



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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Mr. Emil Klawitter (eeklawitter@efdnorth.navfac.navy.mil)  
Northern Division, Naval Facilities Engineering Command  
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10 Industrial Highway, Mailstop 82  
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Subject: *US EPA Comments to Draft Final Proposed Remedial Action Plan (PRAP) for Site 9 at Naval Air Station, Brunswick, Maine*

Dear Mr. Klawitter: *Emil*

We appreciate the significant effort by the Navy to resolve comments on the site 9 draft PRAP. Unfortunately the EPA has significant comments to the draft final PRAP. The focus of the PRAP upon the groundwater issues at site at the expense of the other media is the source of most of our comments.

- Since this is a final PRAP, all media at site 9 must be fully addressed even though the IROD focused on groundwater. This is complicated because of the long history, many investigations and non-CERCLA issues (base-wide runoff) at site 9.
- Risks and alternatives must be clearly identified by media because this site is so complicated.
- PAH's in soil and/or ash at depth in the ash landfill are especially problematic because of limited discussion in the FS. However, they must be addressed.
- The EPA still concurs with and supports the selected remedy of natural attenuation and institutional controls for site 9.
- We recommend a meeting to discuss our comments prior to the Navy's response. Perhaps this can be discussed at meetings scheduled for 20 and 21 January.
- Because of the amount and detail of EPA's comments, we recommend the Navy issue an additional "revised" draft final PRAP in strike out method (similar to the interim working draft issued on 8 October 1998).

Please note the new mailing address above. If you have any concerns, please contact me at 617-918-1344 or [barry.michael@epamail.epa.gov](mailto:barry.michael@epamail.epa.gov).

Sincerely,

Michael S. Barry, Remedial Project Manager  
Federal Superfund Facilities Section

Attachment

cc. Tony Williams/NASB (WilliamsA@nasb.navy.mil)  
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## General Comments

1. The main problem with the draft final Proposed Plan for Site 9 (Plan) is that it does not clearly explain and justify what the Navy proposes to do to address the contamination in each medium at the site. Because the primary purpose of a Proposed Plan is to educate the public and facilitate public participation in the remedy selection process, this is critical.

The Plan initially states that its purpose is to address the “groundwater, surface water, soil, and sediment contamination” at Site 9; however, it then consistently focuses on the vinyl chloride in the groundwater to the exclusion of the contaminants of concern (COCs) in the soil, sediment and surface water. As a result, the Plan does not either (a) provide an adequate basis for the Navy’s preferred remedial alternative for the soil at the site (i.e., institutional controls), or (b) identify the actions the Navy proposes to take to address the surface water and sediment contamination there (i.e., address them through the base NPDES permit). More particularly:

- a. From reading the Proposed Remedial Action section, which is the section the public is most likely to read (and which therefore should set the stage for the Plan), the reader would think Site 9 only has groundwater contamination and the Plan only addresses groundwater. This section must also summarize what the Navy proposes to do about the soil, surface water and sediment contamination at the site (see below).
- b. The Risk Evaluation section only addresses the risks posed by vinyl chloride in the groundwater at Site 9. It must also identify the primary COCs in the soil, sediment and surface water at the site and discuss (a) which of these COCs poses an unacceptable risk to human health and the environment, (b) what human or ecological receptors are at risk, (c) through what actual or potential exposure pathways, and (d) what the level of unacceptable risk is. This discussion is especially important with regard to the soil contamination in the inactive ash landfill area, given that the 1990 human health and ecological risk assessments did not address that contamination and the 1992 Feasibility Study did not evaluate source control alternatives for it.
- c. The absence of information on these key points is magnified in the Summary of Remedial Alternatives section, in which the Plan fails sufficiently to explain the bases for the remedial alternatives considered for Site 9. For example, given that the Risk Evaluation section does not indicate any unacceptable risks from the soil at the site, why does the Navy need to consider whether it should implement institutional controls to prevent soil excavation or excavate the inactive ash landfill? Why take action if there is no actual or potential risk? Or is there risk that the Plan does not explain to the reader? Also, the Plan should state that Alternatives 2 and 3 include a proposed No Further CERCLA Action for the

surface water and sediment at the site, and should explain that this is because the contamination in these media will be addressed under the base's NPDES permit (see Interim Final Guidance on Preparing Superfund Decision Documents, OSWER Directive 9355.3-02, Section 9.1.2 and Exhibit 9-3).

The Navy's Proposed Remedy section has the same problems as the Summary of Remedial Alternatives section.

2. Given that, as discussed above, the 1990 human health and ecological risk assessments did not address the soil contamination in the inactive ash landfill area and the 1992 Feasibility Study did not evaluate source control alternatives for it, what did the Navy do to develop the soil components of Alternatives 2 and 3? In particular, what human health and ecological risk assessments were performed that provided the basis for proposing these two different alternatives for addressing that contamination? In what document were the risk conclusions for the inactive ash landfill area presented? Moreover, how did the Navy document the development of the soil components of these alternatives? How did it document the comparative analysis of Alternatives 2 and 3 that led it to choose Alternative 2 as the preferred final remedial alternative (other than in Table 2 in the Plan)? In other words, what is in the Administrative Record for the public to review?
3. Many of the Specific Comments below are EPA comments on the draft Proposed Plan that the Navy did not resolve satisfactorily in this draft final Plan. EPA has also made additional comments, primarily asking the Navy to provide more information so that the Plan will conform to EPA guidance. See Interim Final Guidance on Preparing Superfund Decision Documents, OSWER Directive 9355.3-02.
4. The Plan does not appear to have been proofread for typographical and punctuation mistakes, e.g., on Page 1, in the Introduction section, ¶ 1, the second sentence should start "In accordance with Section 117(a)", not "In accordance with Section I 17(a)".

### **Specific Comments**

1. Page 1, Introduction, ¶ 2: Delete "will" between "(MEDEP)" and "provide".
2. Page 1, Introduction, ¶ 3: In the first sentence, the phrase "to safeguard against unexpected contaminant migration" is vague. It is suggested that this sentence be deleted and replaced with: "The Proposed Plan recommends groundwater remediation through natural attenuation with long-term monitoring, and implementation of institutional controls to address any threats posed by groundwater and soil at Site 9 ~~by preventing endangerment to public health, welfare, or the environment~~".
3. Page 1, Introduction, Second Bullet: Revise to read "Explain the preferred remedial alternative the Navy has proposed for Site 9".

4. Page 3, The Proposed Remedial Action:

- a. See General Comment No. 1.a.
- b. It is suggested that the introductory sentence be replaced with "The Navy's recommendation for natural attenuation with long-term monitoring and implementation of institutional controls is based upon the following: ...". This will focus the public's attention on the primary component of the proposed remedy, natural attenuation.
- c. In its Response to EPA Comments (Navy Response), the Navy stated that it would revise the fourth bullet, and proposed specific language for this revision; however, that proposed language is not in the draft final Plan. Please explain.
- d. EPA commented as follows on the paragraph about the interim ROD in this section: "In the paragraph discussing the requirements of the interim ROD, it would be useful here to explain the connection between the interim remedy and the preferred final remedial alternative ...". In response, the Navy substituted language about the protectiveness of the interim ROD's requirements. See Navy Response No. 3.f. This language alone is not a sufficient response to EPA's comment. Rather, the Plan must state clearly here that the interim remedy in place at Site 9 and the preferred final remedial alternative presented in this Plan for groundwater are essentially the same. Moreover, the Plan needs to explain here that this is because (a) the interim ROD focused on groundwater after field investigations failed to identify any distinct source areas at the site, and (b) additional investigations required by the interim ROD also failed to identify any distinct source areas at the site, making the interim remedy an appropriate final remedy for Site 9.

5. Page 4, Site History: The Building 201 paragraph should discuss the septic system that was suspected to be a source of contamination. Also, the Navy proposed to add certain language to this paragraph (see Navy Response No. 4.e). The language was not added to the Plan and should not be, as it is difficult to understand (how do historical information and aerial photographs indicate groundwater contamination?).

*ADD  
mention of  
septic system*

6. Page 4, Summary of Investigations, Remedial Investigations:

- a. In order to make the discussion about the septic system investigation clear for the public, it is suggested that the paragraph about the Technical Memorandum be (i) moved to after the bulleted list of "activities" at the site, and (ii) revised to read as follows: "In addition, the Navy determined in a Technical Memorandum (ABB-ES 1994b) that the septic system located east of Building 201 was no longer an active source of vinyl chloride in the groundwater at Site 9 but could have been a

historical source”.

- b. ✓ It is suggested that “These activities determined the following:” be replaced with “The Remedial Investigation and Supplemental Remedial Investigation indicated the following:”.
- c. ✓ On the basis of Specific Comment 6.a, delete the second bullet (about the septic system). *Keep*
- d. ✓ The bulleted paragraph about PAH at the inactive ash landfill should be revised to read: “**Polycyclic aromatic hydrocarbons (PAH)** were present in the ash at the inactive ash landfill but not present in the groundwater downgradient from this location”.
- e. ✓ The Plan should state whether the “elevated” concentrations of inorganic contaminants in the groundwater downgradient of the inactive ash landfill (fourth bullet) were above Federal and State drinking water standards. It should do the same for the concentrations of inorganics and PAH in the groundwater seep and sediment from the unnamed streams (fifth bullet).
- f. ✓ Identify the primary inorganics present in the groundwater seep and unnamed streams. See General Comment No. 1. Also, replace “attributed” with “attributable”. *ROD*
- g. ✓ What about results of any investigations of surface water contamination at Site 9? See General Comment No. 1. *ADD the one hit as one sample*

7. Pages 4-5, Summary of Investigations, Interim Record of Decision: EPA previously commented that this section should “state that the remediation goals in the Interim ROD were based on MCLs and MEGs”. The Navy responded by adding certain proposed language to the Plan (see Navy Response No. 7.b.). This proposed language is awkwardly phrased. Moreover, the section as a whole does not provide sufficient information about the interim ROD. To address all the media at Site 9 and spell out the requirements of the Interim ROD clearly for the public (using CERCLA terminology), it is suggested that this section be deleted and replaced with the following:

The Interim Record of Decision was developed by the Navy and approved by EPA and MEDEP in September 1994 to require the Navy to monitor the groundwater contamination at Site 9 while conducting additional source investigations.

Specifically, the interim remedy consisted of groundwater remediation through natural attenuation to contaminant concentrations below federal Maximum Contaminant Levels and

state Maximum Exposure Guidelines. The Interim Record of Decision also required the Navy to (a) develop a Long-Term Monitoring Plan and conduct monitoring of groundwater and surface water quality (to measure the effectiveness of natural attenuation) and contaminant concentrations in the surface water, soil and sediment at Site 9 (to evaluate the impact of groundwater discharge to the streams), (b) implement institutional controls to prevent human contact with the groundwater there, and (c) undertake five-year site reviews as required by CERCLA.

The Interim Record of Decision stated that the interim remedy did not address the source of the groundwater contamination, and that the results of the Navy's additional source investigations were to be used in developing a final Record of Decision for Site 9.

8. Page 5, Summary of Investigations, Source Investigation:

- a. ✓ This section should be entitled "Source Investigations".
- b. ✓ The Plan must state that the primary focus of the additional source investigations was to identify potential sources of VOCs in the groundwater at Site 9, and that the results of limited sampling that was done for SVOCs in soil did not change the previous understanding of the distribution of PAH in the soil at the inactive ash landfill. Clarify in the Plan whether these investigations provided any additional information on inorganics in site groundwater or PAH and inorganics in site sediments or groundwater seep. If they did not, or were not intended to, this should be made clear to the reader. See General Comment No. 1. *To Determine Intent*
- c. ✓ It is suggested that the introductory sentence be reworded to state that "As a result of the source investigations conducted in 1995-1998, the Navy reached the following conclusions: ...".
- d. ✓ It is suggested that the third bullet also state that a definitive source was not found for the VOCs in the site groundwater.
- e. ~~With regard to the fourth bullet, the Plan should state explicitly that the recommendation to continue the long-term monitoring program referred to groundwater monitoring for VOCs only. See General Comment No. 1.~~

9. Page 5, Risk Evaluations:

- a. Where is the discussion of ecological risk (or the lack thereof) from the groundwater at Site 9? See General Comment No. 1. *ADD Summary of App D to R of R*

- b. Where is the discussion of human health and ecological risks (or the lack thereof) from the soil, surface water and sediments at Site 9? See General Comment Nos. 1 and 2. This section must provide an overview of the baseline risk assessment (and any other risk assessments that have been done for Site 9) and specifically describe each contaminated medium (not just groundwater); the COCs in each medium, and - most important - the current and future baseline exposure scenarios and current and potential site risks (including both carcinogenic and noncarcinogenic threats) for each medium. Moreover, this section must conclude for each medium that there is or is not an unacceptable risk to human health or the environment based on the identified current and future baseline exposure scenarios, ~~and it must state whether a CERCLA remedial action is necessary (which is true for groundwater and soil) or No Further CERCLA Action is necessary (which appears to be true for surface water and sediments, as they will be addressed under the base's NPDES permit) (see Interim Final Guidance on Preparing Superfund Decision Documents, OSWER Directive 9355.3-02, Section 9.1.2 and Exhibit 9-3).~~ See General Comment Nos. 1 and 2.

It is particularly important that this section address the risks posed by the soil at Site 9. Otherwise, there is no support either for implementing institutional controls to prevent access to soil, as the preferred alternative proposes, or for the excavation that Alternative 3 would involve.

10. Pages 5-6; Summary of Remedial Alternatives:

This section is written with a primary focus on the groundwater contamination at Site 9. For the reasons discussed above, it must also address how the Navy intends to address the contaminants in the other media at the site and why it is doing to (i.e., to address only human health risks or ecological risks as well?). See General Comment Nos. 1 and 2. For example, the introductory sentence must state more than that the primary objective of the proposed remedy for the site is to prevent human exposure to groundwater.

- a. *METS Drapped for SW low risks? Drop to cleanup.*
- b. In Navy Response No. 11.d, the Navy agreed to add certain language to this section. This language was not added to the Plan and should be.
- c. The narrative description of Alternatives 2 and 3 must include information about all of the following: engineering and treatment components (including remediation goals), estimated present-worth cost, implementation time, and the major ARARs associated with the alternative. The ARARs discussion is particularly important for Alternative 3, for which there has been no analysis by Feasibility Study.
- d. In the Alternative 2 section, it is suggested that the Plan state (i) that this alternative includes "reliance upon", not "use of", "natural biological and mechanical systems"; and (ii) that natural attenuation "degrade[s] chemical

✓ contaminants in groundwater" (as the average reader may not know that monitored natural attenuation addresses only groundwater). Also, what are "natural .. mechanical systems"? Because the meaning of the term "mechanical" in this context may be unclear to the public, it is suggested that this phrase be reworded to read "natural biological and ~~flow and dispersion~~ <sup>Physical</sup> systems".

Put in ROD  
e. The description of Alternative 2's institutional controls component is redundant and therefore confusing. It is suggested that the Plan clearly state that Alternative 2 involves two sets of institutional controls: (i) while the Site 9 property belongs to the Navy, a notification or notice (pick one of these terms) in the base Master Plan to prevent human contact with groundwater at Site 9, human contact with soil in the inactive ash landfill area, and excavation of that soil; and (ii) when the Site 9 property is transferred from Navy ownership (e.g., upon base closure), enforceable land use restrictions that would be imposed through the inclusion of appropriate restrictions (e.g., restrictive covenants and/or easement(s)) in all deeds or other transfer documents relating to that property, and that would restrict human contact with groundwater at Site 9, human contact with soil in the inactive ash landfill area, and excavation of that soil.

X It is suggested that the second paragraph of the Alternative 2 section begin as follows: "These institutional controls would apply to ...".

g. The Plan should state that Alternative 2 includes No Further CERCLA Action for the surface water and sediment at Site 9 as these will be address under the base's NPDES permit.

✓ h. With regard to Alternative 3, see General Comment Nos. 1 and 2. — *make consistent*

11. Page 6, Nine CERCLA Evaluation Criteria:

X In the second sentence of the introductory paragraph, replace "complying with environmental laws and regulations" to "complying with applicable or relevant and appropriate requirements of federal and more stringent state environmental laws and regulations".

Ⓟ In No. 2, delete "or other federal or state environmental statutes".

12. Page 8, The Navy's Proposed Remedy:

a. This section of the Plan must state and explain the Navy's belief that the preferred alternative would satisfy all the CERCLA Section 121 findings (including a discussion of the preference for treatment and why it is acceptable that the preferred alternative does not include treatment). See Interim Final Guidance on Preparing Superfund Decision Documents, OSWER Directive 9355.3-02, Section

2.3.6, Pages 2-11 and 2-14.

- b. Revise this section in accordance with General Comment No. 1. At present, this focuses only on groundwater contamination, and does in insufficient detail.
13. Page 9, Glossary: The term "hazardous substance facility" is confusing, especially when used with the term "site" in the same sentence. Please reword.
14. Page 9, References: Why are there two references to the Interim Record of Decision?