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NAS CECIL FIELD, FL
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LETTER OF TRANSMITTAL AND U S EPA REGION IV COMMENTS ON DRAFT FIVE YEAR
REVIEW NAS CECIL FIELD FL
1/6/2000
U S EPA REGION IV

UNITED STATES ENVIRONMENTAL PROTECTION
REGION 4

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07.04.00.0001



61 Forsyth Street
Atlanta, Georgia 30303-3104

January 6, 2000

Commanding Officer
Attn.: Scott Glass, BEC
Dept. of Navy
Southern Division
Mail Code 18B12
P.O. Box 190010
North Charleston, South Carolina 29419-9010

Subject: Draft 5-Year Review, NAS Cecil Field, Jacksonville, FL. Dated October 1999

Dear Mr. Glass:

The U.S. Environmental Protection Agency (EPA) has completed its review of the subject document and per your request we have evaluated its usage for supporting an operating properly and successfully determination. EPA's comments are attached.

As we have discussed during past BCT partnering meetings, this 5-year review was to concentrate on the operable units and interim measures which actually triggered the 5-year review and provide current status updates for the remaining actions and OUs. The interim measure conducted for OU 2 (sites 5 and 17), OU 7 (site 16), and OU 6 (site 11) should be the emphasis of this report. However, if it is the Navy's intent to use the 5-year review to support an OPS determination, then I suggest that the additional information on the other remedial actions remain as part of this report.

The 5-Year Review may be used to support an "Operating Properly and Successfully" (OPS) determination, however, the current draft version does not contain sufficient information. EPA recommends that either the report be expanded to address those issues for the sites needing an OPS or the Navy provide the information under a separate cover. I have outlined additional information needed to support an OPS determination within the attached comments.

If you have any questions, please contact me at 404/562-8539.

Sincerely,

A handwritten signature in black ink that reads "Deborah A. Vaughn-Wright". The signature is written in a cursive style with a large, prominent initial "D".

Deborah A. Vaughn-Wright
Remedial Project Manager

Attachment

cc: Mike Deliz, FDEP
Mark Davidson, SOUTHDIV
Mark Speranza, TNUS
Norm Hatch, CH2M Hill

**EPA Comments on the Naval Air Station Cecil Field
Draft Five-Year Review
Dated October 1999**

Specific Comments for the Introduction

1. Page 1-8. The EPA RPM's name is misspelled. Deborah Vaughn-Wright.

General Comments for Operable Unit (OU)-1

1. Based on the completed activities covered by the Report and activities that are underway or planned, it appears that the intent and goals of the ROD for OU-1 have been or will be met.
2. No conclusions exist for OU-1. Conclusions should be provided in the text. In addition, an explanation should be provided as to how contamination is traveling to the upstream portion of the Site 2 tributary.
3. The Draft Five-Year Review for Naval Air Station Cecil Field contains approximately a two year period of surface water, sediment and groundwater sampling data for OU-1. Only three groundwater sampling events have taken place. A full five years of sampling data would be necessary in order to establish more accurate trends of increasing/decreasing contamination needed to draw conclusions.

As was discussed during the BCT partnering meetings, this 5-year review was to concentrate on the Operable Units and Interim Measures (OU's 2, 6, and 7) that actually triggered the 5-year review and provide a current status update for the other Operable Units. OU-1 is one of the sites where a only current status update is needed. It is suggested that in either in the introductory paragraph or the Recommendations Section a statement is added explaining that less than 5-years of data is available following initiation of the remedial action and that a more detailed review of the monitoring system will be conducted during the next 5-year review. This same comments is applicable to all operable units with less than 5-years of monitoring data following initiation of the remedial action.

Specific Comments for Operable Unit (OU)-1

1. **Figure 2-2.** The letters "B" and "J" appear after several concentration values (example: RR11, Heptachlor 0.011JB*). However, the meanings for the letters do not appear in the legend of the figure. The figure should have the letters and definitions in the legend.
2. **Figure 2-3.** The purpose of the red circles on the figure is not clear. Red circles appear in the legend which are supposed to represent exceedances. Sediment samples RR-12

through RR-16 do not have exceedances. The legend should be revised to have the red circles represent sediment sample locations. In addition, those sample locations which exhibit exceedances should be differentiated from those sample locations which do not exhibit exceedances.

3. Recommend adding a map showing benthic macroinvertebrate results. This would address RAO #1.

4. **Page 2-13, Section 2.4.3** Recommend revising the ARAR/site specific level for manganese. At the most recent BCT meeting we have been using a level of 150 $\mu\text{g/l}$.

This comment applies to all ARAR/site specific action level change tables presented throughout this draft report.

5. **Page 2-18, Section 2.5** Recommend adding a statement that the LUCIP has been prepared, reference where it can be found, and (if accurate) add the LUCIP has been implemented. This would help support an operating properly and successfully determination.

This same comment applies to all operable units/sites with LUCIPs in place.

6. **Page 2-13, Section 2.5, 2nd paragraph** Several discrepancies are listed. Recommend adding further detail explaining the discrepancies and how the BCT addressed them. This would help support an operating properly and successfully determination.

7. **Page 2-19, Section 2.6** The draft report recommends installation of a fence for access control after transfer. OU1 has been transferred and a fence has been installed for the property transferred by the Jacksonville Port Authority. OU1 is within this area which is now fenced. EPA does not see a need for further fencing at this time.

8. **Section 2.4.3** The 5-year review has presented tables showing changes in ARAR and Site Specific Action Levels due to either adoption by the BCT of the NAS Cecil Field Inorganic Background Data Set, FAC 62-777, Florida Contaminant Cleanup Target levels Rule, or changes in EPA or State of Florida Ecological Risk Assessment criteria. Changes of this sort to any remedial action which is taking place under the direction of an approved Record of Decision may require a ROD change per 40 CFR §300.430 (f). I recommend that the BCT address this in the near future.

This comment applies to all Operable Units where an action level change has been approved by the BCT and has not been previously addressed by an ESD or Rod Amendment.

General Comments for Operable Unit (OU)-2

1. It has been stated in the text that concentrations of contaminants have decreased over the monitoring period. However, the concentrations of semi-volatiles (SVOCs) have increased over the monitoring period. The text should be corrected.
2. The Draft Five-Year Review for Naval Air Station Cecil Field contains only approximately nine months of groundwater sampling data for OU-2. Only four groundwater sampling events have taken place. It has been stated in the text that concentrations of contaminants have decreased over the monitoring period, however, this may be premature. It is possible that the decreases in concentrations could be due to seasonal fluctuations in groundwater. Currently, an increase or decrease in contaminant concentrations cannot be determined because of the lack of data. A full five years of sampling data would be necessary in order to establish more accurate trends of increasing/decreasing contamination needed to draw conclusions.

As was discussed during the BCT partnering meetings, this 5-year review will concentrate on the Operable Units and Interim Measures (OU's 2, 6, and 7) that actually triggered the 5-year review and shall provide a current status update for the other Operable Units. OU- 2 is one of the sites which had an Interim ROD approved in 1994 and thus served as a trigger for the five year review. However, the interim action was for the soils and not groundwater. It is suggested that in either in the introductory paragraph or the Recommendations Section a statement is added explaining that less than 5-years of groundwater monitoring data is available and that a more detailed review of the monitoring system will be conducted during the next 5-year review. This same comment is applicable to all operable units with less than 5-years of monitoring data.

3. The focus of the Section on OU-2 should not be on the groundwater monitoring system but on the interim action for source soils which was the action described in the 1994 Interim ROD. Examples of information that should be covered: Was it complete? Was it effective? Were the RAO's from the interim ROD met? Is further soil excavation required?

Specific Comments for Operable Unit (OU)-2

1. **Page 3-1, Section 3.2, First Sentence.** A reference is made to the location of Operable Unit (OU)-2, Site 15. Site 15 for Operable Unit (OU)-2 does not exist. The text should be changed to reflect the correct site number (17).
2. **Page 3-1, Section 3.2, Second Sentence and Figure 3-1.** Figure 3-1 depicts a sketch of Operable Unit (OU)-2, Site 5. The text states that the approximate extent of the groundwater contamination is provided on Figure 3-1. It is not stated in the legend what

type of chemical(s) of concern is present and the concentration amount(s) of the isobar is not given. The text and figures should be changed to clarify these inconsistencies.

Also, The shaded areas within Figures 3-1 and 3-2 should be consistent. Recommending shading the source area and outlining the groundwater plume.

3. **Page 3-1, Section 3.2, Fourth Sentence and Page 3-7, Section 3.2, First Sentence and Figure 3-2.** Figure 3-2 depicts a sketch of Operable Unit (OU)-2, Site 17. The text states that the approximate extent of the groundwater contamination is provided on Figure 3-2. It is not stated in the legend what type of chemical(s) of concern is present and the concentration amount(s) of the isobar is not given. The text and figures should be changed to clarify these inconsistencies.
4. **Page 3-8, Section 3.3.1.1, Sixth Paragraph, Third Sentence.** An evaluation was conducted on the remedial actions selected for groundwater. The text states that during the evaluation, the groundwater analysis showed significantly lower concentrations of VOCs. Terms such as "significantly lower" should not be used without quantification or reference. The previous and present concentrations should be provided in the Report.
5. **Page 3-15, Section 3.3.3.1, First Paragraph, Fourth Sentence.** It is stated that monitoring wells were sampled and analyzed for natural attenuation parameters. The natural attenuation parameters should be provided in the Report.
6. **Page 3-17, Section 3.4.2.1, Second Paragraph, Second and Third Sentences.** The text indicates that maximum detected concentrations of VOC, SVOC, pesticides, inorganic COCs, and TRPH have been decreasing significantly since the Remedial Investigation (RI) which was conducted in 1995. The previous concentrations of the contaminants are not provided, and thus, does not permit comparison of present to past data needed in order to make conclusions. The previous RI concentrations of VOC, SVOC, pesticides, inorganic COCs, and TRPH should be provided in the Report.
7. **Page 3-17, Section 3.4.2.1, Second Paragraph, Fifth Sentence.** The text states that COCs "do not appear" to be migrating beyond site boundaries or discharging into the drainage ditch south of the former disposal pit at "unacceptable levels." The document should present data quantitatively and objectively. Phrases such as "do not appear ... at unacceptable levels" are not appropriate for a technical document. The document should be revised to provide the amount of the concentrations present in the drainage ditch or beyond site boundaries.
8. **Page 3-17, Section 3.4.2.1, Second Paragraph, Sixth Sentence.** The text references VOC, SVOC, TRPH and inorganic exceedences. The text does not express what comparison values were exceeded. Figures 3-5 through 3-7 show in the legend detected concentrations which exceed the target cleanup goal. The text should be corrected to

define the comparison criteria or add cleanup goals to the figures.

9. **Pages 3-17, Section 3.3.2.2, First Sentence.** The section number is not sequential and is incorrect. The correct section number should be used. In addition, the text states that contaminated soil which acted as a source of groundwater was removed, treated and placed back into the excavation. The text should read that contaminated soil which acted as a source of groundwater "contamination" was removed, treated and placed back into the excavation.
10. **Figure 3-6.** Figure 3-6 shows monitoring well CEF-05-LTM-03 as having an exceedence for semi-volatile organic compounds (SVOCs). Also, the figure shows monitoring well CEF-05-WP-04 as having no exceedences. However, the figure does not indicate whether or not there were contaminants detected at well CEF-05-WP-04. The dark, circular line in the figure represents the approximate extent of groundwater contamination and well CEF-05-WP-04 lies outside this line. The well concentrations should be provided in the document and the line of groundwater contamination should be extended beyond CEF-05-WP-04 if any contaminants were detected. In addition, the exceedence at CEF-05-LTM-03 lies outside the line of groundwater contamination. The figure should be revised to have CEF-05-LTM-03 lie within the line of groundwater contamination.
11. **Figures 3-7 and 3-8.** Figures 3-7 and 3-8 show monitoring wells CEF-05-WP-04 and CEF-05-LTM-03 as having no exceedences for total recoverable petroleum compounds (TRPH) and inorganics. However, the figure does not indicate whether or not there were contaminants detected at these two wells. The dark, circular line in the figure represents the approximate extent of groundwater contamination and the two wells lie outside this line. The well concentrations should be provided in the document and the line of groundwater contamination should be extended beyond the two wells if any contaminants were detected. In addition, the concentrations of all the exceedences should be discussed in the text if they were important to be shown in the figure.
12. **Page 3-22, First Paragraph, Second Sentence.** It is stated in the text that the organic chemicals of concern (COCs) detected were limited to benzene, vinyl chloride (VC), and 2,4-dimethylphenol during the sixth sampling event. However, Figure 3-9 also shows ethylbenzene and Figure 3-10 shows 2-methylphenol, 4-methylphenol and phenol detected. The discrepancy should be corrected in the text.
13. **Page 3-22, First Paragraph, Third Sentence.** The text references that concentrations of trichloroethene (TCE) have decreased to below detection limits. The previous concentrations of TCE detected above detection limits during the previous sampling events are not shown on Figure 3-9. Figure 3-9 should be corrected to show the previously detected concentrations of TCE.

14. **Page 3-22, First Paragraph, Fourth Sentence.** The text states that manganese was the only inorganic chemical of concern (COC) detected above target cleanup goals during the sixth sampling event. However, the concentrations of manganese detected are not given in the text and are not provided on a figure. The manganese concentrations should be provided in the text and on a figure.
15. **Page 3-22, First Paragraph, Fifth Sentence.** The text references VOC and SVOC exceedances. The text does not express what comparison criteria was exceeded. The text should be corrected to define what comparison criteria was exceeded.
16. **Figures 3-9 and 3-10.** Figures 3-9 and 3-10 show the * symbol, and the letters U and J after detected concentration values. No legends are provided on the figures that describe the meanings of the symbol and letters. A legend should be created on the figures which includes the * symbol and letters U and J. In addition, the titles of both figures refer to exceedances, but do not describe anywhere in the figures what comparison criteria was exceeded. The figures should be corrected to define what comparison criteria was exceeded.
17. **Page 3-28, Second Paragraph, First and Second Sentences.** The text states that the Applicable or Relevant and Appropriate Requirements (ARARs) have not become more stringent since the Record of Decision (ROD) was signed. However, the new ARAR for total recoverable petroleum hydrocarbons (TRPH) in sediment is 340 mg/kg as opposed to the previous ARAR of 500 mg/kg.
18. To support an operating properly and successfully determination the Draft report should be clear that the remedial systems are in place, they are operating and that data indicates progress is evident in meeting the RAO's.

Specific Comments for Operable Unit (OU) - 3

1. **Page 4-9, Section 4.3.2.1** Recommend revising the discussion in the second paragraph regarding completed monitoring rounds and reports, it is somewhat confusing. Suggest stating when sampling started, date of first annual report, when semi-annual monitoring started and when second annual report is expected.
2. **Page 4-11, Section 4.3.3.1** The actual costs for the soil remedial action should be available since that was completed in early 1999.
3. **Page 4-24, Section 4.7** The property has not been transferred at this time. Therefore the date of 'fall of 1999' is incorrect.

Specific Comments for Operable Unit (OU) - 4

1. **Page 5-5, Section 5.3.2** The soil action has been completed. Recommend adding the correct dates.

General Comment for Operable Unit (OU)-6

1. The Draft Five-Year Review for Naval Air Station Cecil Field contains only approximately six months of groundwater sampling data for OU-6. Only three groundwater sampling events have taken place. It has been stated in the text that concentrations of contaminants have decreased over the monitoring period, however, this may be premature. It is possible that the decreases in concentrations could be due to seasonal fluctuations in groundwater. Currently, increases and/or decreases in contaminant concentrations cannot be determined because of the lack of data. A full five years of sampling data would be necessary in order to establish more accurate trends of increasing/decreasing contamination needed to draw conclusions.

As was discussed during the BCT partnering meetings, this 5-year review will concentrate on the Operable Units and Interim Measures (OU's 2, 6, and 7) that actually triggered the 5-year review and shall provide a current status update for the other Operable Units. OU-6 is one of the sites where an interim ROD/action was conducted followed by a final ROD which addressed the remaining soils and groundwater. It is suggested that either in the introductory paragraph or in the Recommendations Section a statement is added explaining that less than 5-years of groundwater monitoring data is available and that a more detailed review of the groundwater monitoring system will be conducted during the next 5-year review. This same comment is applicable to all operable units with less than 5-years of monitoring data following initiation of the remedial action.

2. The focus of the Section on OU-6 should not be on the groundwater monitoring system but on the interim action for source soils which was the action described in the 1994 Interim ROD. Examples of information that should be covered: Was it complete? Was it effective? Were the RAO's from the interim ROD met? Is further soil excavation required?

Specific Comment for Operable Unit (OU)-6

1. **Figure 6-2.** The * symbol and the letter "U" appears after some concentrations for 1,2-Dibromo-3-chloropropane in the figure. The figure should be revised to include the symbol, letter, and respective definitions for each in the legend.

General Comments for Operable Unit (OU)-7

1. The Draft Five-Year Review for Naval Air Station Cecil Field contains only approximately eight months of groundwater sampling data for OU-7. Only four groundwater sampling events have taken place. A full five years of sampling data would be necessary in order to establish more accurate trends of increasing/decreasing contamination needed to draw conclusions.

As was discussed during the BCT partnering meetings, this 5-year review will concentrate on the Operable Units and Interim Measures (OU's 2, 6, and 7) that actually triggered the 5-year review and shall provide a current status update for the other Operable Units. OU-7 is one of the sites where an interim ROD/action was conducted followed by a final ROD which addressed the groundwater and storm sewer system. It is suggested that either in the introductory paragraph or in the Recommendations Section a statement is added explaining that less than 5-years of groundwater monitoring data is available and that a more detailed review of the groundwater monitoring system will be conducted during the next 5-year review. This same comment is applicable to all operable units with less than 5-years of monitoring data following initiation of the remedial action.

2. The focus of the Section on OU-7 should not be on the groundwater monitoring system but on the interim action for source soils which was the action described in the 1994 Interim ROD. Examples of information that should be covered: Was it complete? Was it effective? Were the RAO's from the interim ROD met? Is further soil excavation required?
3. It has been stated in the text that concentrations of contaminants outside the source area have remained constant or decreased over the monitoring period, which indicates that biodegradation of Trichloroethene (TCE) is occurring. A review of the data indicates that this is not completely accurate because in some wells it has increased. Several wells outside the source area have increased in concentrations. In addition, the wells in the source area have also increased. This raises concerns that the Interim Removal Action of soils from the source area may not have been complete. If the source of contamination to groundwater is still present, then eventually the other downgradient wells outside the source area will be impacted. The text should be revised to discuss the increase in concentrations, and a recommendation should be made as how to address the increasing concentrations in the source area. This type of discussion would also support an operating properly and successfully determination.
4. The zones of influence cannot be determined for the proposed vapor extraction (VE) wells, air sparging (AS) wells, and piezometers without a frame of reference. The proposed vapor extraction wells, air sparging wells, and piezometers located on Figure 7-

7 are not shown in relation to existing monitoring wells. Figure 7-7 depicts building 313 but the building is not shown on Figure 7-6 which shows the location of the monitoring wells. Without this frame of reference, it also cannot be determined how the new vapor extraction wells and air sparging wells will impact the existing monitoring wells and thus, determine if the AS/VE system is working. The figure should be corrected to include the nearest existing monitoring wells and the source area.

Specific Comments for Operable Unit (OU)-7

1. **Section 7.3.1** There is a discussion on the Interim ROD and the Amended ROD but not the 1996 ROD for groundwater.
2. **Figure 7-1.** The figure depicts a yellow circle. The figure does not indicate what the circle represents. The figure should be revised to indicate the significance of the yellow circle.
3. **Page 7-7, Section 7.3.1, Third Paragraph, First Sentence.** The acronym "LDR" is used. Neither the text nor the acronym list defines what LDR means. LDR should be defined in the Report.
4. **Page 7-8, Section 7.3.1, First Paragraph, Fourth Sentence.** The text states that compliance will eventually be achieved through natural processes and monitoring will verify compliance. Monitoring well CEF-16-MW-45I has groundwater concentrations of 978,000 ug/l for Trichloroethene. This concentration has more than doubled since sampling began on September, 1999. The report should address this increase and the possible causes. This would be particularly important to support that the system is operating properly and successfully.
5. **Page 7-9, Section 7.3.3** Costs should be available for the interim action which was completed in 1995.
6. **Page 7-10, Section 7.4.2, Third and Fourth Paragraph.** The text states that natural attenuation indicator parameters have also increased in the source area. The types of natural attenuation indicator parameters in the source area have not been presented in the text. The types of natural attenuation indicator parameters in the source area should be provided in the text or refer the reader to the annual groundwater monitoring reports that do discuss the natural attenuation indicator parameters.
7. **Figure 7-3.** A shaded area is depicted on the figure. The legend does not indicate the meaning of the shaded area. Indicate the meaning of the shaded area in the legend.
8. **Figure 7-4 and 7-5.** The extent of TCE contaminated soil, which appear as dashed lines on the figure, is incorrect. Surface soil sample CEF-016-SS-02 (Figure 7-4) and

subsurface soil sample CEF-016-SB-02S (Figure 7-5) are outside the dashed lines of TCE contaminated soil, however, have concentrations of TCE. The figures should be revised to include these sample locations within the dashed line.

9. **Page 7-17, Section 7.4.3** A table listing changes in the ARAR/Site-Specific levels for groundwater should also be included .

General Comments on Operable Unit (OU) - 8

1. Refer to comments from sites above that apply to all sites described.