



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

Mr. Steven Fischbach
Rhode Island Legal Services, Inc.
56 Pine Street, Suite 400
Providence, RI 02903

June 11, 2010

CERTIFIED MAIL

RE: Lincoln Lace & Braid Mill Site
55-61 Ponagansett Street
Plat 113 / Lots 305 & 429
Providence, Rhode Island
RIDEM Case No. 2009-018

Dear Mr. Fischbach:

The Rhode Island Department of Environmental Management's (the Department) Office of Waste Management (OWM) has received a letter from you to the Department, dated April 16, 2010, and correspondence from EA Engineering, Science, and Technology, Inc. (EA) to the Department, dated March 29, 2010, May 20, 2010, May 24, 2010, June 4, 2010, and June 11, 2010, regarding concerns, comments, and questions about the technical feasibility of the proposed remedy for the above referenced property, in accordance with the Department's Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations). Based on the letters received, the environmental consultant, EA, retained by the owner of the property, and the Department has prepared the attached responses. All questions and concerns are shown below in bold and the responses are in italics. Thank you for presenting your concerns associated with this project. The public comment period shall remain open for one more week from the date of this letter. Any questions, comments, and/or concerns should be submitted to the undersigned no later than **4:00 PM on June 21, 2010**, at which time the public comment period will close and the regulatory process will commence. If you have any questions regarding this letter, please contact me by telephone at (401) 222-2797 ext. 7147 or by e-mail at tim.fleury@dem.ri.gov.

Sincerely,

Timothy M. Fleury
Senior Engineer
Office of Waste Management

Lincoln Lace & Braid - Mill Site
Providence, Rhode Island

Page 1 of 8
June 11, 2010

Cc: Kelly J. Owens, Supervising Engineer, Office of Waste Management
Jeffrey P. Crawford, Principle Environmental Scientist, Office of Waste Management
Elizabeth Stone, Office of the Director
Ronald Gagnon, Office of Customer and Technical Assistance
Martin Wencek, Office of Water Resources – Wetlands
Aaron Mello, Office of Water Resources - RIPDES
Alan Peterson, U.S. Environmental Protection Agency
Robert McMahon, City of Providence
Gilberta Taylor, Hartford Park Residents Association
Lisa Aurecchia, Woonasquatucket River Watershed Council
Frank Postma, EA Engineering, Science, and Technology, Inc.
Ronald Mack, EA Engineering, Science, and Technology, Inc.

Jade Taylor expressed concerns regarding root systems of existing trees harming the cap.

EA response: To address this concern, EA is proposing to keep only three significant trees at the Site. All others will be removed to prevent potential compromise of the geotextile fabric. Furthermore, the engineered cap (geotextile fabric and 1-ft soil cap) will extend to the tree trunks to provide the most protection possible to the public.

Robert McMahon suggested using an air spade to excavate root systems around trees. EA stated that they would have to consider potential impacts to workers and identify these in the SMP.

EA response: As we have decided to install the engineered cap right up to the tree trunks, this air spade excavation would be redundant and a considerable expense to the City. Therefore, air spade excavations will not be conducted.

Robert McMahon stated that quarterly inspections to evaluate the integrity of the cap and condition of trees by the Parks Department will be incorporated into the ELUR.

EA response: Further discussion (between the City and EA) on this point has led to the decision that quarterly inspections are excessive and semiannual inspections will suffice to maintain cap integrity. EA will include this requirement in the draft Environmental Land Usage Restriction (ELUR) that will be submitted with the Revised Remedial Action Work Plan upon receipt of the anticipated Remedial Decision Letter.

Department response: These semi-annual site inspections shall be a separate agreement between the City of Providence and the Hartford Park Residents Association (HPRA). The Department requires annual inspections of the cap and remedy per the ELUR. The inspection evaluation report must summarize the findings of the inspection, note any compliance violations at the property, and outline how deficiencies shall be corrected in a Corrective Action Plan with an associated schedule.

Steven Fischbach requested a copy of the checklist for inspections prior to finalization.

EA response: EA will forward a copy to Steven Fischbach when the document is submitted to RIDEM.

Steven Fischbach requested that the soil be sampled as it is moved to Area 2 prior to capping. EA suggests sampling once every 500 yards for contaminants of concern.

EA response: EA will sample and analyze the soil for metals of concern arsenic, lead, and mercury at a frequency of once per 500 cubic yards. The material will be disposed off site if an Upper Concentration Limit is exceeded. The analytical results will be provided in the Remedial Action Closure Report.

Department response: These analytical results for arsenic, lead, and mercury shall be submitted to the Department as soon as they are available, during the Remedial Action, to determine

whether the soils should be placed under the cap or, if they exceed Upper Concentration Limits, disposed of off-site.

Steven Fischbach requested geotextile in areas of cattails and wetland plantings.

EA response: EA and the City agree, and the plans and specs have been revised accordingly.

Steven Fischbach requested thorny plants rather than trees (removing American Holly and Arborvitaes).

EA response: EA and the City agree, and the plans and specs have been revised accordingly.

Consensus that geotextile and thorny bushes are preferable to trees with no geotextile.

EA response: EA and the City agree, and the plans and specs have been revised accordingly.

Steven Fischbach expressed concern regarding the area of the confluence of the river and sluiceway as an attraction to the public and stated that we need to consider preventing access to this area.

EA response: EA and the City have proposed increasing the density of plantings in this area.

Robert McMahon recommended cattail plantings within the sluiceway to block view of the potentially orange-stained check dams.

EA response: EA is not confident of the cattail plantings surviving within the sluiceway in this area, as we have designed the check dams to increase velocity in this area.

Rhode Island Legal Services states “...the City of Providence agreed...to sample for dioxins at three locations before excavated soil is placed under the cap...”.

EA response: The City has agreed to collect three composite samples of depositional sediment from areas impacted by the recent flooding. These samples will be analyzed for 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) via EPA Method 1613. These samples will be collected as a Limited Design Investigation in accordance with Section 9.05 of the RIDEM Remediation Regulations, as the presence or absence of dioxin will not alter the design of the selected remedial alternative.

Department response: The Department received the results of the depositional sediment dioxin sampling on May 20, 2010. Three composite samples were collected from the 0 – 1 foot interval using a hand auger. The three samples exhibited dioxin concentrations of 43, 120, and 68 parts per trillion, with an Environmental Protection Agency (EPA) Residential Screening Level of 50 parts per trillion and an EPA Residential Action Level of 1,000 parts per trillion. The Department concurs with the abovementioned response that the presence of dioxins will not alter the design of the selected remedy. The Department of Environmental Management, along with the Department of Health, concur that a standard cap (e.g. two feet of clean fill or one foot of clean fill over a

geotextile fabric) is an appropriate cap for dioxin contamination, further preventing direct exposure of these contaminants to the public.

Steven Fischbach requested post-flooding sampling/monitoring to determine if the cap is impacted.

EA response: EA and the City have determined that, while the City cannot be responsible for potential impacts from depositional sediments, post-flooding sampling and analysis will be conducted (see comment below). Additionally, the City will examine the potential impacts of flooding on the cap in terms of damaging the cap integrity.

Department response: The Department does not require post-flooding sampling of the cap. This post-flooding sampling shall be a separate agreement between the City of Providence and the HPRA. It is the sole responsibility of the City of Providence and/or their consultant to forward any sampling results to the Department if any samples are collected on this site. It is the sole responsibility of the City to ensure that the Site remains in compliance with the Remediation Regulations. The Department conducts random audits of properties with ELURs.

Rhode Island Legal Services states "...the City of Providence agreed...to sample for dioxins...after extreme flooding events such as the one that just occurred..."

EA response: The City has agreed to sample for 2,3,7,8-TCDD after extreme flooding events. EA and the City define an extreme flooding event as a 100-year storm, defined as 7 in. of rainfall over a 24-hour period, in addition to the LLB property being inundated by the Woonasquatucket River. If the definition of a 100-year rainfall event is revised in the future, the City shall adopt the revised measure. After such events, the City agrees to collect three composite samples for depositional sediment and analyze the samples for 2,3,7,8-TCDD via EPA Method 1613.

Department response: The Department does not require post-flooding dioxin sampling of the cap. This post-flooding dioxin sampling shall be a separate agreement between the City of Providence and the HPRA. It is the sole responsibility of the City of Providence and/or their consultant to forward any dioxin sampling results to the Department if any samples are collected on this site. It is the sole responsibility of the City to ensure that the Site, including the cap, remains in compliance with the Remediation Regulations. The Department conducts random audits of properties with ELURs.

Robert McMahon suggested sampling Merino Park to determine impacts from flooding.

EA response: Further discussion has led to an agreement to sample soils at Merino Park and analyze the samples for 2,3,7,8-TCDD via EPA Method 1613.

Department response: There has not been any evidence submitted to the Department to date indicating that Merino Park has been impacted by contamination; therefore, Merino Park is not currently jurisdictional under the Department's Remediation Regulations. If information becomes available that makes the Park jurisdictional, please forward the documentation to this Office for Department review and the Department shall take the appropriate regulatory action for

jurisdictional sites.

Steven Fischbach suggested moving the check dams upstream.

EA response: EA has determined the check dams cannot be relocated upstream, as they would be placed upon contaminated sediment. EA and the City would like to avoid working in contaminated sediments. Instead, EA has removed one of the check dams. Now, only one will be visible from the bridge and will be approximately 80 ft from the bridge.

EA will send a copy of the bridge design to Steven Fischbach and Robert McMahon upon receipt from Fay Spofford and Thorndike.

EA response: EA remains committed to this comment.

EA will submit draft signs (regarding educating the public of the iron flocculent in the sluiceway) to the Hartford Park Resident's Association for review and approval.

EA response: EA remains committed to this comment.

Construction fencing is needed at the entrance to LLB from Merino Park.

EA response: EA and the City agree, and the plans and specs have been revised accordingly.

A 1-ft soil cap and geotextile will be installed around existing trees after an air spade excavation is preformed to remove surficial contamination. The trees will be monitored on a quarterly basis to determine if they remain healthy. If determined otherwise, the trees will be removed and the cap repaired in accordance with language to be inserted into the SMP.

EA response: Further discussion on this point has led to the decision (between the City and EA) that the areas surrounding remaining trees will not be excavated. Rather, the soil cap will extend to the tree trunks. This may harm the trees over the long term. Therefore, the Parks Department will monitor the trees on a semiannual, rather than a quarterly basis. It was determined that quarterly inspections are excessive and semiannual inspections will suffice in monitoring the health of the trees to prevent a sudden uprooting. EA will include this requirement in the draft Environmental Land Usage Restriction that will be submitted with the Revised Remedial Action Work Plan upon receipt of the anticipated Remedial Decision Letter.

Department response: These semiannual tree inspections shall be a separate agreement between the City of Providence and the HPRA. The Department does, however, require annual inspections per the proposed Environmental Land Usage Restriction (ELUR) and a report summarizing said inspections with any proposed modifications to remedy the applicable ELUR and/or cap violations.

Rhode Island Legal Services states "...the City of Providence agreed to reconfigure the fourth check dam into an area of quick water."

EA response: The City has agreed to reconfigure the fourth check dam to allow for a riffle on the

downgradient end rather than a drop. RILS and HPRA were concerned that the appearance of a waterfall-like structure would be an attraction to children visiting the bike path. The revision to a riffle would lessen the visual attraction. This check dam is the only one visible from the proposed bike path bridge crossing the sluiceway.

Rhode Island Legal Services states “...HPRA requests that it be involved in the development of any post-flooding sampling plan that may be implemented as part of long-term monitoring of the site.”

EA response: The City agrees with this request. The City agrees to forward the proposed sampling plans to HPRA and its representatives for comment prior to initiation of the sampling plan. The City will take into consideration all comments from HPRA in finalizing the post-flooding monitoring plan.

Department response: This post-flooding sampling shall be a separate agreement between the City of Providence and the HPRA. It is the sole responsibility of the City of Providence and/or their consultant to forward any sampling results to the Department if any samples are collected on this site. It is the sole responsibility of the City to ensure that the Site remains in compliance with the Remediation Regulations. The Department conducts random audits of properties with ELURs.

Rhode Island Legal Services states “...HPRA would prefer to see dioxin samples taken for every 500 tons of soil placed under the cap as the City will do for other contaminants being placed under the cap (arsenic, lead, and mercury, as described in the March 29th letter) and also asks to be notified of the results of those samples.”

EA response: Please note that the City agreed to sample and analyze soils being placed beneath the engineered barrier at a frequency of one sample per 500 cubic yards, not per 500 tons.

EA response: The City has agreed to collect three composite samples of depositional sediment from across the site prior to initiation of construction of the proposed engineered barrier. This sampling scenario was proposed based on the ubiquitous distribution of sediments deposited upon the Site during the flood. This type of depositional environment would not concentrate dioxin in one location as would a point source (tank, discharge pipe, etc.). Therefore, collection of three composite samples will be adequate to determine the presence or absence of dioxins at the Site.

Rhode Island Legal Services “...requests that DEM establish an Internet document repository for the entire Lincoln Lace Site including the landfill portion of the site, and any periodic monitoring reports for the site be placed into the Internet document repository.”

Department response: The Department is in the process of gathering electronic documents and milestone letters to generate an Internet document repository for the Lincoln Lace & Braid – Mill Site portion of the property. Please note that the remedy for the Landfill portion of Lincoln Lace & Braid has already been completed and is considered by the Department as a separate site, however, the Department will attempt, within reason, to include documents related to the Landfill portion in the Internet document repository, which may prove difficult due to the age and size of said documents (the Department does not have some reports in electronic format). All interested parties

(e.g. Rhode Island Legal Services, Hartford Park Residents Association, the City, etc.) will be notified once the Internet document repository has been established. Please note that hard copies of all of the documents are available at the Department and can reviewed by scheduling a file review with the Department.