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). 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.

On November 30, 2006, the Department's Office of Waste Management (OWM) received your electronic mail (e-mail) submittal, on behalf of the City of Providence (the City). Attached to the e-mail was an analytical laboratory data report for a sample collected from a proposed source of "clean fill" loam to be used in the construction of the engineered cap at the subject site. Review of the analytical data sheets indicated that there were no exceedances of the Department's Method 1 Residential Direct Exposure Criteria (RDEC). However, there were detectable concentrations of five (5) polycyclic aromatic hydrocarbons (PAHs) in the sample. PAHs do not occur naturally in the environment and are not typically reported at detectable levels in soil that has not been subject to a release. The Department responded via e-mail on December 4, 2006, indicating that it does not consider material with detectible concentrations of PAHs to be "clean" fill, and therefore considered the subject material to be inappropriate for use at the Providence Gorham School Site. While not specifically addressed in the Remediation Regulations, the position that non-naturally occurring contaminants should not be present in clean fill at detectable concentrations has been a policy followed by the OWM for several years.

On December 5, 2006, you called and left a voice mail message asserting that under the Remediation Regulations, the Department does not have jurisdiction over soil that does not contain exceedances of the RDEC. After consideration of your assertions, the Department acknowledges that it does not have jurisdiction under the Remediation Regulations over soil with

contamination at concentrations below the RDEC. However, while the Department cannot force the City of Providence to select another source of "clean" loam, the Department strongly urges the City to reconsider its choice to use the suspect loam on a school property for the following reasons:

1) While the concentrations of the five (5) PAH constituents detected in the loam are not jurisdictional under the Department's Remediation Regulations, the detection of any contaminants that do not naturally occur in the environment indicates the likelihood that a release has occurred.

2) The detected concentration of benzo(a)pyrene at 0.355 parts per million (ppm) is only slightly under the RDEC of 0.4 ppm. Similarly, the detected concentrations of chrysene at 0.299 ppm (RDEC of 0.4 ppm) and benzo(b)flouranthene at 0.45 ppm (RDEC of 0.9 ppm), are also not significantly below their respective criterion.

3) Benzo(a)pyrene, benzo(b)flouranthene and chrysene are all classified in the US Environmental Protection Agency (USEPA) Integrated Risk Information System (IRIS) as B2 "probable human carcinogens."

4) The limited sampling (one sample) performed to analyze a large quantity of loam, may not have adequately characterized the extent of contamination present. Should future sampling of the cap material indicate any RDEC exceedances in the loam for PAHs, the environmental integrity of the entire cap would be called into question.

5) Any remedy implemented at a contaminated site must be protective of all users of the property. This is particularly important when the intended use of the property involves a sensitive population, such as children in a school. Use of questionable fill material in the cap undermines the public confidence in the ability of the remedy to provide a sufficient level of protection.

6) When a remedy includes capping contamination with clean fill, it does not make sense to include even minimally contaminated material in the cap, when truly clean fill is available simply by selecting an alternative fill source.

Please respond to this letter in writing and indicate the City's intensions regarding the use of the subject loam at the Providence Gorham School Site. Also, please submit appropriate documentation regarding the source and origin of the material.

If you have any questions regarding this letter, 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
Office of Waste Management
Department of Environmental Management

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