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NAS CECIL FIELD, FL
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LETTER REGARDING U S EPA REGION IV COMMENTS ON DRAFT THIRD FIVE YEAR
REVIEW NAS CECIL FIELD FL
11/04/2010
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
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November 4, 2010

MEMORANDUM

SUBJECT: Comments on the Third Five-Year Review (September 2010 Draft) for NAS Cecil Field, Jacksonville, Florida, submitted by the BRAC Program Management Office Southeast

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Section 1.0: Introduction

1. Section 1.1, p. 1-1: Revise to reflect proper roles and responsibilities of the Navy and EPA. What does the FFA provide for regarding Five Year Reviews? See, e.g., EPA Comprehensive Five Year Review Guidance §2.5.2, p. 2-8. Consider adding a statement such as: "EPA retains authority to concur with the lead federal agency's protectiveness determinations to ensure protection of human health and the environment, consistent with EPA's statutory and regulatory authorities, or EPA may provide independent findings."

Section 2.0: Operable Unit 1, Sites 1 and 2

1. Section 2.1, p. 2-1 (Introduction): Revise to reflect the correct terminology for the five-year review requirement, which is when contaminants remain at the site above levels that allow for "*unlimited use and unrestricted exposure*." 40 CFR §300.430(f)(4)(ii).
2. Section 2.4.2, p. 2-5: Revise to reflect how the bulleted LUC objectives have been implemented for OU 1. The bulleted items are not LUCs per se but are LUC objectives selected in the November 2003 ESD that were to be implemented for this Site. Were the LUC objectives implemented in the form of Deed Restrictions when the Navy transferred the property? Or were the LUC objectives incorporated in some other type of legal notice document recorded in the official land records for the county? The Five Year review needs to specify how the LUC objectives have been met.

4. Section 2.6.1, p. 2-10: The text states that “the upstream portions of this tributary stream (locations RR-1 through RR-4) have consistently been the locations where concentrations of analytes in surface water and sediment have exceeded ecological guidelines.” Revise to include that analytes in surface water and sediments collected at RR-07 that appear to have also consistently exceeded ecological guidelines during the following sampling events 04/01, 05/04, and 07/09.
5. Section 2.6.1, p. 2-12 (Groundwater Sampling): The text states that “concentrations of combined radium have exceeded the FDEP groundwater cleanup target level (GCTL) at CEF-001-05S during all sampling events but one, in April 2001. Monitoring will continue at this well until total radium concentrations are less than the GCTL for two consecutive monitoring events. The concentrations do not present a risk to human health or the environment because *LUCs are in place* to prohibit use of groundwater at the site.” Revise to specify what form of “LUCs are in place.” For example, deed restrictions prohibiting use of groundwater have been included in the property deed and recorded in the official county land records.
6. Section 2.6.1, p 2-13 (Sediment Toxicity Testing):
 - a. The narrative discusses the toxicity test results but the toxicity test data does not appear to be in the appendices or figures.
 - b. The text states that “the toxicity results indicate that there are no OU 1-related impacts to growth of test organisms, and that the *survival rate decreased noticeably* compared to the control and reference samples only in samples RR-01-SD-15 and RR-04-SD-15 which were collected from the tributary stream and its source.” However, the OU-1 ROD risk-reduction RAOs include a requirement to reduce unacceptable exposure of ecological receptors to metals in sediments and in the Site 2 tributary surface water. This toxicity test results and the sediment and surface water chemical-specific ARAR exceedances appear to indicate that the RAOs are not being met. See page 2-6 in the OU-1 ROD.
 - c. The text states that “downstream samples appear to be unaffected.” Again, the toxicity test sampling locations and results data do not appear to be included in any of the appendices or figures. Where were the downstream samples collected and, specifically, what were the results of the toxicity tests?
7. Section 2.7.1, p. 2-15 (Question A: Is the Remedy Functioning as Intended?): Upon close review, EPA may not agree that source control worked and that the remedy is functioning as intended because there are continued releases to surface water, contaminated sediments exceeding eco-risk levels, and an apparent failure of at least one chironomid toxicity test. The RAOs identified for risk-reduction require that the Navy reduce unacceptable exposure of ecological receptors to metals in sediments and unacceptable aquatic receptor responses to metals in the Site 2 tributary surface water (OU-1 ROD, p. 2-6). In the “Biomonitoring Program Outline” (OU-1 ROD, Attachment B), “decision-criteria” based on ARARs and guidance identified in the FS were to be established and subsequently used during the five-year reviews to determine whether, if the decision criteria were exceeded, to select additional remedial measures. The five-year review should be revised to reflect the pre-defined decision criteria and the conclusions of a “critical review of the data generated relative to the pre-defined decision criteria.” (OU-1 ROD,

- Attachment B-1). Without this “critical review,” how can the Navy demonstrate in the five year review that the remedy is functioning as intended?
8. Section 2.7.2.1, p. 2-15 (ARAR Table): Why has the Navy chosen new values for some COCs when there are existing chemical-specific ARARs (e.g., FSWQS and MCLs) that appear to be relevant and appropriate and are reflected in the OU-1 ROD ARAR tables? The OU-1 ROD contained an ARAR waiver for Florida Surface Water Quality Standards for iron, lead, and nickel, but requires that all other chemical-specific ARARs be attained. Thus, the Navy shouldn’t change the cleanup levels absent an ESD or waiver, if appropriate.

Section 3.0: Operable Unit 2, Sites 5 and 17

1. Section 3.1, p. 3-1 (Introduction): Revise to reflect the correct standard for the five-year review requirement, which is when contaminants remain at the site above levels that allow for “*unlimited use and unrestricted exposure.*” 40 CFR §300.430(f)(4)(ii).
2. Section 3.2, p. 3-1 (Site Chronology Table): Correct date of the ESD finalization/signature is November 2003, not October. Need to correct this date throughout the draft five-year review document for all OUs subject to this particular ESD.
3. Section 3.4.2.1, p. 3-6 (Site 5, Land Use Controls): The bulleted text is simply a list of the LUC objectives and not the actual LUCs. Need to revise accordingly and list LUCs that have been implemented or will be implemented (e.g., deed restrictions) in accordance with the LUC RD. If the property has been transferred, were the LUC objectives incorporated into the deed of conveyance in accordance with the LUC RD? Note: New owner may be responsible for maintaining LUCs, but the Navy remains responsible for remedy protectiveness and integrity. If the remedy fails, the Navy, and not the new owner, must address the failure and notify EPA.
4. Section 3.4.2.2, p. 3-7 (Site 17, Land Use Controls): Same as above. The bulleted text is LUC objectives. Revise to reflect actual LUCs that have been implemented.
5. Section 3.6.2, p. 3-14, second paragraph (Site Inspection): Were the LUC objectives outlined in the LUC RD recorded as deed restrictions upon conveying the property to the City of Jacksonville?

Section 4.0: Operable Unit 3, Site 8

1. Section 4.1, p. 4-1 (Introduction): Revise to reflect the correct standard for the five-year review requirement, which is when contaminants remain at the site above levels that allow for “*unlimited use and unrestricted exposure.*” 40 CFR §300.430(f)(4)(ii).
2. Section 4.4.1, p. 4-3 (Remedy Selection): Revise the fourth paragraph regarding the surface soil remedy to include that the ROD requires that “all future remedial actions related to soils contaminated with TRPH will be addressed under Chapter 62-770, Florida Administrative Code.” Site 8, OU 3 ROD, page 2-22. The remedy has been carried out in compliance with FAC Section 62-770 to satisfy the state surface soil cleanup standard of 350 mg/kg for TRPH.

3. Section 4.4.2, p. 4-4 (Remedy Implementation/LUCs): See previous comments regarding LUCs. The bulleted text is simply a list of the LUC objectives and not the actual LUCs. Need to revise accordingly and list the specific form of LUCs that have been implemented or will be implemented (e.g., deed restrictions) in accordance with the LUC RD.
4. Section 4.4.2, p. 4-4: Correct date of the ESD finalization/signature is November 2003, not October.
5. Section 4.7.2.1, p. 4-11 (ARARs changes): Revise first paragraph below the ARAR table to include an explanation as to why the changes in the state cleanup level standards do no effect the protectiveness of the remedy. For example: “These new contaminant cleanup target levels rely upon health-based risk assessments and have become more stringent since the signing of the ROD. However, this change does not affect the protectiveness of the remedial design *because excavation of contaminated soils resulted in the removal of soils exceeding current ARARs and groundwater sampling results demonstrate that the current ARARs have not been exceeded.*”

Section 5.0: Operable Unit 5, Site 15

1. Section 5.1, p. 5-1 (Introduction): Revise first sentence for clarity and better structure. The draft currently states: “This five-year review provides a detailed review of the soil and groundwater remedial actions, including excavations and munitions response, and is being conducted as a statutory review, because LUCs will remain at the site since there is soil at the site that prevents unrestricted reuse and unrestricted exposure will be possible.” Revise so that it reads: “This five-year review provides a detailed review of the soil and groundwater remedial actions, including excavations and munitions response. This five-year review is being conducted as a statutory review because soil contamination will remain at Site 15 at concentrations *above levels that allow for unlimited use and unrestricted exposure*; therefore, the remedy requires LUCs be implemented to prevent unacceptable risk from exposure to any remaining soil contamination.”
2. Section 5.4.2.4, p. 5-5 (Land Use Controls): See previous comments regarding LUCs. The bulleted text is simply a list of the LUC objectives and not the actual LUCs. Need to revise accordingly and list the specific form of LUCs that have been implemented or will be implemented (e.g., deed restrictions) in accordance with the LUC RD.
3. Section 5.6.1, p. 5-7 (Document and Analytical Data Review): Given the exceedances of the GCTL for arsenic, groundwater use restrictions should be added to the LUC objectives if the Navy is considering transferring this property before it has reduced the arsenic levels below the GCTL.
4. Section 5.7.1, p. 5-8 (Is the Remedy Functioning as Intended?): It appears that the property containing Site 15 has not yet been transferred to the City of Jacksonville. Thus, this section needs to be revised to clarify that the LUC objectives, which require deed restrictions limiting the future property uses, will not be considered implemented and protective until the deed containing the use restrictions is recorded

in the county property records. If the deed restrictions have been recorded, then state that such is the case.

5. Section 5.9, p. 5-10 (Recommendations/Follow-up Actions): Require the addition of groundwater use restrictions (due to current arsenic levels) if not already covered by the existing LUC objectives.

Section 6.0: Operable Unit 7, Site 16

1. Section 6.1, p. 6-1 (Introduction): Revise second sentence to include the correct standard for the five-year review requirement, which is when contaminants remain at the site above levels that allow for “*unlimited use and unrestricted exposure.*” (See NCP, 40 CFR §300.430(f)(4)(ii)).
2. Section 6.4.2.7, p. 6-6 (Land Use Controls): See previous comments regarding LUCs. The bulleted text is simply a list of the LUC objectives and not the actual LUCs. Need to revise accordingly and list the specific form of LUCs that have been implemented or will be implemented (e.g., deed restrictions) in accordance with the LUC RD.
3. Section 6.6.1, p. 6-12 (Document and Analytical Review): The sixth full paragraph in this section states that “baseline sampling at the three monitoring wells that were part of the pilot study showed TCE at concentrations *exceeding* its GCTL at all three locations: 387 µg/L, 4,050 µg/L, and 2.9 µg/L.” Is the GCTL for TCE not 3.0 µg/L?
4. Section 6.8, p. 6-17 (Issues): Revise last sentence in this section for clarity and use of active voice. For example, revise so the sentence reads: “The Pilot Study Technical Memorandum (TtNUS, 2010) identified that the most appropriate action to address the rebound of TCE concentrations was to operate the existing system again until TCE concentrations reduced to below the system action level and continue this cycle as needed until the cleanup goals are obtained.”

Section 7.0: Operable Unit 8, Site 3

1. Section 7.2, p. 7-1 (Site Chronology): Correct date of the ESD for LUCs is finalization/signature is November 2003, not October. Needs to be corrected throughout the Five-Year Review documents.
2. Section 7.4.2, p. 7-4 (Land Use Controls): See previous comments regarding LUCs. The bulleted text is simply a list of the LUC objectives and not the actual LUCs. Need to revise accordingly and list the specific form of LUCs that have been implemented or will be implemented (e.g., deed restrictions) in accordance with the LUC RD.
3. Section 7.5, p. 7-7 (Progress Since Last Five-Year Review): In the progress table, revise LUC implementation status to include the form of the LUC, e.g., recorded Deed Restrictions in county land records.
4. Section 7.6.1, p. 7-7 (Documents Reviewed): Revise to include the 2003 ESD that added LUC requirements for OU 8.
5. Section 7.6.2, p. 7-13 (Site Inspection): Last sentence in the section states that “Site 3 LUC inspections have been completed annually by JAA since the transfer of the

- property, and no issues were discovered.” What documents were reviewed and/or field inspections carried out to ensure compliance with the LUC objectives contained in any deed restrictions or other LUC documents?
6. Section 7.7.1, p. 7-13 (Question A: Is the Remedy Functioning as Intended by Decision Documents?) Revise first and second paragraph to include the ESD and the type of LUCs that have been put in place. For example, see the following added text in italics. “The review of documents, ARARs, and risk assumptions and the results of the site inspections indicate that the remedy is functioning as intended by the ROD, *as modified by the ESD*. The implementation of the long-term groundwater monitoring program is ongoing and indicates that natural attenuation is working at the site. The implementation of LUCs is protective of human health and the environment by preventing exposure to contaminated subsurface soil and groundwater that may pose a risk. *The LUCs that are in place include: [list, e.g., deed restrictions prohibiting use of groundwater, etc.; list the LUC objectives from the ESD that have been recorded as deed restrictions.]*”
 7. Section 7.7.2.1, pp. 7-14, 7-15 (ARARs Changes): The paragraph following the ARARs table states that “the ARARs for three of the COCs (2,4-dichlorophenol, 2-methylnaphthalene, and 4-methylphenol) have decreased since the ROD was signed.” If new risk data shows that the old standard adopted in the ROD is no longer protective, i.e., no longer within EPA’s risk range, then the Navy should adopt the new standard and document the change through an ESD. The five-year review needs to be revised to reflect whether the new currently calculated risk associated with the old standard is still within the risk range before the Navy can conclude that the old standard is still protective. (See EPA’s Comprehensive Five-Year Review guidance, Exhibit G-1, “Evaluating Changes in Standards”).
 8. Section 7.7.2.1, p. 7-14 (ARAR Table). The table lists a “new” IBDS value for antimony that is well above the Primary Drinking Water Standard. Is the Navy proposing to adopt the IBDS value as the cleanup level? The IBDS value may not be protective, i.e., within the acceptable risk range and the ROD recognizes the Primary Drinking Water Standard as the ARAR to be followed.

Section 8.0: Operable Unit 9, Sites 36, 37, 57, 58 and 59

1. Section 8.2 (Site Chronology Table): Add November 2003 ESD for LUCs, Sites 36 and 37.
2. Section 8.4.2, pp. 8-10, 8-11, 8-12 (Land Use Controls): See previous comments regarding LUCs. The bulleted text is simply a list of the LUC objectives and not the actual LUCs. Need to revise accordingly and list the specific form of LUCs that have been implemented or will be implemented (e.g., deed restrictions) in accordance with the LUC RD.
3. Section 8.6.1, p. 8-18 (Document and Analytical Data Review): First paragraph, add November 2003 ESD for LUCs.
4. Section 8.7.2.1, p. 8-37 (ARARs Table): Is the Navy planning to adopt the new, lower groundwater standards identified in this table? Generally, the new standard should be adopted through an ESD if the new currently calculated risk associated with the old standard is outside of EPA’s risk range. See EPA’s Comprehensive

Section 9.0: Operable Unit 10, Sites 21 and 25

1. Section 9.1, p.9-1 (Introduction): Revise to reflect the correct terminology for the five-year review requirement, which is when contaminants remain at the site above levels that allow for "*unlimited use and unrestricted exposure.*" 40 CFR §300.430(f)(4)(ii).
2. Section 9.4.1.1, p. 9-3 (Site 21): Revise first sentence after bulleted text to include LUCs for groundwater. For example, "The selected alternatives at Site 21 were monitored natural attenuation *and* LUCs for groundwater, and LUCs for soil."
3. Section 9.4.2.1, p. 9-6 (Site 21): See previous comments regarding LUCs. The bulleted text is simply a list of the LUC objectives and not the actual LUCs. Need to revise accordingly and list the specific form of LUCs that have been implemented or will be implemented (e.g., deed restrictions and whether they have been recorded in the county land records) in accordance with the LUC RD.
4. Section 9.7.1, p. 9-11 (Site 21- Question A: Is the Remedy Functioning as Intended by Decision Documents?): Last sentence states that "LUCs are in place at Site 21." Does "in place" mean the deed restrictions have been recorded? Need to specify.
5. Section 9.7.2.1, p. 9-13 (ARARs Table): Revise the table to reflect the correct SCTLs for TRPH. For example, Table 2-1 in the ROD lists the "original" FDEP 1999 SCTL for TRPH as 340 mg/kg for both Residential Direct Exposure and Leachability to Groundwater, not 380 mg/kg as stated in the Five-Year Review table. Was the ROD incorrect? The current or "new" SCTLs for TRPH from Florida's Contaminant Cleanup Target Levels Rule, FAC 62-777, are 460 mg/kg (Residential Direct Exposure) and 340 mg/kg (Leachability to Groundwater). The paragraph following the ARARs table needs to be revised to reflect the increase in the SCTL for Residential Direct Exposure. For example: "The new contaminant cleanup target level based on residential direct exposure to TRPH has become less stringent since the signing of the ROD. This change will not affect the protectiveness of the remedial design"

Section 10.0: Operable Unit 11, Site 45

1. Section 10.1, p. 10-1 (Introduction): Revise to reflect the correct standard for the five-year review requirement, which is when contaminants remain at the site above levels that allow for "*unlimited use and unrestricted exposure.*" 40 CFR §300.430(f)(4)(ii).
2. Section 10.4.2, p. 10-4 (Land Use Controls): Same as previous comments regarding LUCs. The bulleted text is simply a list of the LUC objectives and not the actual LUCs. Need to revise accordingly and list the specific form of LUCs that have been implemented or will be implemented (e.g., deed restrictions) in accordance with the LUC RD.

3. Section 10.5, p. 10-6 (Progress Since Last Five-Year Review). The table states that LUCs are “in place.” Does “in place” mean that any required deed restrictions have been recorded in the county land records? If so, include this information in the table.

Section 11.0: Operable Unit 12, Site 32

1. Section 11.1, p. 11-1 (Introduction): Revise to reflect the correct standard for the five-year review requirement, which is when contaminants remain at the site above levels that allow for “*unlimited use and unrestricted exposure.*” 40 CFR §300.430(f)(4)(ii).
2. Section 11.4.2, p. 11-4 (Land Use Controls): Same as previous comments regarding LUCs. The bulleted text is simply a list of the LUC objectives and not the actual LUCs. Need to revise accordingly and list the specific form of LUCs that have been implemented or will be implemented (e.g., deed restrictions) in accordance with the LUC RD.
3. Section 11.4.3.2, p. 11-4 (Asphalt Cap): If maintenance is needed, who will be responsible for this after the property is transferred? Do the Deed Restrictions require the new land owner to maintain the cap?
4. Section 11.7.1, p. 11-6 (Is the Remedy Functioning as Intended?): If Deed Restrictions implementing the LUC objectives have been recorded, revise the second paragraph accordingly.

Section 12.0: Base-wide Conclusions and Recommendations

1. Editorial Comments:
 - a. Section 12.1, p. 12-1: Revise first sentence to include LUCs. For example: “The remedial actions at the OUs at NAS Cecil Field are protective or are expected to be protective of human health and the environment, and in the interim, exposure pathways that could result in unacceptable risks are being controlled *through the use of LUCs.*”
 - b. Section 12.2.1, p. 12-2: Revise second sentence to read: “Five-year reviews will continue at these sites because hazardous substances, pollutants, and contaminants remain *at the sites at levels that will not allow for* unlimited use or unrestricted exposure, and the LUCs at these sites are expected, at this time, to be permanent.”
 - c. Section 12.2.2, p. 12-2: Revise first sentence to read: “OU 2, Site 17; OU 7, Site 16; and OU 9, Sites 36, 37, 57, 58, and 59 will require ongoing policy five-year reviews until cleanup levels are achieved, *thereafter allowing* unlimited use and unrestricted exposure.”