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LETTER REGARDING SEACOAST ANTI-POLLUTION LEAGUE REVIEW COMMENTS ON DRAFT ADDITIONAL INVESTIGATION REPORT FOR SITE 10 NSY PORTSMOUTH ME
8/17/2002
LEPAGE ENVIRONMENTAL SERVICES

Lepage Environmental Services, Inc.

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August 17, 2002

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

Subject: Review of June 2002 Draft *Site 10 Additional Investigation Report*

Dear Ms. Raymond:

We are transmitting the following comments on behalf of the Seacoast Anti-Pollution League (SAPL) on the June 2002 Draft *Site 10 Additional Investigation Report*. Comments are as follows:

1. General Comment. SAPL concurs with the majority of the Maine Department of Environmental Protection's (MEDEP) comments on the Site 10 Report as expressed in the agency's letter dated August 12, 2002, and will not duplicate those comments below except where particular emphasis is warranted.

2. Page ES-3, SUMMARY OF FINDINGS. The middle paragraph on the page states that because lead was detected in a single sampling event at only one well, a limited extent of residual lead contamination likely exists in the area around the former tank. SAPL concurs with the MEDEP's Comment Number 1 that the data suggest that groundwater flow at Site 10 is complex, and that without more groundwater samples, the distribution of contaminants at Site 10 likely will not be understood. Furthermore, that the single detection may not represent the maximum lead concentration in groundwater. Additional groundwater investigation is needed.

3. Page 2-1, Section 2.1 SUBSURFACE UTILITY LOCATION. Several items in the last paragraph on the page should be clarified in the text. Based on the utility survey, were all sampling locations moved? What are the stability concerns mentioned in the second sentence? Why was sampling location BA-2D eliminated, rather than moved to a new location?

4. Page 2-2, Section 2.2 SPLIT-BARREL SAMPLING AND MONITORING WELL TIDAL GAUGE INSTALLATION. The shallowest refusal depth is identified as 22 feet bgs (below ground surface) at BA-2F. However, the log in Appendix A shows that the boring extended to 28' 4". Please correct.

5. Page 2-3, Section 2.4 DIRECT PUSH TECHNOLOGY SOIL SAMPLING. The text should be revised to include an explanation as to why direct-push borings were terminated at either 6 or 8 feet bgs. The explanation should cover why only shallow borings were installed (shallow versus the 22 feet bgs mentioned in Section 2.2) and why the borings were terminated at 6 and 8 feet (study design, refusal, etc.).

6. Page 3-5, Table 3-1. Please explain the range of tidal fluctuations with regard to well location on-site (disregarding BA-MW02). In general, wouldn't the well furthest inland at the site be expected to have the smallest range, not the largest? Yet the tidal range at BA-MW03 is almost one foot greater than at BA-MW05 and 1.5 feet greater than at the other two nearby wells. Also, given the relatively small size of the site, and that the four on-site wells are less than 100 feet apart, the magnitude of the variation in tidal ranges seems excessive as well.

7. Page 4-5, Section4.4 GROUNDWATER ANALYTICAL RESULTS. SAPL concurs with MEDEP's Comment Number 14 that the results of the groundwater sampling are disturbing and suggest that the general water chemistry was different between sampling events. Apparently the 9 to 10 feet of tidal purging of fill underlying the site affects the repeatability of metal concentrations in groundwater. Both MEDEP and SAPL commented during the development of the *Site 10 Additional Investigation Quality Assurance Project Plan* on the minimum number of sampling rounds needed to get representative, repeatable data for the site. SAPL was particularly concerned with the potential for groundwater levels associated with extremely high tidal levels to potentially mobilize contaminants from soils that are typically above the water table (see Comment Number 8, dated August 23, 2001). SAPL provided information in that comment regarding minimum groundwater sampling requirements for sites governed by the State of Maine's regulations for hazardous waste, solid waste, and underground hazardous substance storage facilities. All of the regulations require either a minimum of four rounds of sampling at a well location or sufficient sampling to determine if an occurrence is "statistically significant". SAPL also pointed out that confirmation of negative results would be needed before Site10 can be "written off". Clearly additional groundwater sampling must be conducted at Site 10.

8. Page 4-8, Section 4.5 SUMMARY OF THE NATURE AND EXTENT OF CONTAMINATION. SAPL shares the MEDEP's concern regarding the consistent detection of cobalt in groundwater samples. In addition to the MEDEP's Comment Number 15 that the Navy should discuss on page 4-7 why the cobalt is there, where the cobalt came from, and why it is not likely to be related to the nuclear reactors on submarines, the Navy should also revise the last paragraph on page 4-8 to indicate that cobalt was statistically significantly elevated above background in both A and B sampling events.

9. Page 5-4, Section 5.3 UNCERTAINTY ANALYSIS FOR RISK SCREENING. SAPL agrees with the MEDEP's position (Comment Number 18a) that the true maximum concentrations in groundwater may not be approximated by samples from four wells over two rounds spaced 2 to 3 days apart, and that additional samples should be collected. The MEDEP suggests further discussion with the Navy. SAPL looks forward to resolving this issue.

10. Page 6-2, Section 6.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER ACTION. As noted in Comments 2, 7, and 9, above, additional groundwater investigation and sampling must be conducted at Site 10 to understand the site's hydrogeologic regime and contaminant migration mechanisms, and to collect sufficient representative data to assess the risk posed by the site. A bullet addressing these needs should be added at the bottom of page 6-2 and to the Recommendations for Further Action section on page ES-4.

11. Appendix A. Evidence of possible petroleum contamination (odor, sheen, staining) is noted in some of the boring logs. These observations should be discussed in the body of the report.

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

Sincerely,

Carolyn A. Lepage

STATE OF MAINE
CAROLYN A. LEPAGE
2532
CERTIFIED GEOLOGIST

Carolyn A. Lepage, C.G.
President

cc: James Horrigan, SAPL
Iver McLeod, MEDEP
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