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LETTER REGARDING SEACOAST ANTI-POLLUTION LEAGUE REVIEW COMMENTS ON THE FIELD DEMONSTRATION WORK PLAN FOR SITE 6 NSY PORTSMOUTH ME
4/8/2003
LEPAGE ENVIRONMENTAL SERVICES

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April 8, 2003

Ms. Marty Raymond
Portsmouth Naval Shipyard
Code 106.3 R, Building 44
Portsmouth, New Hampshire 03804-5000

Subject: Review of February 24, 2003 *Field Demonstration Work Plan, Quality Assurance Project Plan, and Health and Safety Plan, Site 6*

Dear Ms. Raymond:

We are transmitting the following comments on behalf of the Seacoast Anti-Pollution League (SAPL) on the February 24, 2003 *Field Demonstration Work Plan, Quality Assurance Project Plan, and Health and Safety Plan, Site 6*:

1. Pilot Study Concept. SAPL supports the concept of performing the field demonstration at Site 6. There is likely some useful information that can be gained. However, SAPL also notes that the proposed method has been described as immobilizing rather than eliminating contaminants, the objective being to reduce the concentrations of specific contaminants in leachate. However, as the Maine Department of Environmental Protection indicates in its comment letter dated April 4, 2003, reduction of concentrations in leachate alone will not be a sufficient remedy for Site 6 contamination - disposal of material will also be required. If the Navy intends to consider the Encapco treatment technology in a Feasibility Study, additional discussion with the regulators will be required to address the disposal issue.

2. General Comment. SAPL concurs with the majority of the MEDEP's comments dated April 4, 2003, and will not repeat them below except where particular emphasis is desired.

3. Page 7, Section 1.0 Introduction. The Quality Assurance Project Plan (QAPP) and the Health and Safety Plan (HASP) are included as Appendix A and B, respectively. The text should be corrected.

4. Page 8, Section 1.1 Background. The last paragraph in Section 1.1 states that three surface soul samples were collected for an initial treatability study (ITS). However, the results for only 2 samples, Samples 2 and 3, are described further in the text and listed in Table 1-1. Furthermore, Figures 1-1 and 3-1 indicate that Sample 1 is located within the boundary of Site 29, which is immediately adjacent to Site 6. The text should be revised to explain the location of Sample 1 and

the results of any analysis should also be provided. If the sample was not analyzed, an explanation should be included instead. SAPL also notes that the samples were not analyzed for dioxin. Dioxin is a known contaminant at Site 29. Waste handling and disposal activities at Site 29 were such that contaminants could have readily been blown or otherwise transported to Site 6. Therefore, SAPL believes that analysis conducted under the pilot study should include dioxin.

5. Page 10, Section1.3 Regulatory Drivers. SAPL concurs with MEDEP (Comment Number 5a) that the petroleum in Site 6 soil does not fall under CERCLA's petroleum exclusion provision. However, with regard to revising the statement "Typically, soils containing petroleum products are not deemed hazardous", SAPL believes that petroleum-contaminated soils can present some very real hazards and risk. Any revision to the statement should reflect that soils contaminated only with petroleum are excluded under CERCLA, not that they aren't hazardous.

6. Page 10, Section 1.4 Stakeholder/End-User Issues. In addition to the issues identified is this section, SAPL is also concerned with determining if the proposed technology works effectively on all contaminants of concern, including dioxin.

7. Page 11, Section 2.2, Previous Testing of the Technology. SAPL is particularly interested in how post-treatment monitoring has been conducted and what it has shown at the two sites described in Section 2.2, particularly with regard to long-term effectiveness of the method.

8. Page 12, Section 2.4 Advantages and Limitations of the Technology. "*...it is possible that contaminant concentrations could exceed the technology's ability to meet statutory criteria.*" Has this situation been encountered in previous testing? Are there particular circumstances or contaminants where this outcome is anticipated as being more likely?

9. Page 13, Section 3.1 Performance Objectives. What are the "applicable or relevant and appropriate requirements" that the remedy selected for Site 6 must meet? Which requirements are likely to be more difficult to meet with the technology proposed, given the array and concentrations of contaminants at Site 6?

10. Page 13, Section 3.1 Performance Objectives. SAPL has previously commented on reports for other Portsmouth sites about the necessity of clearly identifying detection limits when comparing analytical results to screening criteria. If detection limits are greater than screening criteria, then interpretations regarding the number and frequency of criteria exceedances must be properly qualified. However, in the proposed Site 6 demonstration, the performance objectives for TPH and PAH compounds will be the 'method reporting limits'. Without some additional information, SAPL can't provide a specific comment on the proposed objectives. SAPL notes that instrument detection limit and quantitation limit are defined in Section A.3.3 on page 40. How is method reporting limit defined and how does it differ from the method detection limit? How does the method reporting limit compare with regulatory requirements?

11. Page 14, Table 3-1 Performance Objectives. Three items are listed in the Primary Performance Criteria column for Qualitative Performance Objectives, but no Expected Performance Metrics are identifies. How will it be determined if the Qualitative Performance Objectives are met? The Expected Performance Metric for each Arochlor is 5 ug/l, which is the same as the Action Levels listed in Table A2.2 on page 36. However, the Action Level for the Arochlors listed in Table A3-2 on page 42 is 0.001mg/l. Please explain the difference.

12. Page 14, Table 3-1 Performance Objectives. The Expected Performance Metric for the decrease in soil permeability is ,1 x 10E-5 cm/s. However, in Tables A2-2 and A3-2, this value is followed by the statement "... or one order of magnitude less than untreated soil." Notes from the January 30, 2003, Restoration Advisory Board meeting indicate that anticipated soil conductivities on the order of 10E-6 to 10E-7 were presented and that there was no discussion of reductions of one order of magnitude. This inconsistency should be explained and corrected. In Tables A2-2 and A3-2, the line for Marshall Stability includes a value of 700 pounds, as well as flow for aggregate subbase of between 0.01 and 0.02 inches. Please explain why the entry for Table 3-1 is different and correct all three tables as needed.

13. Page 17, Section 3.4 A) Determination of Baseline Contaminant Concentrations. The baseline analysis must include dioxin (See Comment Number 4, above). If dioxin is detected, samples collected during and after treatment should also be tested for dioxin (see pages 21 and 23). This comment also applies to relevant passages in the QAPP in Appendix A.

14. Page 23, Section 3.5.6 Encapco Treatment Process. The final paragraph in Section 3.5.6 provides the course of action for each of two leachate concentration scenarios. What would be the course of action if the leachate results were acceptable, but the strength of the material did not meet action levels?

15. Page 27, Table 4-1 Performance Criteria. It is not clear what the heading in the last column (Primary or Secondary (examples)) means, or what 'not used' means for the Contaminant Reduction entry. Please clarify in the text or add a footnote to the table. The table states that weather is the only uncontrolled variable that could affect operating performance. Does 'operating performance' mean the implementation of the soil treatment method or does it also refer to post-treatment conditions and long-term effectiveness? SAPL is concerned with the long-term performance and effectiveness of the proposed method. In addition, what are the potential impacts of freeze-thaw cycles, as well as saline aerosols and backish groundwater on the treated material?

16. Pages 28 and 29, Table 5-1 Cost Tracking. The acronyms SC, UXO, and CU should be explained. Long-term Monitoring is the last subcategory listed under the Direct Environmental Activity Costs category. As noted in comments above, SAPL is concerned with the long-term effectiveness of this method. What does the Navy anticipate would be involved in long-term monitoring? If the Encapco field demonstration project is implemented, what followup monitoring will be conducted?

17. Page 33, Section A2.2 Decision Identification. The two decision statements at the end of Section A2.2 do not address long-term effectiveness. SAPL's concern is not just with "Does it work now" but what happens to the material and contamination as time passes and/or conditions change. For the Encapco method to be considered as a viable remedial alternative for Site 6, the questions regarding long-term effectiveness must be addressed.

18. Page 36, Table A2-2 Critical Parameters and Action Levels. See Comment Number 11, above, regarding the consistency of entries in Tables 3-1, A2-2 and A3-2. SAPL also notes that TRPH is listed as a Critical Parameter in Table A2-2, and a Non-Critical Parameter on page 44 of Table A3-2.

19. Page 40, Section A3.3 Detection and Quantitation Limits. See Comment Number 10, above, regarding the definition of method detection limits and reporting limits.

20. Pages 42 - 46, Table A3-2 Analytical Methods, Method Detection Limits, Reporting Limits, and Action Levels. See Comment Number 11, above, regarding the consistency of entries in Tables 3-1, A2-2 and A3-2, and Comment Number 10 regarding the definition of method detection limits and reporting limits.

21. Page 46, Section A4.2 Sample Handling. The Work Plan section describing sample collection methods should be referenced in QAPP Section A4.2 so the reader can readily find the description.

22. Pages 57 -60, Section A6.3 - Table A6.2. There are several reporting and data validation processes covered in the sections on pages 57 through 60, and a characterization report is mentioned in the footnote in Table A6.2. However, there is no readily apparent description of the final study or project report that the regulators and the RAB will see. This report should also be described in the QAPP.

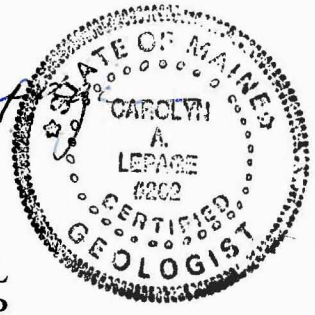
23. Appendix B: Health and Safety Plan. Based on a cursory review of Appendix B, SAPL notes several items. Radioactive hazard monitoring should be addressed in the HASP. Hazards associated with processing and handling hot or heating materials does not appear to be covered. Engineering controls for dust management and suppression were not obvious, nor were spill control measures and response.

24. Figures 1-1 and 3-1. Both figures show the proximity of Sites 6 and 29 - Site 6 and the DRMO Impact Area wrap partway around Site 29, and ITS Sample 1 was actually collected within the Site 29 boundary. Because the two sites are so close to each other and because of the possibility of contaminant transport from one site to the other, has the Navy considered remediating the sites (or aspects of the sites) together?

If you have any questions regarding the comments above, please give me a call at 207-777-1049.

Sincerely,

Carolyn A. Lepage



Carolyn A. Lepage, C.G.
President

cc: James Horrigan, SAPL
Iver McLeod, MEDEP
Matt Audet, USEPA

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