

# Lepage Environmental Services, Inc.

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June 23, 1997

Peter Vandermark  
Seacoast Anti-Pollution League  
P. O. Box 1136  
Portsmouth, New Hampshire 03802

Subject: Review Comments, *Work Plan, Building 184, (Site 30), West Timber Basin (Site 31), and Topeka Pier (Site 32)*

Dear Mr. Vandermark:

As you requested, we are transmitting comments to the Seacoast Anti-Pollution League (SAPL) concerning the May 1997 document, *Work Plan, Building 184, (Site 30), West Timber Basin (Site 31), and Topeka Pier (Site 32)* (the work plan). The report was prepared by Brown & Root Environmental to outline requirements and describe the procedures for performing investigations at Building 184, (Site 30), West Timber Basin (Site 31), and Topeka Pier (Site 32). The purpose of the investigations is to provide additional information to characterize the nature and extent of contamination at the sites in order to make decisions concerning the need for possible future actions.

Significant portions of the work plan are the same as the text of the March 1997 *Draft Work Plan, Teepee Incinerator (Site 29) and Building 238 (Site 10)*, which we commented on in April. Therefore, many of the comments and questions below are a repetition of comments in our April 23<sup>rd</sup> letter to you.

1. Page 1-3, Section 1.3.2. What is the role of the hydrogeologist/geologist listed in Section 1.3.2? Is the Health and Safety specialist the same as the site safety officer described further down on the page? If not, what is the role of the specialist? Where do the Maine Certified Geologist (Section 14.4) and the equipment manager (Section 13) fit within the team? Will the Field Operations Leader also be responsible for making sure the tasks other than sampling are performed according to the final Work Plan?
2. Page 3-3, Section 3.1.1. The last paragraph in the section mentions acid and caustic solutions, as well as flux as chemicals used in cleaning operations similar to those conducted at Building 184. Other potential chemicals or constituents of concern should also be mentioned. For instance, the historical information presented at the November 7, 1996, Restoration Advisory Board (RAB) meeting included alcohol, freon, and acetone. It is not clear if solvents were utilized during the Clean Room activities in the 1950s, or what metals may be of concern at the

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site. In addition, there is no mention of floor drains or of sand blasting activities. Where was the sand blast grit disposed of?

3. Page 3-3, Section 3.1.2. The crystalline substance is described as being noticed in 1973 and 1994, and sampled again in Round 8. However, it is not clear where the material came from and how it relates to specific activities and materials. An explanation would be helpful.

4. Page 3-3, Section 3.1.2. Based on the ground water flow direction presented in the November 1995 RCRA Facilities Investigation (RFI) Data Gap Report, it does not appear that the monitoring well proposed for the east side of Building 184 will detect potential contamination. Furthermore, because of the visual signs of contamination inside the building (the crystalline material in comment 3), it would be desirable to install a well inside the building to characterize the source.

5. Page 3-3, Section 3.1.2. How will the potential for contamination in bedrock be evaluated?

6. Page 3-5, Table 3-1. Cyanide is listed as a parameter for the other two sites covered in the work plan. Is it an appropriate parameter for analysis at Building 184?

7. Page 3-6, Section 3.1.3. The sampling of the crystalline material is mentioned on page 4-7, but is not included in the field activities to be performed at Building 184.

8. Page 3-6, Section 3.1.3. What are the criteria for selecting the depth intervals to be sampled during soil boring at Building 184? Wouldn't the 0-1 foot interval be considered surface soil sampling? What is the anticipated depth of the groundwater table and why will the sampling end there? Will a well that reaches only to the water table be sufficient to detect contamination? Is there a need to sample at greater depths (see comment 5 above)?

9. Page 3-6, Section 3.1.3. How was the background sample location selected? What is the potential for deposition of contaminants from other sources, including airborne contaminants, at the background sample location?

10. Page 3-6, Section 3.2.1. The background information on the West Timber Basin is not sufficient to understand what the potential contaminants at the site are. For example, were any chemicals used to season the wood? What chemicals were used in the pickling tanks and the metal washing? What metals might be of concern? In addition, the May 1996 *Industrial History* of the site mentions that material that couldn't be burned in the incinerator was dumped at the West Timber Basin. What are the potential contaminants in that material?

11. Page 3-8, Section 3.2.2. How was the background sample location selected? Is it an appropriate location for providing background soil data for the fill? What is the potential for

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contamination from other sources (including airborne contaminants) at the background sample location?

12. **Page 3-8, Sections 3.2.2 and 3.2.3.** The lists of parameters soil and groundwater samples will be analyzed for in these two sections should be consistent with the summary in Table 3-2.

13. **Page 3-8, Section 3.2.3.** What are the criteria for selecting the depth intervals to be sampled during soil boring at the West Timber Basin? At the other two sites covered in the work plan, the first interval of sampling is 0-1 foot, while the first interval at this site is 1-3 feet. Why the difference? It appears that the deepest interval to be sampled is 20 feet bgs (below ground surface) as it is anticipated that the fill is 20 feet thick. It would be appropriate to continue boring through the bottom of the fill to confirm the thickness and provide information on the nature of the fill. The material below the fill should be sampled as well. There are two soil borings proposed for the center of the basin. Monitoring wells at these two locations would provide information on concentrations and water levels well within the basin.

14. **Page 3-8, Section 3.2.3.** How will the potential for contamination in the underlying natural material or bedrock be evaluated?

15. **Page 3-11, Section 3.3.1.** The background section should also include some of the other activities mentioned in the May 1996 *Industrial History* that might cause contamination at Topeka Pier. These include the storage of paints, oils and other combustibles, underground gasoline storage tanks, and vehicle maintenance facilities. In addition, the report mentioned the disposal of cans and drums, and a cesspool receiving wastes from the combustibles storage building. Information presented at the November 1996 RAB meeting indicated wastes generated or disposed on site also included cyanide, sulfuric acid, sodium hydroxide, as well as cinders and materials that wouldn't burn in the incinerator.

16. **Page 3-11, Section 3.3.2.** The sampling rationale focuses on the buildings in the area, as well as the potential for discharge along the shore. The sampling must also evaluate the potential contamination associated with the fill material itself, as well as other potential sources, such as the cesspool associated with Building 98. In addition, one sample does not seem adequate for evaluating the contamination associated with a building.

17. **Page 3-15, Table 3-3.** One surface sample will not be sufficient to determine the presence or absence of PCBs at Building 306. Additional sampling must be performed.

18. **Pages 3-19 & 3-20, Section 3.3.2 and Figure 3-7.** Several seeps are shown on Figure 3-7, but not all seeps shown will be sampled in the future. What is the basis for determining which seeps are sampled?

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**19. Page 3-19, Section 3.3.3.** What are the criteria for selecting the depth intervals to be sampled during soil boring at the Topeka Pier Area? Wouldn't the 0-1 foot interval be considered surface soil sampling? What is the anticipated depth of the groundwater table and why will the sampling end there? Will a well that reaches only to the water table be sufficient to detect contamination?

**20. Page 3-19, Section 3.3.3.** How will the potential for contamination in the underlying natural material or bedrock be evaluated?

**21. Page 3-21, Table 3-4.** The waste sample has not been clearly defined in the text (see comment 7 above). It also appears that soil samples collected in the 0-1 foot interval are not included in the surface soil sample tally.

**22. Page 4-1, Section 4.1.2.** Who will be responsible for notifying Dig Safe?

**23. Page 4-1, Section 4.1.2.** Will the soil samples be screened with a PID (photoionization detector)?

**24. Page 4-2, Section 4.1.2.** The description of information for, and example of, the boring log is in SOP (Standard Operating Procedure) GH-1.5.

**25. Page 4-3, Section 4.1.3.** The well should be constructed of schedule 40 (at a minimum) PVC. What is the justification for specifying a 0.020-inch screen (versus 0.010-inch or other size) at this location? SOP GH-2.8 indicates filter pack material should be Standard Sieve size no. 10-20 for the 0.020-inch slot size, and that cement-bentonite should be used to fill the annular space from the bentonite seal to the ground surface.

**26. Page 4-3, Section 4.1.3.** Will contact with saline or very acidic or alkaline groundwater jeopardize the integrity of the cement-bentonite?

**27. Page 4-5, Section 4.1.4.** How will the tide's influence on groundwater levels in the monitoring wells be determined?

**28. Page 4-5, Section 4.1.4.** It appears that a new monitoring well could be sampled within about 24 hours of completion of well development. More time (on the order of several days at a minimum) should elapse between well developing and groundwater sampling.

**29. Page 4-6, Section 4.1.4.** Filtered inorganic samples are mentioned in the fourth paragraph, as well as elsewhere in the text. If the sampling is conducted using low-flow methods, under what circumstances would samples require filtering?

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30. **Page 4-7, Section 4.1.5.** The crystalline substance sample in Building 184 is mentioned in the section on surveying, but the sampling method for collecting the material is not described in previous or subsequent sections. Details of the sampling method must be provided.
31. **Page 4-9, Section 4.4.** What is the source of the water that will be used to decontaminate major equipment and well materials?
32. **Page 4-10, Section 4.4.3.** This section lists steps to be conducted when decontaminating nondedicated equipment. An isopropyl rinse is mentioned on page A-38, and acetone, methanol, isopropyl and hexane are included as rinses in SOP SA-7.1 which is also referenced in this section. The text should clearly and consistently state the steps and materials to be used during decontamination.
33. **Page 4-11, Section 4.5.** What will the major and sampling equipment decontamination fluids be tested for? Given the concerns for metals and other non-volatile contaminants at the sites, how will soil cuttings be field screened to determine contamination? What happens to the purge and development water once analytical results are received?
34. **Page 6-3+, Section 6.3.** The temperature blank mentioned on page 7-2 should also be described in this section. The description of the field blank on page 6-4 sounds more like a decontamination blank (like the rinsate blank in Section 6.3.2). Field blanks are often samples of analyte-free water poured into sample containers in the field to check for possible contamination caused by field conditions (dust, vapors, etc.). Has this type of blank been considered?
35. **Page 7-1, Section 7.1.** The chain of custody form should include the date the sample was collected.
36. **Page 7-3, Section 7.4.** The text mentions that the EPA and MEDEP will be consulted by the Navy should there be major scope changes. Presumably there could be instances where concurrence by the regulatory agencies would also be required. How will changes in the work scope be communicated to the RAB members and other interested parties? This comment also applies to Section 15.
37. **Pages 10-1 & 10-2, Section 10.0.** What is the basis for deciding which firm will review the analytical data packages? Has that decision been made? At the top of the second page, the statement is made that if the validity of the entire data package is in question, it may be necessary to reanalyze samples. It may be necessary to resample. How will the results of the data validation be communicated to the RAB?
38. **Page 11-1, Section 11.0.** Enough trip blanks should be prepared to supply one per cooler containing volatile organics, as stated in Section 6.3.4 on page 6-5.

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39. **Page 12-1, Section 12.0.** Who checks performance with regard to health and safety issues, including compliance with the Health and Safety Plan (HASP)? How often are system audits conducted? What triggers a systems audit? Is a systems audit different from a formal audit? *If not, the text should be clarified. If the audits are different, additional information should be provided concerning the formal audit, such as who performs the audit, how often, what triggers the audit, etc.*

40. **Pages 14-1 & 14-8, Sections 14.0 & 14.4.** In addition to identifying whether data needs have been met and if there is a need for additional work, the data reporting should also present the data and other information related to the investigation (page 14-1). The specific components listed on page 14-8 should include any deviations or changes from the final work plan, and well as interpretation of the hydrogeologic and chemical data.

41. **Page 14-11, Section 14.4.** The last paragraph on the page seems to indicate the Maine Certified Geologist is only involved with the review of the report once the field work has been completed and the data compiled and interpreted. The Maine Certified Geologist should be in responsible charge of geologic aspects of the investigation on an on-going basis, not at the end when all the work is completed and the investigation has ended. Please clarify.

42. **Page A-3, Section 1.3.** The HASP is intended to be a stand-alone document and may provide the only written background information some site workers and subcontractors may see. Therefore, this section should be expanded to more completely describe past activities at the West Timber Basin and the Topeka Pier area to provide a framework for understanding potential hazards. For example, landfilling of materials that wouldn't burn in the West Timber Basin and the underground gasoline storage tanks, vehicle maintenance activities, disposal of cans and drums and possible disposal of paints, oils, and other combustibles in the Building 98 cesspool at the Topeka Pier area would present a more complete picture of potential hazards.

43. **Page A-8+, Section 3.0.** How will the potential for site worker exposure to radiological hazards be determined? How will the three sites be monitored?

44. **Page A-8, Section 3.1.** Dioxins are included in the list of potential contaminants, but have not been mentioned in previous sections of the text. Is dioxin a possible contaminant at any of the three sites? Asbestos is not mentioned in this section or in Table 3-1. Given the nature of filling activities at the sites, shouldn't asbestos be included in the hazard assessment?

45. **Page A-38, Section 6.3.** The decontamination procedures described in the HASP should be consistent with those specified in the work plan. For example, only steam cleaning is mentioned in the text, but the HASP mentions high-pressure washing. In addition, the HASP specifies that all decon water will be collected and disposed of as hazardous waste. We are unaware of a similar passage in the text portion of the work plan. See comment 33 above as well.

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46. Pages A-54 & A-59, Sections 11.5 & 12.6. The MEDEP Emergency Response number, as well as the names and numbers of the MEDEP and EPA project managers, should be included as contacts for the spill control plan and in Table 12-1.

**General Comment.** With all the acronyms being used in this document, it would be helpful to have a glossary. Once created, it could be used as "boilerplate" in other documents.

As we noted in our April 23<sup>rd</sup> letter, we have not conducted an in-depth review of all the SOPs referred to in the work plan, and may have additional comments or questions in the future. 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: Iver McLeod, DEP  
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