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LETTER REGARDING SEACOAST ANTI-POLLUTION LEAGUE REVIEW COMMENTS ON  
AUGUST 2001 DRAFT ADDITIONAL INVESTIGATION QUALITY ASSURANCE PLAN FOR  
SITE 10 NSY PORTSMOUTH ME  
8/23/2001  
LEPAGE ENVIRONMENTAL SERVICES

# Lepage Environmental Services, Inc.

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August 23, 2001

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

Subject: Review of August 2001 Interim Submittal for the Draft *Site 10 Additional Investigation Quality Assurance Project Plan*

Dear Ms. Raymond:

We are transmitting the following comments on behalf of the Seacoast Anti-Pollution League (SAPL) on the August 2001 Interim Submittal for the *Site 10 Additional Investigation Quality Assurance Project Plan* (QAPP). The Interim Submittal includes the minutes for the July 12, 2001 technical meeting, as well as resolution items (issues resolved at or after the July 12<sup>th</sup> meeting), proposed revisions to the QAPP text, and the Navy's responses to follow-up comments on the draft QAPP. Comments are as follows:

## Comments on Minutes of the July 12, 2001 Technical Meeting

- 1. General Comment.** The July 12<sup>th</sup> meeting was helpful in resolving the majority of the outstanding issues on the February 2001 *Site 10 Additional Investigation QAPP*. SAPL now has a better understanding of the Navy's rationale in developing the Data Quality Objectives (DQOs) for the Site 10 investigation. SAPL also appreciates the opportunity to discuss and resolve issues with the other parties involved with Superfund activities at the Shipyard.
- 2. Page 1.** Charles Race (TtNus Hydrogeologist and Maine Certified Geologist) also attended the meeting, and should be added to the list of attendees.
- 3. Pages 1 & 2, Review of Site Background and Conceptual Model.** In addition of the major items listed on pages 1 and 2, JP Kumar's presentation also covered that the site is located along the shore, with the shoreline consisting of a permeable quay rock wall, presumably built on bedrock. The distance from the underground storage tank to the seawall was approximately 40 feet. The location adjacent to the shore is an important feature of the site and should be added to the items listed in this section of the minutes.

**4. Page 2, Review of Site Background and Conceptual Model.** With regard to the discussion of thallium in the third paragraph, SAPL had expressed its concern in previous written comments on the QAPP and at the July 12<sup>th</sup> meeting that the QAPP needed to be revised to include a discussion of the detection of thallium in groundwater and an explanation of why the Navy did not consider thallium to be a site-related contaminant. SAPL's concern regarding the omission of the thallium information and discussion from the QAPP should be added to the third paragraph on page 2.

**5. Page 4, Review of DQOs in the Draft QAPP.** The summary of the discussion of Step 2: State the Decision is incomplete. As the minutes correctly state, it was decided that [determining] the extent of contamination was inherent in the characterization of risk and offshore impact. However, it was also agreed that wording would be added to appropriate passages of the QAPP to clearly identify where determining the extent of contamination fit with the two primary investigation objectives. The minutes should be revised.

**6. Page 5, Review of DQOs in the Draft QAPP.** The paragraph summarizing Step 3: Identify the Decision Inputs of the DQO process contains the statement that the extent of soil contamination would be based on site-specific risk-based PRGs (preliminary remediation goals) and facility background. Our notes taken at the July 12<sup>th</sup> meeting do not indicate that facility background data was discussed in the context of determining extent of site contamination. While facility background is mentioned on page 6 in Appendix A of the QAPP, we were unable to quickly find any discussion in the body of the QAPP of using the facility background data to make decisions regarding Site 10, nor is the Facility Background Data Report listed in the QAPP References section. Please clarify how the Navy intends to use facility background data in making decisions regarding Site 10. This comment also applies to the statement on page 6 of the July 12<sup>th</sup> meeting minutes that the decision rules (Step 5 of the DQO process) will consider facility background.

**Comments on the July 12, 2001 Technical Meeting Resolution Items (Attachment 3).**

**7. Attachment 3, Pages 2 & 3, Resolution 1 - Objectives of Investigation.** Please note that this Resolution should also apply to SAPL Comment 10 (on Original Comment 21). While the meeting participants agreed that characterization of the nature and extent of contamination are inherent to the determination of risks and potential offshore impacts, the point was also made that the QAPP text should be amended to clearly state this position. While several proposed text revisions are presented on pages 2 and 3 that will be helpful, it is crucial that Section 7.1 be amended to clearly state that characterization of the nature and extent of contamination are inherent to the two primary study objectives presented in that section.

**8. Attachment 3, Page 15, Resolution 6 - Sampling Approach for Groundwater.** Please note that this Resolution also applies to SAPL Comment 5 (on Original Comment 10). With regard to the temporal considerations for sampling at Site 10, SAPL concurs with part of the Maine Department of Environmental Protection's (MEDEP's) August 8, 2001 letter to the Navy regarding the minimum number of groundwater sampling rounds at Site 10. It is important to determine if there are changes in groundwater concentrations associated with high and low tidal conditions. SAPL is 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. To that end, it is important that the groundwater sampling test this condition. While SAPL supports MEDEP's position that groundwater representing both high and low tidal levels should be sampled, SAPL believes that a single round of sampling for each tidal cycle will not be adequate for site characterization and decision-making, and does not reflect regulatory requirements for groundwater monitoring at other active and inactive facilities in the State of Maine. The following is intended to provide additional background on SAPL's discomfort that a single round of sampling would be sufficient to characterize Site 10 groundwater conditions and made informed decisions regarding the need for remediation.

The July 12<sup>th</sup> meeting minutes mentions groundwater monitoring requirements for one hazardous waste program (RCRA). A check of State of Maine regulations also indicates consensus that one round of sampling is not sufficient for site characterization or for making remedial action decisions. For instance, the Chapter 405 of the State of Maine Solid Waste Management Regulations (Section C (1)(a)) states that for site characterization monitoring, four or more independent samples from each ground and surface water sample point approved by the MEDEP is required for proper characterization. The data obtained during the site characterization monitoring is used to develop the detection monitoring program. Detection monitoring (Section C (2)) is employed to detect changes in water quality while a facility is active and during closure and post-closure periods, and specifies 3 sampling events per year. Assessment monitoring (Section C(3)) is intended to determine the nature and extent of a release of contaminants to ground or surface water, and must include three sampling events per year.

Chapter 854 (Standards for Hazardous Waste Facilities) of the State of Maine Hazardous Waste Management Rules also includes requirements for groundwater monitoring in Section D. A minimum of four wells are required to be sampled according to a schedule approved by the MEDEP. For the purposes of this section, "detection" is defined as statistically significant evidence of contamination, and "exceedance" is defined as statistically significant evidence of increased contamination.

Chapter 695 spells out the State of Maine's Rules for Underground Hazardous Substance Storage Facilities. These are the rules that would likely have applied if the underground storage tank at Site 10 had been licensed. Section B of Chapter 695 provides the requirements for leak investigation and confirmation. If any environmental evidence of a leak is present on or off site, a

site assessment in accordance with Appendix G (Minimum Standards for Site Assessments) of Chapter 695 must be performed. Appendix G states that the site shall be sampled in sufficient density for substances that would indicate the presence of all known hazardous substances stored during the operational life of the tank. A statistically significant sampling program acceptable to the MEDEP must be completed to show that the site is not [emphasis added] contaminated. If contamination is present, the site assessment shall discuss the toxicity, mobility, and persistence of contaminants in relation to the hydrogeology of the site and in relation to potential receptors.

All of the state regulations cited above require more than one round of groundwater sampling for site characterization and contamination assessment. The use of the term "significantly significant" also means that more than one round of sampling is required when addressing potential effects of a release. SAPL does not believe that the one round of groundwater sampling proposed by the Navy is adequate to characterize conditions at Site 10 or reflects recent and current standards of practice. Furthermore, confirmation of negative results is also needed before Site 10 can be "written off". SAPL hesitates to identify a specific number of sampling rounds that would be acceptable without additional discussion with the Navy and the regulatory agencies.

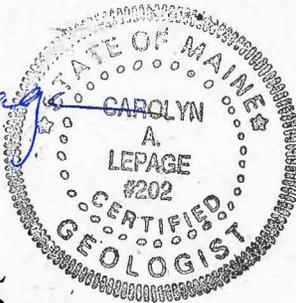
**9. Attachment 3, Page 15, Resolution 6 - Concentrations of Metals Other Than Lead in Site 10 Samples.** SAPL appreciates the text revisions the Navy proposes for the QAPP to explain why lead is the primary indicator for site contamination and why the thallium detected in groundwater is believed to be a false positive. With regard to concentrations of thallium that normally occur in seawater, SAPL notes that a concentration of 0.01 ug/kg is reported in one reference checked (Drever, James I., 1988, *The Geochemistry of Natural Waters*: Prentice Hall - see Table 12-1). What values has the Navy found for thallium in sea water?

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

Sincerely,



Carolyn A. Lepage, C.G.  
President



cc: James Horrigan, SAPL  
Iver McLeod, MEDEP  
Meghan Cassidy, USEPA