



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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May 14, 1999

ANGUS S. KING, JR.

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GOVERNOR

COMMISSIONER

Mr. Emil Klawitter
Code 1823 EK
Department of the Navy, Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop 82
Lester, PA 19113-2090

Re: Draft Proposed Remedial Action Plan for Site 9

Dear Mr. Klawitter:

The Department of Environmental Protection (DEP or Department) has reviewed the Draft Proposed Remedial Action Plan (PRAP) for Site 9, dated May 1999 (April 23, 1999 version). Based on that review the Department has the following comments and issues.

General comments:

- 3 1. In the technical meeting (February 01, 1999) the Navy agreed to all DEP previous changes to the Site 9 PRAP. It is disappointing to find that a number of the changes were not made.
- ED 2. The term groundwater throughout the document is written ground-water and ground water depending on whether the word is a noun or adjective. A hyphenated word is used when two words still in the process of becoming one word. The Department suggests making it one word (groundwater) since the inconsistency (although grammatically correct) may be confusing to the public.
- ED 3. The proliferation of boldface type, which designate technical language defined in the Glossary, is distracting and may be misinterpreted as emphasis. Please consider boldfacing a word only the first time that it appears in this PRAP.
- ED 4. Somewhere in the PRAP the connection between the drinking water standards and Maximum Contaminant Level (MCL) and Maximum Exposure Guideline (MEG) needs to be made. These terms are used interchangeable in the document and may be confusing to the public. It may be simpler to use the terms MCL and MEG then define them in the glossary.

Specific comments:

- ED 5. Page 2, Figure 1, site map:
 - ED • Sample Locations would be better called "*Groundwater Long-Term Monitoring Locations.*"
 - ED • A symbol for the LT-901 seep location is needed. The symbol must be added to the legend.
 - ED • Expand the site boundary to include the Old Incinerator since it was included as part of the investigation or be sure that it is clear in the PRAP why it is not included.
 - ED • Since the unnamed stream is mentioned in the PRAP it needs to be shown on the map. Please extend the unnamed stream from the downstream dam to the border of the page, and label with an arrow as "*Unnamed Stream.*"

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- ED • Inactive monitoring wells from the past groundwater monitoring should be added to the map, and be shown as a different symbol. (DEP suggests a solid circle for active wells and an open circle for inactive wells.) By showing all wells within the extent of this figure, the public will realize that upgradient and downgradient areas have been characterized, and these data have been used to delineate the boundary of Site 9 (as shown).
- ED • The boundary of Site 9 is not a box, and needs to be represented in the legend as it appears on the map. The line weight needs to be increased.
- ED • It is unclear exactly what the boundary of Site 9 encompasses. Is it the boundary of the site investigation; or the boundary of the area to be placed under institutional control? This needs to be stated clearly on the map. DEP recommends the extent of the site investigation.
- ED • The southeast boundary of Site 9 needs to be added to the map.

6. Page 3, Proposed Remedial Action, bullet 4:

“Extensive investigations have not identified a source of vinyl chloride in ground water.”

ED To more accurately reflect this situation, please modify this as follows: “*Extensive investigations have not identified the source responsible for vinyl chloride in Site 9 groundwater.*”

7. Page 3, Proposed Remedial Action, bullet 5:

✓ In light of Figure 3-9 of the 1998 Annual Report, is the true trend of vinyl chloride concentration site-wide being presented? This figure shows that total Site 9 vinyl chloride concentration line (least-mean square regression?) is gradually rising over time. The same rising trend appears for 1,2 – dichloroethene, another degradation compound of TCE. The Annual Report is still in draft form, and may undergo changes. However, the Navy should consider if this report and the PRAP are presenting the same trend information, and that the PRAP should be based on the data evaluation within the 1998 Annual Report and updated as necessary.

8. Page 3, 2nd column, 3rd para:

“Based upon the new information or Public comments, the preferred alternative presented in this Proposed Plan can be modified or a different alternative can be selected.”

✓ The public is encouraged to provide comments, but the mechanism by which these comments are considered is undefined. It is our concern that the public will not receive full answers in time to react until they read the ROD. DEP recommends that the first sentence in the last paragraph of this section should be amended to read: “*Upon review and consideration of public comments, the Navy and EPA will issue a final remedy choice in a signed Record of Decision document with expected concurrence by MEDEP.*”

9. Page 4, Unnamed Streams, para 2:

ED The correct title for the interim rod is Interim Record of Decision for Groundwater Operable Unit at Site 9. This needs to be corrected in the reference section also.

10. Page 4, Unnamed Streams, para 3:

ED The word *the* is repeated in the next to last sentence.

11. Page 4, Unnamed Streams, para 2 and 3:

BD The second and third paragraphs under Unnamed Streams do not relate to that heading. New headings, such as *Long Term Monitoring Plan* and *Future Events*, need to be inserted.

12. Page 4, Remedial Investigation (E.C. Jordan 1990), para 3:

BD "Potential impacts to ecological receptors was estimated due to polycyclic aromatic hydrocarbons in the sediment directly behind Building 201, however, ..."

The following language is suggested: "Because polycyclic aromatic hydrocarbons were present in sediment near Building 201, the potential impact to ecological receptors was estimated. However, ..."

13. Page 5, Technical Memorandum, para 1:

BD Please modify as follows: "Field investigations were performed in 1993 to further characterize the inactive landfill and provide information to support *possible* remedial action and *continued* groundwater monitoring."

14. Page 6, Long-Term Monitoring Plan, para 2:

BD See comment 7 above.

15. Page 6, Long Term Monitoring Plan, para 4, bullet 1 & 2:

BD "The Long-Term Monitoring Plan will be revised based on the results of the analytical samples and following goals: ..."

DEP recommends the following language: *The revised Long Term Monitoring Plan will be reviewed and approved by EPA and DEP in consultation with the Restoration Advisory Board and the public.*

Also the goals should include the following:

- ✓
- *Monitor changes in groundwater, surface water, and sediment related to Site 9;*
 - *Monitor changes in the plume boundaries and potential migration pathways;*
 - *Monitor effectiveness of the remedial action for the protection of human health and the environment.*

16. Page 6, Risk Evaluations, para 2:

✓ "Laboratory results of the Long-Term Monitoring Plan have not detected vinyl chloride in the surface water of the north and south branches of the unnamed stream."

Vinyl chloride was detected in the north branch water at SW-010 in the Event 11 sample at 1.0 µg/L and in the Event 12 sample at 0.6 µg/L. Please correct this statement.

17. Page 6, Risk Evaluations, 2nd column, para 1:

"Additionally, the vinyl chloride concentrations in ground water have been decreasing at some location, however, 3 monitoring locations have exceeded the Federal drinking water standard of 2.0 parts per billion."

Both the Federal and State drinking water standards have been linked in numerous places in this document and it seems out of place to remove it here. Please put the reference to the State drinking water standard back into this sentence.

18. Page 7, Alternative 2, Inactive Ash Landfill, entire paragraph:

a.) According to earlier information, (page 4) there is no precise information concerning the types of wastes handled or disposed in this land fill and may have included solvents, paint sludges and possible Metal Shop wastes. Based on this information, the Navy should not limit the content of the landfill to just ash but must acknowledge the possibility of other unknown wastes. At this time the DEP is not willing to agree to monitoring for just inorganics from the ash landfill.

b.) "Ground water downgradient of the inactive landfill will be monitored for inorganics to assess whether impacted ground water has the potential to impact ground water or surface water."

With respect to ground water, this statement does not make sense. It would appear that it should be rewritten similar to: *"Ground water downgradient of the inactive landfill will be monitored to assess whether impacted ground water from the landfill is migrating downgradient and may cause a detrimental impact to surface water."*

19. Page 7, Ground-Water Contamination, 1st sentence:

"The natural attenuation with long-term monitoring alternative includes the use of natural biological and mechanical systems to degrade chemical contaminants."

To the lay person "mechanical systems" will likely imply an engineered solution. Please consider: *"The natural attenuation with long-term monitoring alternative involves reliance on natural flushing and dispersion processes to dilute, and in situ biological systems to degrade, chemical contaminants."*

20. Page 8, Ground-Water Contamination, 1st sentence:

"Surface water and sediment will continue to be monitored for volatile organic compound, to assess whether these media may be impacted by vinyl chloride in site ground water."

Vinyl chloride has reached the north unnamed stream (Events 11 and 12 detections), although not at concentrations of concern. (See comment 16 above.) Also DEP is not willing at this time to commit to what sampling just for vinyl chloride. Therefore, the PRAP statement should be rewritten similar to:

"Surface water and sediment will continue to be monitored to assess whether these media may be adversely impacted by groundwater from Site 9."

21. Page 8, Alternative 3:

Is the Navy still contemplating the concept of injecting treated ground water into the aquifer at BNAS?

22. Table 2, Comparative ranking of alternatives to nine CERCLA criteria:

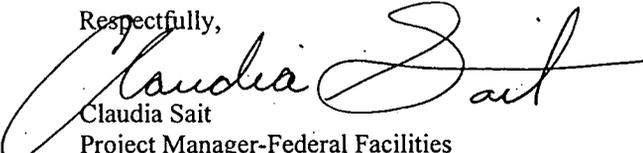
Under Alternative 3, the Department can not think of reasons why the "Protection of Human health and Environment" and "Implementability" rankings would not be good (instead of moderate) relative to the Natural Attenuation Alternative. The only real downside to Alternative 3 is increased cost. Please explain.

23. Page 11, References:

✓ The source investigation by ABB ES (1997) needs to be added to the list of references.

Thank you for the opportunity to review this report. If you have any questions or comments please call me at (207) 287-7713.

Respectfully,


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Bureau of Remediation & Waste Management

Cf: File

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