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Lepage Environmental Services, Inc.

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April 3, 1997
File #102

Ms. Loukie Lofchie
Brunswick Area Citizens for a Safe Environment
P. O. Box 245
Brunswick, ME 04011

Subject: Review of the March 1997 *Draft Record of Decision for a Remedial Action at Sites 4, 11, and 13*

Dear Ms. Lofchie:

As requested by the Brunswick Area Citizens for a Safe Environment (BACSE), Lepage Environmental Services, Inc., as a consultant to Robert G. Gerber, Inc., has reviewed the *Draft Record of Decision for a Remedial Action at Sites 4, 11, and 13* dated March 1997. The document was prepared by ABB Environmental Services, Inc., (ABB-ES) for the U. S. Department of the Navy for the Naval Air Station Brunswick (NAS Brunswick) located in Brunswick, Maine. In the subject document, the Navy presents the final remedial action selected for long term measures for soil and ground water at Sites 4, 11, and 13.

All three sites are located within several hundred feet of each other. Site 4 is the Acid/Caustic Pit located under the eastern end of building 584 that was used for the disposal of liquid wastes between 1969 and 1974. Site 11 was used for about 30 years as a Fire Training Area. Waste liquids, including fuels, oils, and degreasing solvents were burned during fire training exercises at the site. Site 13 included three underground storage tanks that were used to store diesel fuel and waste fuels, oils, and degreasing solvents. The tanks were removed in the 1980s.

The Navy concluded, based on environmental investigations that began in 1988, that Site 11 was the primary source of ground water contamination in the Eastern Plume, and that Sites 4 and 13 are no longer contributing to ground water contamination in the Eastern Plume. In the subject document, the Navy states there will be no further action for soils at Sites 4, 11, and 13, but that remediation and long term monitoring of contaminated ground water in the Eastern Plume will continue. The Navy will also be adding wells to the monitoring program to further investigate ground water contamination in the vicinity of Sites 4, 11, and 13, and will consider the need for additional investigation at Building 584 should it be demolished in the future.

BACSE provided oral comments at the public meeting held on October 17, 1996, on the *Sites 4, 11, 13 Proposed Plan*. The *Proposed Plan* presented the Navy's preferred option for long term measures for soil and ground water at Sites 4, 11, and 13. Following a brief review, our comments on the *Draft Record of Decision* are as follows:

1. **Pages 1, 17 & 56.** The text should reflect that the no action decision relates to the soils at Sites 4, 11, and 13. The Navy is proposing to add wells in the vicinity of Sites 4, 11, and 13. Additional wells that are properly situated should help determine if Sites 4 and 13 are no longer contributing ground water contamination to the Eastern Plume, and that the remaining contaminants at Site 11 do not pose a risk.
2. **Page 2.** At the bottom of the page, the Navy states that the risk to human health and the environment will be addressed by continued operation of the ground water remedy outlined in the June 1992 *Eastern Plume Record of Decision* (ROD). The text should reflect that the Navy has also proposed adding more wells to the monitoring network and will assess the need for additional investigations at Site 4 should Building 584 be demolished.
3. **Page 3.** In addition to extraction, treatment and discharge, the selected final remedy for the Eastern Plume also includes long term monitoring with evaluation of the remedial action at least every five years.
4. **Pages 9 & 11.** After the three underground storage tanks were removed at Site 13, a single fiberglass tank was installed for storing diesel fuel. The text should be revised.
5. **Page 9.** The paragraph regarding receptors should be revised. Based on the Navy's current interpretation of ground water flow direction in the Eastern Plume, there appear to be no human receptors. However, in the *Proposed Plan*, the Navy stated additional investigations are planned near the eastern boundary of the plume to verify ground water is not flowing toward the residential area east of the base. Humans may be also affected if they ingest or otherwise come in contact with any adversely affected ecological receptors should the plume discharge to Harpswell Cove.
6. **Page 10.** The second paragraph should be amended to reflect that no sampling was conducted beneath Building 584 and that the Navy will evaluate the need for additional investigations at Site 4 should the building be demolished.
7. **Pages 11, 17 & 48.** The Navy did remove contaminated soils from Site 11. However, given the nature of the contamination that has been documented at the site, contaminated soil remains at Site 11. The results of the long term monitoring program, assuming an adequate number of appropriately located monitoring wells, should indicate if the remaining contaminated soil continues to have an adverse impact on ground water quality and if further action at Site 11 might be warranted.

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8. **Page 14.** The last sentence on the page seems to indicate the July 1992 Interim ROD was implemented solely because the Eastern Plume had been identified as a distinct area of contamination. The paragraph should include some mention of the objectives outlined on page 37, which include containment of the plume to prevent its discharge to Harpswell Cove.
9. **Pages 15 & 16.** With regard to citizen involvement since the beginning of the IRP (Installation Restoration Program), we are uncertain how active and involved the community was between 1983 when the Initial Assessment Study was performed and 1988 when the TRC (Technical Review Committee) was formed. It appears that, without a regular forum like the TRC and its successor, the Restoration Advisory Board (RAB), the opportunities for citizen-Navy discussion were few and far between. Therefore, we question the opening statement of Section III, that the community has been active and involved throughout the sites' investigative and remediation history.
10. **Page 16 and Appendices A & D.** The Navy states that no verbal comments were received at the public hearing on October 17, 1996. However, as the meeting transcript in Appendix D shows, several citizens asked questions or voiced concerns that the Navy responded to. BACSE's comments were presented by Susan Weddle and are recorded on pages 26 through 31 of the transcript. The text should be revised, where appropriate, to indicate that members of the public did present comments. In addition, the Navy should prepare a Responsiveness Summary as specified on page one of the *Proposed Plan*.
12. **Page 21.** The paragraph concerning ground water contamination at Site 4 should be revised to include reference to the need for additional monitoring wells at Site 4, as discussed at RAB meetings.
13. **Page 27.** With regard to characterization of lateral boundaries of the plume, see comment 5 above. It would also be appropriate to briefly describe when the contaminated ground water has been predicted to discharge to Harpswell Cove and the basis for that prediction.
14. **Page 34.** The second and third sentences of the paragraph under the ecological risk assessment heading are confusing because of the term "routes of exposure" in the second sentence. Routes implies avenues or pathways along which contamination could migrate. In order for the third sentence to be true, these avenues or routes must exist (regardless if contamination is traveling along them), but the second sentence says they do not. Some revision or clarification would be helpful.
15. **Page 39.** At the end of the first paragraph, the statement is made that changes to the interim remedial action would be made if monitoring results determine hydraulic capture of the plume has not occurred. However, the Navy has already indicated additional monitoring wells will be installed to increase coverage in the Sites 4, 11, and 13 area. The additional investigation mentioned in comment 5 above may also result in the installation and sampling of more wells. Some of these changes to the monitoring program may have more to do with characterization of the plume (at least initially) than with documenting hydraulic capture of the plume. On the other hand, it is conceivable that changes

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(reductions) could be made to the program if it can be demonstrated that some portions of the plume have been adequately remediated.

16. **Page 40.** The use of the term reinjection implies that injection as occurred at least once already and that the water will be (re)introduced to the subsurface via a well or wells. Based on discussions at RAB meetings, infiltration may be a more appropriate term.

17. **Pages 45 & 50.** The costs have not been provided in Section G, so we are unable to provide a specific comment. However, how will the figures compare with the \$6.8 million mentioned on page 50?

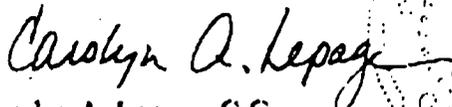
18. **Page 46.** As described in comment 10 above, we disagree with statements in other parts of the document concerning the lack of oral public comments at the October 17, 1996, public meeting. Community members and BACSE expressed concerns about a variety of issues, including the additional monitoring wells, the potential impact on nearby residential wells, the possibility of contamination discharging to Harpswell Cove, the need for additional investigations at Site 4, and alternative means of discharge of the treated ground water. The Navy needs to respond to these in the Responsiveness Summary and revise portions of the document appropriately.

19. **Page 49.** The second paragraph in Section C should be revised to include wording similar to the *Proposed Plan*, that at least every five years, the Navy will perform a thorough review of the progress of the remedial action.

20. Will deed restrictions, installation of signs and/or protective fencing, or other measures be implemented at Sites 4, 11, and 13?

We would be happy to answer any questions you might have. Please do not hesitate to give us a call.

Sincerely,
Lepage Environmental Services, Inc.



Carolyn A. Lepage, C.G.
President



cc: Andrews J. Tolman, Robert G. Gerber, Inc.