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LETTER REGARDING SEACOAST ANTI-POLLUTION LEAGUE REVIEW COMMENTS ON
THE DRAFT SITE INVESTIGATION QUALITY ASSURANCE PLAN FOR SITE 34 NSY
PORTSMOUTH ME
10/19/2002
LEPAGE ENVIRONMENTAL SERVICES

Lepage Environmental Services, Inc.

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October 19, 2002

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

Subject: Review of August 2002 Daft *Site 34 Site 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 2002 Daft *Site 34 Site Investigation Quality Assurance Project Plan*.

1. General Comment. SAPL concurs with the majority of the comments presented in the Maine Department of Environmental Protection's (MEDEP's) letter dated October 16, 2002, and the U.S. Environmental Protection Agency's (USEPA's) letter dated October 10, 2002, and will not duplicate the agencies' comments except where SAPL feels additional emphasis is needed.

2. Page ES-1, INTRODUCTION. The second bullet states that following a removal action of the ash pile and associated contaminated soil, any impacts to the environmental media that may have occurred due to other sources at the site also need[s] to be evaluated for site screening (SS) purposes. The text should be revised to clarify that the impact of the ash pile, as well as other potential sources, will be evaluated for SS purposes. In addition, the second bullet states that the other sources present at Site 34 are the tar pit under Building 62 and the pesticide-rinse wash pad/drainage. While SAPL agrees that these two potential sources must be evaluated for site screening purposes, the information presented in the QAPP does not indicate that the possibility of other potential sources at Site 34 can be ruled out. Of particular concern is the storage and handling of pesticides. For example, where were the pesticides mixed? How and where were pesticide containers stored? Are/were there floor drains in Building 62 that would allow fluids containing pesticides or other contaminants to escape to the environment? The field drawings in Appendix A show at least two 8-inch outfalls that appear to originate in two different upgradient areas, and one of the sample log sheets notes a petro[leum] odor and a sheen on the water (see Comment Number 40, below). The outfalls and the indicators of possible petroleum contamination are not described or addressed elsewhere in the QAPP. Additional information regarding these and other potential sources must be added to the QAPP to ensure that the SS investigation is not too narrowly focused. This comment also applies to Data Quality Objectives (DQOs) the Appendix B (see pages 6 and 7, for example).

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- 3. Page ES-2, INTRODUCTION.** If dioxins or cyanide are detected in any of the on-shore sample locations, the offshore sediment samples should also be analyzed for those parameters.
- 4. Page 1-1, Section 1.1 OBJECTIVES AND SCOPE.** The scope of the investigation must include the potential sources (besides the ash pile), not just the environmental media potentially impacted by the historical operations at the site.
- 5. Page 1-9, Section 1.3.1 Site Location and Description.** There appears to be a typo in the last full sentence on page 1-9. It should read, "The land on the northern side of the building..."
- 6. Page 1-10, Section 1.3.1 Site Location and Description.** The wash pad is described as having no obvious signs of any release to the adjacent soil. What is the basis for that statement? What are the signs that would indicate a [pesticide] release? Where is that previous investigation/evaluation/screening documented? SAPL requests a copy. In addition, as noted in Comment Number 2 above, the pesticide storage and handling areas at Site 34 are also of concern and should be part of the SS evaluation.
- 7. Page 1-11, Section 1.3.2 Site History and Background.** The paragraph following the bullets states that the pesticides stored in the building included Malthion, Bromacil, Biotrol, Carbaryl, and Avitrol. However, this same list of pesticides are described on page 4 in Appendix B as having been used during the 1980s, not as having been stored in Building 62. Please provide information regarding the nature and extent of record-keeping available for pesticide storage, handling, and disposal activities for Building 62 and/or for the 1960s through 1985, the period when these activities reportedly occurred at Site 34. Information regarding DDT and related compounds and Aldrin (all mentioned on page 1-13) should also be provided. The discussion of the outfall/drainage system should also address the presence of floor drains in Building 62, as well as the outfalls noted on the field observations in Appendix A (see Comment Number 41, below).
- 8. Page 1-11, Section 1.3.2 Site History and Background.** Building 60 is briefly mentioned. Information regarding Building 63, which is located east of Building 62 should also be presented. For example, when was it built, what is it/was it used for, etc. Figure 1-3 shows the ash pile extending around the east end of Building 62 and up to the north side of Building 63. Does the ash extend under Building 63?
- 9. Page 1-11, Section 1.3.2 Site History and Background.** SAPL requests a copy of the April 1999 Foster Wheeler Environmental Corporation report mentioned at the bottom of page 1-11.
- 10. Page 1-12, Section 1.3.2 Site History and Background.** The second bullet states that a concrete floor was installed between 1901 and 1912. What kind of floor was there in Building 62 prior to this? What are the contaminants that might have been produced by the blacksmithy operation between 1915 and 1930? The fourth bullet mentions pesticide storage and possibly

rinsing of pesticide equipment as occurring at Building 62 between the 1960s and 1985. Pesticide handling (such as mixing and disposal) during that period should also be addressed in the bullet.

11. Page 1-13, Section 1.4.1 Previous Investigations. SAP requests a copy of the document containing the 1998 sampling information and results.

12. Page 1-13, Section 1.4.1 Previous Investigations. The information on the intertidal sample locations is confusing. If they are indeed intertidal samples, how could they not be collected between high and low tide levels? The text and Figure 1-4 require clarification. Also, please explain why the historical shoreline shown on Figure 1-4 differs from either the Mean High Water and Mean Low Water Levels.

13. Page 1-13, Section 1.4.1 Previous Investigations. The discussion of analytical results should note that detection levels exceeded the human health screening levels for several parameters. Furthermore, all results that exceeded Region 9 criteria should be indicated by highlighting in Table 1-3, regardless of the magnitude of exceedance. The text should also note that the samples were not analyzed for dioxins.

14. Page 1-14, Section 1.4.1 Previous Investigations. The paragraph at the top of page 1-14 ends with the statement that the concentrations of other pesticides marginally exceeded their respective PRGs (Preliminary Remediation Goals). A footnote is needed on Table 1-4 regarding NC. If NC means no criteria, then only 9 of the parameters out of approximately 125 in the table have PRGs. This needs to be clarified in the text. The text must also state that the PRGs were developed before Site 34 was investigated, and therefore, will have to be evaluated for possible revision or additions once the Site 34 investigation data is available.

15. Page 1-15, Section 1.5.1 Potential Sources of Contamination. This section should be amended to include discussion of pesticide handling and storage. The first bullet should include Building 63. The second bullet or a new bullet should address pesticide storage and handling.

16. Pages 1-15 & 1-16, Section 1.5.2 Potential Contaminant Migration Mechanisms. The discussion of site drainage must also address floor drains or other drains in the building, as well as the outfalls noted in Comment Number 41, below. Migration from pesticide storage and handling locations must also be addressed, along with the migration of contaminated wash water and soil particles from the wash pad. Because the integrity of the drainage system connected to the wash pad is unknown, migration of contaminated fluids from a leaky drainage system must be added as a potential migration pathway. The final paragraph in the section opens with a sentence about PAHs in offshore sediments. Offshore monitoring data also shows a potential impact from pesticides. The text should be revised to address this omission.

- 17. Pages 1-16 & 1-17, Section 1.5.3 Land Uses and Potential Exposure.** The second sentence in the section should be revised to state "The current land use for Building 62 ...". The paragraph at the top of page 1-17 ends with the statement that the industrialized nature of the site minimizes exposure to any onshore ecological receptors. SAPL notes that the ash pile is not paved and has been there for decades, so historical and current exposure exists. The statement regarding exposure should be revised.
- 18. Table 1-3.** Any result that exceed the Region 9 criteria, regardless of magnitude, should be highlighted in the table.
- 19. Table 1-4.** Comment Number 14, above, applies to Table 1-4.
- 20. Figure 1-2.** The label for Site 34 should be moved so that it doesn't cover the site location.
- 21. Page 2-2, Section 2.2 PROBLEM DEFINITION.** As noted in Comment Number 2, above, the SS must evaluate potential pesticide handling and storage impacts. Additional action will likely be required if screening criteria are exceeded, regardless of background concentrations - please revise. The general process for evaluating the tar pit (how, when, etc.) must be added (this comment also applies to page 2 in Appendix B).
- 22. Page 2-2, Section 2.2 Problem Statement.** The statement in the second bullet must be revised to be consistent with the problem statement on page 8 in Appendix B. It should read "Data on soil and groundwater at the site and data on sediment offshore are also needed to determine the potential that site sources may have impacted environmental media for the site screening (SS) evaluation."
- 23. Page 2-3, Section 2.3 DECISION STATEMENTS.** Based on the Decision Statement on page 2-4, should there be a secondary question for the SS regarding is there sufficient information to support No Further Action or to proceed with an RI/FS or an interim action/removal action?
- 24. Page 2-3, Section 2.3 Potential Actions for SS Principal Question.** The first sentence in the first bullet should be revised to read "Determine whether an impact of one or more contaminant sources has occurred on the soil, groundwater, or sediment."
- 25. Page 2-4, Section 2.3 Principal Decision for SS.** The bullet should contain a statement regarding the additional assumption that the proposed SS sampling locations and methods are sufficient to support a No Further Action decision. This comment also applies to page 10 in Appendix B.

26. Page 2-7, Section 2.4.2 Target Parameters Selection and Development of Screening Levels for SSI. The analysis of groundwater (third bullet) must include dioxins or cyanide if detected in soil or sediment. The fourth bullet mentions pesticides/insecticides/herbicides reported by PNS to have been mixed/stored in Building 62. As noted in several comments above, the information regarding storage and handling must be added to the QAPP and considered in the SS design. For example, where did mixing occur? In addition, the fourth bullet states that the toxicity and persistence of the TCL Pesticides and PCBs is greater than the compounds reportedly mixed and stored in Building 62. Please provide a comparison of the TCL analytes and the compounds reported by the Shipyard as having been stored in Building 62.

27. Page 2-7, Section 2.4.2 Target Parameters Selection and Development of Screening Levels for SSI. Please explain the statement in the second paragraph under the bullets that following the removal action, some or all of the samples from beneath the ash pile and adjacent to the ash pile may be replaced by confirmatory samples. Does this mean that sampling under and adjacent to the ash pile won't occur until after the removal of the ash is complete?

28. Page 2-7, Section 2.4.2 Target Parameters Selection and Development of Screening Levels for SSI. The second paragraph under the bullets concludes with the statement that dioxins and cyanide will only be included in the soil analytes if detected in the ash at levels exceeding background levels and residential screening criteria. This is not acceptable. If either or both of these compounds are detected in the ash, regardless of concentration, potentially affected media (soil, groundwater, and sediment) must also be analyzed to confirm contaminants have not migrated and there have been no adverse impacts. This comment applies to all other similar passages in the QAPP (see pages 2-13, 2-15, 2-19, and pages 7, 10, and 11 in Appendix B, for example).

29. Page 2-8, Section 2.4.2 Target Parameters Selection and Development of Screening Levels for SSI. Please provide the basis and rationale for using a dilution factor of 100.

30. Page 2-8, Section 2.4.2 Target Parameters Selection and Development of Screening Levels for SSI. The two surveying tasks listed as field parameters should not be classified as such. Please revise.

31. Page 2-8, Section 2.4.2 Target Parameters Selection and Development of Screening Levels for SSI. Basic geologic information on the overburden and shallow bedrock must be collected in order to understand the site's hydrogeologic setting. Otherwise, how can sample locations and results be deemed sufficient to support a No Further Action decision? This comment also applies to pages 10 and 11 in Appendix B, where DQO Step 3, Specify Inputs to the Decision(s), is described.

32. Page 2-9, EE/CA DECISION RULE TABLE. The criteria for considering soil for removal should be screening criteria rather than background level (also applies to page 15 in Appendix B).

33. Pages 2-10 & 2-11, Principal Decision Rule for SS. As noted in earlier comments, the criteria for considering the need for further action should be screening criteria rather than background levels. That said, it also appears that the Navy is not being consistent in the application of facility background data. For soil and groundwater conditions listed on page 2-10, if the chemical concentration exceeds background, but not residential screening level, the media will be considered not impacted by the chemical. The media will also be considered not impacted if the chemical concentration does NOT exceed background. If only the exceedance of residential screening criteria matters in determining if there's been an impact, why is the Navy bothering to consider background data at all? With regard to the sediment conditions and actions on page 2-11, if a pesticide concentration in offshore sediment exceeds an ecological screening criteria, it is not acceptable to simply propose no further action and automatically kick it into the OU4 monitoring program. There should be an evaluation of potential actions (one of which should be monitor as part of the interim offshore monitoring program) within the context of the EE/CA, SS, and OU4 monitoring results. Furthermore, requiring that any pesticide concentration must exceed ecological criteria in both the offshore sediment and in the sediment collected in the onshore drainage system as the only way to designate that the sediment may have been contaminated by Site 34 is also not acceptable. There are other pathways by which pesticides could migrate from Site 34 to the offshore. The table must be revised. This comment also applies to pages 14, 17, and 18 in Appendix B.

34. Page 2-12, Section 2.6 SAMPLING DESIGN AND RATIONALE. The Navy has not yet proposed how to investigate one of the potential sources within Building 62, yet is proceeding with the rest of the study design. It is likely that a number of issues will have to be raised or revisited once evaluation of the tar pit is proposed.

35. Page 2-12, Section 2.6 SAMPLING DESIGN AND RATIONALE. The primary objective of the SS is identified as investigating whether soil and groundwater contamination has occurred because of sources at the site. The next sentence identifies only ash as a source. This passage must be revised to state that soil, groundwater or sediment contamination is to be investigated. Furthermore, the potential sources include the ash pile, the tar pit, and pesticide storage and handling areas.

36. Page 2-13, Section 2.6 Ash Pile Characterization. Foundry operation is mentioned in the first paragraph. How does this differ from blacksmithy operations described earlier? What are the resulting wastes and potential contaminants?

37. Page 2-13, Section 2.6 Soil Contamination Beneath Ash Pile. The Navy proposes collecting soil samples to a depth of 10 feet below the ground surface or until groundwater is

encountered, whichever is shallower. What is the rationale for not collecting soil samples from a greater depth? Furthermore, soils should be logged continuously to characterize the overburden for both the EE/CA and the SS. This comment applies to similar passages in the QAPP (see page 4-2, for example).

38. Page 3-13, Table 3-5. If the Final QAPP is issued at the end of March, the May-August timeframe does not seem long enough to generate the EE/CA and the Removal Action Work Plan, perform the removal action and confirmatory sampling, and then do the SS tasks. Please clarify.

39. Page 4-4, Section 4.3.2 Temporary Monitoring Point Installation. If the soil borings are proposed to go to 10 feet below the ground surface or the water table, whichever is shallower, installing a monitoring point with a 10-foot screen would mean that the screen would extend above the ground surface. Please clarify and revise as necessary.

40. Pages 5-7 - 5-17, Tables 5-1 - 5-7. Please provide commentary in the text regarding why the minimum screening levels are less than the achievable laboratory MDLs for a number of parameters in the tables, and how this will affect interpretation of data with regard to frequency of detections and number of exceedances. This comment also applies to the IDLs in Table 5-8.

41. Appendix A. The observations recorded on the log sheet for sample BC-6202-SD-0897 include a petro[leum] odor and sheen [on] water. How will these signs of potential contamination be addressed in the SS? Also noted on some diagrams are at least two 8-inch outfalls that appear to originate in two different upgradient areas. How will these be investigated in the SS?

42. Appendix B. A number of the comments above also apply to similar passages in the Data Quality Objectives (DQOs) in Appendix B and will not be repeated. An example is the Navy's proposed application of facility background data. SAPL feels that if a parameter exceeds screening criteria, regardless of background data it should be evaluated for further action

43. Appendix D, Page 12, SAPL Comment 3. The Navy's response states that samples to support the site screening will be analyzed for Target Compound List (TCL) organics and Target Analyte List (TAL) metals. The response should also state that samples will be analyzed for dioxins and cyanide.

44. Appendix D, Page 13, SAPL Comment 7. The Navy's response states that soil samples will not be analyzed for dioxins and cyanide unless the compounds are present in the ash at levels exceeding background and residential screening levels. As stated in Comment Number 28, above, if either or both of these compounds are detected in the ash, regardless of concentration, potentially affected media (soil, groundwater, and sediment) must also be analyzed to confirm contaminants have not migrated and there have been no adverse impacts.

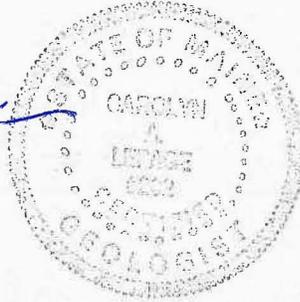
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October 19, 2002
Draft Site 34 QAPP

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
Mike Barry, USEPA

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