



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

July 14, 2003

Ms. Roberta Groch, Senior Planner  
City of Providence  
Dept. of Planning and Development  
400 Westminster Street  
Providence, RI 02903-3215

RE: Former Lincoln Lace and Braid Property, Providence  
Sluiceway Remediation Proposal

Dear Ms. Groch:

In the matter of the Sluiceway Remediation Proposal for above-referenced Site, the Office of Waste Management and Office of Water Resources have reviewed the November 2002 *Remedial Action Work Plan (RAWP)* and the *UIC Program Application for an Order of Approval*. Based on its review, the Department has several questions and comments that must be addressed in writing.

**With respect to the RAWP, please address the following comments:**

1. Please provide a legible site figure. The site figure must clearly depict the sluiceway, the concrete dewatering pad, the locations of existing monitoring wells and previous borings, and other key site features.
2. As the *RAWP* does not include all of the remedial activities necessary to bring the Site into compliance with the Remediation Regulations, the *RAWP* should indicate how the proposed activities relate to and are consistent with the overall prospective remedy for the Site. Specifically, Section 16 of the *RAWP* should indicate that engineered controls (i.e., encapsulation) and institutional controls in the form of an Environmental Land Usage Restriction (ELUR) will be part of the overall remedy for the Site.
3. Based upon the concentrations of Lead, Arsenic, Beryllium, and Total Petroleum Hydrocarbons in the on-site soils, on-site soils are not acceptable for use as backfill for the sluiceway. It shall be the responsibility of the environmental consultant and the City of Providence to certify that the soils used to fill the sluiceway meet Residential Direct Exposure Criteria and GB Leachability Criteria, and to provide supporting documentation to the Department.
4. Dredged materials must be removed from the Site for proper off-site disposal, and copies of the disposal records must be submitted to the Department in the Closure Report.
5. The *RAWP* must address the need for floodplain compensation as it may pertain to any loss in the 100-year floodplain resulting from filling the sluiceway.
6. Section 5 and Figure 3 of the *RAWP* propose to discharge treated dewatering system effluent to a shallow injection well, whereas Section 11 of the *RAWP* proposes to discharge treated dewatering system effluent directly to the river. Please revise the *RAWP* text and figure as appropriate.

7. Please note that the effluent discharge limits for the dewatering system shall be those established in the UIC Program approval.
8. Employing a 1-micron sediment filter bag prior to the first frac tank of the dewatering treatment system seems impractical. Please explain the rationale, or revise, as appropriate.
9. Please note that the collection sump for the concrete dewatering pad runoff must be solid (non-leaching).
10. Site inspections and monitoring should also be performed during implementation of the remedy, not just after completion of individual tasks of the remedy.
11. Stockpiled soils and sediments should be covered at the end of each workday and when otherwise not in use to prevent erosion.
12. Please also include in the Operation Log:
  - a. dewatering treatment system flow rates and the total volume of water treated during each work day;
  - b. the date, time, and location of effluent samples collected from the dewatering treatment system; and,
  - c. the amount of ORC injected into each boring and the date of injection.
13. Please note that the entrance gate (or gate lock) may warrant repair or replacement in order to facilitate site security. In addition, it has come to the Department's attention that the use of a security guard during nights and weekends is no longer proposed. If this is the case, please revise the *RAWP* accordingly.
14. The *RAWP* must propose a means of determining attainment of the Remedial Objective for groundwater.
15. In order to meet certification requirements, the *RAWP* must be stamped by a Rhode Island registered Professional Engineer.
16. Public notice must be performed in accordance with Rules 7.07 and 7.09 of the Remediation Regulations to afford the public the opportunity to review and comment on the technical feasibility of the proposed remedy.
17. Pursuant to Rule 10.02 of the Remediation Regulations, please remit to this Office the *Remedial Action Approval Application Fee* in the form of a check for \$1000.<sup>00</sup> (one thousand dollars) made payable to the **General Treasurer, State of Rhode Island**.

**With respect to the *UIC Application*, please address the following questions and comments:**

18. Please refer to comment #1 of this correspondence.
19. Has the water to be pumped from the raceway been analytically characterized? If so, are there any contaminants of concern and what are they? If the water has not been characterized, why not?
20. How long will the pump and treat system be operational? How many gallons of water are estimated to be discharged to the infiltration trench?

21. Provide the seasonal high groundwater table elevation, soil profile and infiltration rate for the soils in the proposed area of the infiltration trench. Note that the bottom of the infiltration trench must have at least 3 feet of vertical separation from the seasonal high groundwater table.
22. Provide a cross sectional view for the proposed infiltration trench indicating any structures, piping, stone, filter fabric and other materials to be used, as well as, the elevations for surface grade, bottom of the trench, and seasonal high groundwater table.
23. Figure 2 contained in the application package indicates the use of a second sump and pump near the sediment dewatering area. There is no mention in the proposal of how the second sump and pump are to be utilized. Please explain and identify the proposed use, estimated volume of water to be treated, and potential contaminants that may be encountered.
24. Provide a proposal for the analytical testing of the treated surface water/groundwater prior to discharge. The proposal should include the laboratory analytical methods to be used and frequency of testing and the reasoning behind them.
25. Provide background and an explanation for the use of ORC at the site. What are the contaminants of concern to be treated? What are the goals of the treatment? What is the potential for the creation of degradation products and/or any undesired side effects due to the use of ORC?
26. Provide the calculations and associated explanation used to determine the amount of ORC to be utilized in each injection point.
27. Provide a plan for monitoring the groundwater after injection of the ORC. The plan at minimum should include the identification of wells to be monitored, analytical testing to be performed and frequency of monitoring.

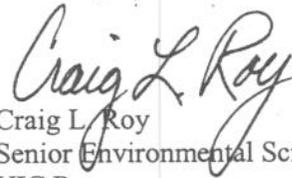
If you have any questions regarding this correspondence, or if you would like to meet with Department personnel to discuss this project, please contact us at the telephone numbers or email addresses provided below.

Sincerely,



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Sincerely,



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