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LETTER AND COMMENTS REGARDING DRAFT WORK PLAN FOR TEEPEE INCINERATOR  
AND BUILDING 238 NSY PORTSMOUTH ME  
4/23/1997  
LEPAGE ENVIRONMENTAL SERVICES

# Lepage Environmental Services, Inc.

P. O. Box 1185 • Auburn, Maine 04211-1185 • 207-777-1049 • Fax: 207-777-1370

April 23, 1997

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

Subject: Review Comments, *Draft Work Plan, Teepee Incinerator (Site 29) and Building 238 (Site 10)*

Dear Mr. Vandermark:

As you requested, we are transmitting comments to the Seacoast Anti-Pollution League (SAPL) concerning the March 1997 document *Draft Work Plan Teepee Incinerator (Site 29) and Building 238 (Site 10)* (the work plan). The report was prepared by Brown & Root Environmental to outline requirements and describe the procedures for performing investigations at the DRMO (Defense Reutilization and Marketing Office) Teepee Incinerator (Site 29) and Building 238 (Site 10). The purpose of the investigations is to provide additional information to further characterize the sites in order to make decisions concerning remediation.

Both sites had been the subject of earlier investigations. However, new information indicates the piping beneath Building 238, in addition to the underground acid storage tank, may have leaked. The additional work is needed at Site 29 because sampling for dioxin was not performed where open burning had occurred in the past, or at the teepee incinerator location. Our comments and questions are as follows:

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 on the following 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. Pages 2-6 - 2-8, Section 2.2.1. What sort of material was burned or otherwise disposed of at Site 29 beginning in 1918? Was it representative of the entire waste stream produced at the Shipyard, or is there documentation that the wastes were more limited? How complete is the understanding of site activities at the teepee incinerator and open burning area? Are there photographs and/or other historic information available? Where was the ash disposed of once burning began in 1918? What was source of the ash in the "ash disposal area" shown on Figure 2-3 and subsequent figures?

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**3. Page 3-1, Section 3.0.** Reference citations for the historical reports used as primary sources of information should be provided and the reports listed in the References section.

**4. Page 3-1, Section 3.1.1.** 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 existing monitoring wells at the DRMO are directly down gradient of the teepee incinerator. The RFI Data Gap Report also indicates there is limited data to support interpretations of the deeper ground water flow. Information presented during the October 19, 1996, site tour indicated soil was contaminated by lead to a depth of at least 38 feet below the ground surface. Therefore, it is possible that an additional monitoring well or wells may be necessary to further define the horizontal or vertical limits of site-related contamination in ground water.

**5. Page 3-6, Section 3.1.2.** The text in this section states that one monitoring well will be installed at Site 10. The Health and Safety Plan (HASP) in Appendix A (see page A-4) mentions a second well that will be installed. The report should be made internally consistent. But a larger issue is the minimum number of monitoring wells/piezometers necessary to understand ground water flow direction. Will the installation of only one or two wells be sufficient? In addition, what affect did the acid leaked from the tank have on the mobility of potential contaminants, such as metals?

**6. Pages 3-6 & 3-9, Section 3.2.** What are the criteria for selecting the depth intervals to be sampled during soil boring at Site 29? The deepest interval is 10-12 feet. Is there a need to sample at greater depths (see comment 4 above)?

The background soil sample locations are listed in the text on page 3-9 as BGS-02, BGS-19, and BGS-22. However, Figure 4-2 on page 4-7, and Section 4.1.5 on page 4-6 state the background dioxin samples will be collected at BGS-02, BGS-24, and BGS-25. The report must be internally consistent. In addition, how were the background sample locations selected? What is the potential for deposition of contaminants, including airborne contaminants, at the background sample locations?

Why is the monitoring well at Site 10 only extending to the water table? Our recollection is that the tank leak occurred at the bottom of the tank, and that liquid levels in the tank fluctuated with the tide. Will a well that reaches only to the water table be sufficient to detect contamination?

**7. Page 4-1, Section 4.1.1.** The table should be revised to reflect that 3 borings will be drilled in natural material. The following page states that soil samples at Site 10 will be screened with a PID (photoionization detector). Why aren't the soils at Site 29 being screened with a PID?

**8. Page 4-2, Section 4.1.2.** 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?

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9. Page 4-3, Section 4.1.3. It appears that the 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 ground water sampling.

10. Page 4-6, Section 4.1.4. The paragraph is a bit confusing with regard to the timing of observation of the pipes and collection of the soil samples. Perhaps the word "then" should be removed from the fifth sentence and added to the sixth.

11. Page 4-10, Section 4.4.1. What is the source of the water that will be used to steam clean downhole equipment?

12. Page 4-10, Section 4.4.2. This section lists steps to be conducted when decontaminating nondedicated equipment. An isopropyl rinse is mentioned on page A-36, and acetone, methanol, isopropyl and hexane are included as rinses in SOP SF-2.3 which is also referenced in this section. The text should clearly and consistently state the steps and materials to be used during decontamination.

13. Page 4-11, Section 4.5. What will the drill rig 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 water once analytical results are received?

14. 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?

15. Page 7-1, Section 7.1. The chain of custody form should include the date the sample was collected.

16. 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 Restoration Advisory Board (RAB) members and other interested parties? This comment also applies to Section 15.

17. 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 bottom of the 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?

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**18. 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.

**19. 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.

**20. Pages 14-1 & 14-7, 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 14-7 should include any deviations or changes from the final work plan, and well as interpretation of the hydrogeologic and chemical data.

**21. Page 14-7, 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.

**22. 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 two sites to provide a framework for understanding potential hazards. For example, open burning of wastes reportedly began around 1918 at Site 29, which also includes an ash disposal area, and that a leaking underground acid storage tank was removed at Site 10.

**23. Page A-6+, Section 3.0.** How will the potential for site worker exposure to radiological hazards be determined? How will the two sites be monitored?

**24. Page A-11, Section 3.1.** What is the basis for stating in the first paragraph that an initial evaluation showed no evidence of extensive contamination at Site 10. Was there confirmation sampling when the tank was removed? Will there be any engineering controls to minimize dust and mobilization of particulates at Site 29?

**25. Page A-20, Section 3.3.** The physical hazards listed should also include those associated with drilling and other equipment (see Section 3.4).

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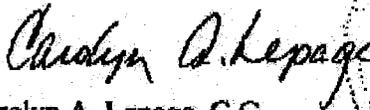
**26. Page A-36, Section 7.3.** The decontamination procedures described in the HASP should be consistent with those specified in the work plan. For example, only steam cleaning is mentioned in the text, but the HASP mentions high-pressure washing. In addition, the HASP specifies that all decon water 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 12 above as well.

**27. Pages A-52 & A-57, Sections 12.5 & 13.6.** The MEDEP Emergency Response number, as well as the MEDEP and EPA project managers, should be included as contacts for the spill control plan and in Table 12-1.

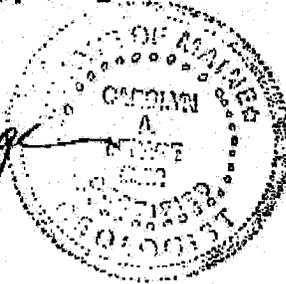
**General Comment.** With all the acronyms being used in this document, it would be helpful to have a glossary. Once created, it could be used as "boilerplate" in other documents.

Please note 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, C.G.  
President



cc: Iver McLeod, DEP  
Meghan Cassidy, EPA