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NAS CECIL FIELD, FL
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LETTER REGARDING U S EPA REGION IV COMMENTS ON DRAFT ENGINEERING
EVALUATION/COST ANALYSIS FOR POTENTIAL SOURCE OF CONTAMINATION 49
FORMER SKEET RANGE NAS CECIL FIELD FL
11/7/2001
U S EPA REGION IV

November 7, 2001

4WD/FFB

Commander

Department of the Navy
SOUTHNAVFACENGCOM

Attn: Mark Davidson

Mail Code ES339

P.O. Box 190010

North Charleston, South Carolina 29419-9010

Subject: Draft Engineering Evaluation/Cost Analysis (EE/CA) for Potential Source of Contamination 49, Former Skeet Range, Naval Air Station Cecil Field, Jacksonville, Florida

Dear Mr. Davidson:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject document and offer the following comments:

General Comments

The EE/CA is well written and organized. The EE/CA evaluated three remedial alternatives for the Potential Source of Contamination 49, Former Skeet Range. The Contaminants of Concern (COC) at the Former Skeet Range have been identified as semi-volatile organic compounds [benzo(a)pyrene and benzo(a)pyrene equivalents] and lead in soils. The remedial alternatives evaluated were: (1) No Action, (2) Excavation to Industrial Cleanup Criteria, Off Base Treatment and Disposal, Institutional Controls and Monitoring, and (3) Excavation to Residential Cleanup Criteria and Off-Base Treatment and Disposal. Alternative 1, although instantly implementable, is not protective of human health and the environment. Both alternatives 2 and 3 would be protective of human health and the environment. However, Alternative 2 would not be protective of ecological receptors. Alternative 3, Excavation to Residential Cleanup Criteria and Off-Base Treatment and Disposal, is recommended in the EE/CA. The recommended alternative, although the most costly of the three alternatives, is appropriate since the project area has been identified as the future site of a recreation area. The recommended alternative would be easily implementable, a one time effort and require no Land Use Controls/Restrictions.

Specific Comments

1. The EE/CA should be edited for typographical errors.

2. Explanations should be provided for the abbreviations and data qualifiers used in the tables and on the figures.
3. **Page 2-24, Table 2-2.** The presentation of the “Average of Positive Detections” values is inconsistent. Values for average analytical detections are presented with no significant figures or up to six significant figures. Data presentation in the table should be consistent or an explanation of the different degree of significant figure usage for the analytical values should be provided. Further, the importance of six significant figures in some of the values presented in the table should be provided.
4. **Page 3-9, Section 3.7.** It is unclear as the methodology for determining the perimeter of excavation. It appears that an approximate halfway point was selected between a clean sample and a dirty sample and that point defined the limits of horizontal excavation. If this methodology was approved by the BCT please provide reference to the meeting minutes. In either case, a rationale should be provided for using this method.
5. As was discussed during previous BCT meetings PSC 49 should now be considered as part of Operable Unit 5 and be upgraded to “Site” 49.
6. Any discussion regarding institutional controls should include further detail. Any description of a remedial action which is to include the use of institutional controls must include the following elements:
 1. The purpose of the institutional control;
 2. The type of institutional control;
 3. How the controls will be implemented;
 4. How the controls will be enforced along with the entity responsible; and
 5. Frequency of monitoring of the institutional control.

Ecological Comments

A review of the ecological risk section and other sections of the draft document found that ecological risk issues need to be further evaluated. This review found three ecological issues which still need to be addressed before further action is performed.

1. Based on the sampling location map (Figure 2-3) and aerial photo (Figure 2-4), it appears that the extent of the potential contamination has not been fully addressed. As shown in figure 2-4, forest to the west of the area labeled “Area of Significant Lead Pellets” (Area) is different in nature from other forest areas shown on the figure. In the text, the forest to the south of the “Area” has been described as being “stunted”, but no text was found in this document discussing the forest area to the west of the “Area”. As shown on Figure 2-3, no sampling was performed in the forest to the west and this sampling should be done to determine why this forest was different in nature from the other forest areas. Based on Figure 2-4, it appears that vegetation to the west of the “Area” has been impacted and ecological effects are evident.

2. In Section 2.4.1.2, it is stated that all data evaluated in the Screening Level Ecological Risk Assessment (SLERA) only evaluated data from samples collected outside the proposed remediation areas. A SLERA must use all data to evaluate potential ecological risk and using only data from outside of the proposed remediation areas is not appropriate. Since all of the alternatives present different clean up options (from no action to removal of contaminated soils to achieve FDEP SCTLs for direct residential exposure) only evaluating samples from outside proposed remediation areas would significantly underestimate risk to ecological receptors. All data should be considered.

In Step 3a, rationale is provided for alternative lead screening values and use of average concentrations in place of maximum concentrations is presented. The issues of concern or comments with respect to some of the rationale provided are:

The text states that the screening value for lead is based on the Oak Ridge National Laboratory (ORNL) guideline of 50 mg/kg developed to be protective of terrestrial plants. Since the forest area associated with the skeet range has clearly been impacted, as shown on Figure 2-4, the use of the 50 mg/kg for lead should be the appropriate ecological values used for lead rather than the proposed alternative levels.

One additional rationale presented was the fact that average lead concentrations should be used as this value is a better measure of the concentration to which wide-ranging animals such as mammals and birds would be exposed. This may be true for wide-ranging receptors, however, for terrestrial plants and earthworms, the maximum concentration would be the appropriate concentrations to use. The team should further discuss this point.

It is stated that one of the factors taken into consideration to determine the boundaries of the proposed remediation areas was the presence of visible lead pellets, that might be ingested by birds. In addition to visible lead pellets, pellets potentially under pine needles, leaves and other vegetation at the site should be taken into consideration. Therefore, the rationale provided here would serve to underestimate potential risk to ecological receptors.

3. Text in Section 4.2 and 4.3 state that the implementation of each respective alternative would have to address potential mitigation of any impact on gopher tortoise burrows as a result of excavation. The gopher tortoise is a “keystone” species and listed by the Florida Game and Fresh Water Fish Commission (FGFWFC) as a species of special concern and by the Florida Committee for Rare and Endangerment Plants and Animals (FCREPA) as threatened. If this species is present on this site or if burrows are present indicating that gopher tortoises are actively using this site, then the Ecological Risk Assessment should proceed to Step 3 and potentially beyond to ensure that risk to this species is

appropriately addressed.

If you have any questions, please contact me at 404/562-8539 or at vaughn-wright.debbie@epa.gov.

Sincerely,

Deborah A. Vaughn-Wright
Remedial Project Manager

cc: David Grabka, FDEP
Scott Glass, SOUTHDIV
Mark Speranza, TTNUS