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NAS CECIL FIELD, FL  
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LETTER OF TRANSMITTAL AND U S EPA REGION IV COMMENTS ON DRAFT FEASIBILITY  
STUDY REPORT FOR OPERABLE UNIT 5 (OU 5) SITE 15 BLUE 10 ORDNANCE DISPOSAL  
AREA NAS CECIL FIELD FL  
1/30/2007  
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

CTO 39  
7653  
Site 15 FS

January 30, 2007

EMAIL & US MAIL

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BRAC PMO SE  
Attn: Mark Davidson  
4130 Faber Place Drive  
Suite 202  
North Charleston, SC 29405

SUBJ: Operable Unit 5, Site 15 Blue 10 Ordnance Disposal Area, Draft Feasibility Study  
Naval Air Station, Cecil Field, Florida

Dear Mr. Davidson:

The Environmental Protection Agency (EPA) has reviewed the subject document and offers the enclosed comments. Concurrent with the transmission of this Feasibility Study (FS) was the transmission of the Proposed Plan and Record of Decision (ROD). EPA is deferring comment on the Proposed Plan and ROD until the FS has been revised to address EPA's comments. EPA requests that these comments be carried forward into the Proposed Plan and ROD. If you have any questions, please call me at (404) 562-8549.

Sincerely,

Doyle J. Brittain  
Senior Remedial Project Manager

Enc.

cc: David Grabka, FDEP  
Mark Speranza, TTNUS  
Mike Halil, CH2MHill

**Environmental Protection Agency Comments on the  
OU 5, Site 15 Blue 10 Ordnance Disposal Area Feasibility Study**

**Comments**

- 1. Section E.1, 2<sup>nd</sup> paragraph, Page ES-1** – Overall this paragraph reads poorly and incorrectly states that elevated levels of arsenic have been detected in groundwater at only one location. Later in this document there is mention of two groundwater monitoring wells that consistently have reported arsenic levels exceeding the current EPA SDWA MCL [Ref. pages ES-2 and 1-10]. Accordingly, this paragraph should be rewritten to better acknowledge that the groundwater is contaminated with arsenic above the EPA MCL and therefore requires remediation.

The EPA currently does not support many of the conclusions in the Technical Memorandum (and the Addendum) and therefore it should not be included in this Section of the FS. These documents can be referenced later in the Groundwater or Sites Investigation Section. The statements in the Addendum about No Further Action are incorrect and unacceptable to EPA. One groundwater sample after the arsenic contaminated soil is excavated is not determinative of whether the groundwater remains contaminated and requires remedial action. Consequently, as described in more detail below, the Navy must take remedial action for the arsenic and cannot simply monitor.

- 2. Section E.3, 2<sup>nd</sup> paragraph, Page ES-2** – Overall this paragraph reads poorly, oversimplifies the investigative results for contaminated groundwater, and is misleading since a response action under CERCLA is required for the groundwater. Suggest that the paragraph be rewritten to state that:

“Initial investigations and limited sampling of the groundwater beneath Site 15 did not find concentrations of chemicals that would be of concern or present an unacceptable risk to human health based upon existing regulatory requirements. While the remedial investigation for Site 15 was still underway, the EPA revised its Maximum Contaminant Level under the Safe Drinking Water Act regulations at 40 CFR Part 141 for arsenic from a concentration level of 50ppm to 10ppm. As a result of the revised MCL, arsenic became a chemical-of-concern (COC) in Site 15 groundwater based upon samples exceeding the MCL at two monitoring well locations.”

- 3. Section E.4, RAOs, fourth bullet, Page ES-2** – The EPA questions the need to include this RAO considering that any reasonably anticipated land uses should be evaluated as part of the overall cleanup process for this site and specifically used in development of preliminary remediation goals. Both CERCLA and the NCP require remediation of the site to attain the cleanup levels and meet RAOs. It is not appropriate to condition the remediation on not adversely impacting the site in terms of its future land use. In other words, successful remediation of the site would mean that the cleanup levels are achieved and consequently, the site can be used for its anticipated land use, which in this case is Recreational. The extent of the excavation and land disturbing activities to address COCs

in soil should not be driven by aesthetics or other factors that are not related to protection of human health and the environment. Please explain and defend this RAO.

4. **Section E.4.1 Soil 1st paragraph, Page ES-3** – Please explain the term ‘pickup values’ in this paragraph or earlier in the document and how the concept relates to cleanup levels for COCs in soil.
5. **Section E.4.2 Groundwater, 1st paragraph, Page ES-4** – Overall this paragraph reads poorly and incorrectly states that elevated levels of arsenic have been detected in groundwater at only one location. Need to reference both well locations and concentrations in this paragraph. In addition, the FS should recognize that the cleanup level for arsenic contaminated groundwater is based upon the EPA MCL, which is a chemical-specific ARAR, and not the FDEP GCTL since it is not more stringent than the federal MCL. Please revise this paragraph and any other parts of the FS accordingly.
6. **Section E.4.2 Groundwater, 2<sup>nd</sup> paragraph, Page ES-5** – Does this estimated area include the projected plume based upon both monitoring wells that have exceeded the arsenic MCL? If it does not, then the Navy must recalculate the area of arsenic impacted groundwater. Also, given the limited number of monitoring wells the EPA is not confident that the Navy has adequately characterized the extent of arsenic contamination in this area of Site 15. Consequently, use of this estimated area figure may not be an accurate representation of the groundwater contamination. Consider revising and include a sentence with a caveat that this estimation is based upon limited data from only two wells.
7. **Section E.5.2 Groundwater GRAs** – The Navy’s inclusion of only one real alternative for groundwater is insufficient for purposes of determining which remedial approach would meet the EPA’s expectations for developing remedial alternatives and considering the requirements of CERCLA and the NCP [See excerpt below from EPA *Rules of Thumb for Remedy Selection* OSWER 9355.0-69, August 1997].

## Exhibit 1

### Superfund Program Goal and Expectations

#### Program Goal (40 CFR 300.430(a)(1)(i))

The national goal of the remedy selection process is to select remedies that are protective of human health and the environment, that maintain protection over time, and that minimize untreated waste.

#### Program Expectations (40 CFR 300.430(a)(1)(iii)(A-F))

EPA generally shall consider the following expectations in developing appropriate remedial alternatives:

- EPA expects to use treatment to address the principal threats posed by a site, wherever practicable.
- EPA expects to use engineering controls, such as containment, for waste that poses a relatively low long-term threat or where treatment is impracticable.
- EPA expects to use a combination of methods, as appropriate, to achieve protection of human health and the environment.
- EPA expects to use institutional controls, such as water use and deed restrictions, to supplement engineering controls as appropriate for short- and long-term management to prevent or limit exposure to hazardous substances, pollutants or contaminants.
- EPA expects to consider using innovative technology when such technology offers the potential for comparable or superior treatment performance or implementability, fewer or lesser adverse impacts than other available approaches, or lower costs for similar levels of performance than demonstrated technologies.
- EPA expects to return usable ground waters to their beneficial uses wherever practicable, within a timeframe that is reasonable given the particular circumstances of the site.

There should be alternatives in this FS that include some type of in-situ or ex-situ treatment of the groundwater designed to meet cleanup levels. In addition, the "Limited Action: LUCs and Monitoring: Alternative GW-2 does not appear to include a remedial component that would attain the chemical-specific ARAR. Monitoring is not a remedial action designed to restore groundwater and is unacceptable as a remedial alternative. If the Navy is considering Monitored Natural Attenuation (MNA), then it must be stated in this Section (as well as any other Sections of the FS that describes this Alternative for groundwater) and explained thoroughly in this document. This document would need to summarize the technical analysis of how the arsenic concentrations would decrease over time and eventually attain the cleanup level. Reference the EPA Directive below and cited guidance documents therein.



**DIRECTIVE NUMBER:** 9200.4-17P

**TITLE:** Use of Monitored Natural Attenuation at Superfund, RCRA  
Corrective Action, and Underground Storage Tank Sites

**APPROVAL DATE:** April 21, 1999

8. **Section E.6 Alternative GW2, Page ES-8** – As stated above, this alternative is not acceptable because monitoring alone is not a remedial action and does not meet EPA expectations for restoring groundwater to its beneficial use.
9. **Section E.8.2.1 Alternative GW2, Page ES-11** – The document states that this alternative “would be protective.” Please describe the underlying factors or basis for that conclusion and include such reasoning in the document. As stated above, this alternative is not acceptable because monitoring alone is not a remedial action and does not meet EPA expectations for restoring groundwater to its beneficial use. Consequently, it is EPA position that monitoring with LUCs alone cannot be deemed protective. Alternatives that do not meet the two threshold criteria of CERCLA cannot be carried forward to the Proposed Plan as the preferred alternative.
10. **Section E.8.2.2 Alternative GW2, Page ES-11** – Please elaborate how GW2 would attain ARARs. For example a timeframe for how long to meet cleanup levels should be provided and location where the cleanup levels would be met (i.e., throughout the plume) should be provided.
11. **Section E.8.2.3 Alternative GW2, Page ES-11** – Please elaborate how GW2 would attain ARARs and be effective in the long term, especially since monitoring alone is not considered by EPA as a remedial action.
12. **Section E.8.2.4 Alternative GW2, Page ES-11** – Please explain how arsenic would decrease over time due to attenuation. Are there modeling results or studies to support this statement? Reference EPA Directive and guidance on MNA to ascertain whether MNA is a viable alternative for the Site 15 groundwater contamination.
13. **Section E.8.2.5 Alternative GW2, Page ES-12** – Please elaborate how GW2 would be effective in the short term, especially since monitoring alone is considered a remedial action and there is no explanation of how the cleanup levels are going to be met through either active treatment or MNA. Also, only the RAO related to exposure could be met through application of the LUCs provided these were implemented in a timely fashion after the ROD is signed.

**14. Section 1.2.3.3 Groundwater, Page 1-4** – The document states that only surficial aquifer was investigated. What was the rationale for this limited scope and the shallow monitoring wells?

**15. Section 1.5.2 Groundwater, Page 1-20** – Please include a reference to the EPA MCL when comparing arsenic levels to the FDEP GCTL. [See Comment 5 above.]

**16. Section 2.1.1 RAO for Groundwater, Page 2-2** – Please include a reference to the EPA MCL when comparing arsenic levels to the FDEP GCTL. [See Comment 15 above.]

**17. Section 2.1.2 ARARS and TBC, Page 2-2** – Please rewrite the entire second full paragraph to better reflect that compliance with ARARs is required by CERCLA 121(d) and the NCP. See example language below.

CERCLA Section 121(d), specifies in part, that remedial actions for cleanup of hazardous substances must comply with requirements and standards under federal or more stringent state environmental laws and regulations that are applicable or relevant and appropriate (i.e., ARARs) to the hazardous substances or particular circumstances at a site or obtain a waiver [see also 40 *Code of Federal Regulations (CFR)* 300.430(f)(1)(ii)(B)]. Applicable or relevant and appropriate requirement (ARARs) include only federal and state environmental or facility siting laws/regulations and do not include occupational safety or worker protection requirements. In addition, per 40 *CFR* 300.405(g)(3), other advisories, criteria, or guidance may be considered in determining remedies (so-called To-Be-Considered [TBC] guidance category).

**18. Section 2.1.2 ARARS and TBC, Page 2-3** – Please delete the language (including the bullets) related to ARAR waivers since none of the alternatives involve the use of one of the waivers.

**19. Section 2.1.3 Media of Concern, 1<sup>st</sup> paragraph, Page 2-5** – Please state that there are two monitoring wells that have consistently exceeded the MCL. [Reference Comments 1 and 5 above]

**20. Section 2.1.3 Technical Memo for Groundwater, 2nd paragraph, Page 2-5** – As stated earlier in Comment #1, the EPA does not agree with the statements that monitoring alone is sufficient to address the arsenic contaminated groundwater nor is one sample sufficient to demonstrate that source control soil removal remedied that situation. This entire paragraph must be rewritten to reflect an approach that meets EPA expectations and accurately describes that a remedial action will be taken for the groundwater such as MNA with LUCs. There will not be an NFA decision approved by EPA for contaminated groundwater. Rather once the arsenic levels reach their cleanup levels consistently in all wells for a sufficient period then that portion of the remedial action will be deemed successful and documented in the first CERCLA 5 Year Review Report.

21. **Section 2.2.2 Groundwater Cleanup Goals, 1st paragraph, Page 2-12** – One sentence for this Section of the FS is insufficient and must be revised to add more details about how the MCL for arsenic is expected to be achieved through the remedial action. Also, arsenic concentrations have been exceeded in two wells.
22. **Section 2.3.1 Groundwater GRAs, 1st paragraph and bullets, Page 2-13** – As stated above, the *Limited Action: LUCs and Monitoring* alternative is not acceptable because monitoring alone is not a remedial action and does not meet EPA expectations for restoring groundwater to its beneficial use. There should be other alternatives as well that include an active treatment or removal option in addition to this faulty alternative that demonstrates the Navy fully considered remedial options for addressing arsenic contaminated groundwater.
23. **Section 2.4.2 Groundwater Volume, 1st paragraph and bullets, Page 2-14** – As stated earlier in Comment #6, the estimated volume of contaminated groundwater should include data from both wells. Also, EPA questions the validity of these estimates considering that there are only two wells. The Additional down-gradient wells could be useful in determining the extent of the arsenic contaminated groundwater plume which could be much larger than assumed by the data of one well.
24. **Table 2-2 State Chemical-specific ARARs, Page 6 of 7** – The entry for FAC 62-780 should be deleted from the table since these regulations do not provide any applicable requirements for the remedial alternatives that must be developed and documented in this FS. As stated in previous e-mail from the EPA Attorney, the Risk Management Option II does not provide ARARs compliant with CERCLA and therefore will not be utilized.
25. **Table 2-5 Federal Action-specific ARARs, Page 2 of 7** – The entry for CERCLA Offsite Rule and the NCP is not ARAR. The NCP is never considered an ARAR. Delete this entry from the table. Discussion of the Off-site Rule should be included in those portions of the FS (and subsequent CERCLA documents such as the Proposed Plan and ROD) when describing how offsite shipments of hazardous wastes to an approved TSD facility must comply with the CERCLA and NCP Off-site Rule provisions.
26. **Table 2-5 Federal Action-specific ARARs, Page 2 of 7** – The entry for the RCRA FFCA is not ARAR. The implementing regulations could be ARAR. However, this exclusion not relevant for any aspect of the remedial alternatives and therefore should be deleted from the table.
27. **Table 2-5 Federal Action-specific ARARs, Page 4 of 7** – All of the entries for the OSHA regulations should be deleted from the table since these are not ARARs under CERCLA. ARARs are the requirements of environmental and facility siting laws only. Independent of ARARs, on-site activities also must comply with requirements of non-environmental laws including building codes and safety requirements such as Occupational Safety and Health Administration (OSHA) requirements. These requirements will apply independently to the active construction activities undertaken as part of the CERCLA action.

- 28. Table 2-5 Federal Action-specific ARARs, Page 4 of 7 – Delete the RCRA Contingency Plan regulations entry from the table. Under CERCLA 121(e) on-site actions are required to comply with only the substantive aspects of environmental laws and regulations. See excerpt below from EPA's *CERCLA Compliance with Other Laws Manual Draft Final* (August 1988).**

~~In general, on-site actions need comply only with the substantive aspects of ARARs, not with the corresponding administrative requirements. That is, permit applications and other administrative procedures, such as administrative reviews and reporting and recordkeeping requirements, are not considered ARARs for actions conducted entirely on-site. However, the~~

- 29. Table 2-5 Federal Action-specific ARAR, Page 6 of 7 – Delete the RCRA Preparedness and Prevention regulations entry from the table. Under CERCLA 121(e) on-site actions are required to comply with only the substantive aspects of environmental laws and regulations. See Comment #28 above.**
- 30. Table 2-5 Federal Action-specific ARARs, Page 6 of 7 – Delete the RCRA Subpart F standards unless there is a RCRA regulated unit being addressed by the CERCLA process. If there is not a RCRA unit but these regulations are deemed relevant and appropriate, then presumably the groundwater monitoring requirements would be utilized. The FS description of groundwater monitoring would not comply with these ARARs which are very prescriptive and additional wells would be needed as part of the CERCLA action.**
- 31. Table 2-5 Federal Action-specific ARARs, Page 7 of 7 – Delete the Ecological Risk Guidance as TBC since this document would be utilized earlier in the CERCLA process and does not provide prescriptive contaminant levels for the remedial action.**
- 32. Section 3.0 and 3.3 Screening of Technologies, Pages 3-1, 3-14 thru 3-16 – As previously mentioned in several Comments above, the Navy has failed to include acceptable alternatives for addressing the arsenic contaminated groundwater. Consequently, this Section of the FS in particular Section 3.3 must be redone to include acceptable alternatives. There should be alternatives and a discussion in the FS of in-situ or ex-situ treatment technologies, and/or containment actions for the groundwater as well as a discussion on MNA. Again, monitoring is not an acceptable remedial action much less a "technology" for addressing the arsenic contamination.**
- 33. The Navy has identified and considered six different alternatives for contaminated soil but only two for groundwater. Of these six alternatives for soil, it is likely that at least one will be acceptable for attaining Remedial Action Objectives (RAOs) and be reasonably cost-wise. However, only two alternatives have been identified for contaminated groundwater of which only one involves any form of action. EPA requests that the Navy identify various RAOs for contaminated groundwater as was done for the soil. Then, consider additional Remedial Action alternatives for contaminated**

groundwater to attain those RAOs and attain MCLs within some projected timeframe. EPA does not agree with the Remedial Alternatives identified.

In saying this, EPA is fully aware of the Navy's plans to excavate soils at hotspots thereby to achieve acceptable RAOs, i.e., do hot-spot removals, which is fully explained in the FS. However, EPA is also aware of the Navy's plans to over-excavate the site where there is groundwater contamination which is not reflected in the FS. The purpose for the over-excavation is to remove the source of contamination contributing to the groundwater contamination. EPA is also aware of the Navy's plans to do confirmatory sampling of the soil and groundwater after excavation, and to do groundwater modeling to demonstrate attainment of standards within some yet to be identified timeframe during which Monitored Natural Attenuation (MNA) would occur. Please include those plans in this FS and include at least one corresponding Remedial Alternative in the FS that will achieve RAOs for groundwater. These plans have been discussed in detail during BCT Meetings, teleconferences, and emails. However, they just need to be contained within this FS.