



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GA 30303-8960

February 27, 2002

4WD/FFB

TDEC - Division of Superfund
Attn: Clayton Bullington, RPM
5th Floor, L & C Annex
401 Church Street
Nashville, TN 37243-1538

Subject: Statement of Basis for SWMUs 1, 4, 6, 8, 10, 11, 16, 18, 21, 26, 27, 31, 36, 38, 40, 42, 44, 50, 51, 52, 53, 60, 62, 64, 66, and 67, Naval Support Activity Mid-South, Millington, TN.

Dear Mr. Bullington,

The Environmental Protection Agency (EPA) has completed review of the subject document. EPA's comments for the Statement of Basis are enclosed.

If you have any questions please contact me at 404-562-8513.

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Herndon".

Jennifer Herndon
Remedial Project Manager

Enclosure

cc: Rob Williamson, Public Works Office
Jim Morrison, TDEC - Memphis
Jim Reed, SOUTHDIV
John Stedman, Ensafe - TOM
Jack Carmichael, USGS

GENERAL COMMENTS FOR ALL SWMUs

I. The ecological risk-based rationale are unclear for the SWMUs (except where a concrete or asphalt pad is present). Many of the assessments only considered observation of the site and not a full scale ecological risk assessment. A quantitative ecological risk assessment should be conducted for the SWMUs to justify No Further Action and Limited Action decisions.

II. Section 6.0 for all SWMUs. Even though the property is intended to be used for industrial purposes, it is important to justify the No Further Action and Limited Action decisions based upon protectiveness for residential or unrestricted use. This section states that the BCT's goal is to demonstrate that human health risks were within acceptable levels for industrial use. The BCT's goal must be to demonstrate the suitability of its remedial decision, from both a human health and ecological perspective. Please revise text to clarify this point.

NO FURTHER ACTION STATEMENTS OF BASIS

Soil at several SWMUs exceeded their SSLs that are protective of groundwater (SWMUs 42, 53, 44, 50, 51, 52, and 62). However, groundwater quality is not discussed, nor is groundwater included in the baseline risk assessment. Discussion should be provided regarding exclusion of groundwater in the baseline risk assessment. Also, groundwater samples are collected from loess groundwater at some SWMUs but not at others. Please explain.

SWMUs 4, 6, 31, 38

1. Text does not describe evaluation of residential use scenario, and only describes evaluation of site worker and child trespasser scenarios. Since there is no data for residential use, it is inappropriate to state that the site poses no risk to the residential user. If there are other scenarios that are not considered protective by analogy to the described scenarios, then those also must be considered. If other scenarios were considered, but omitted, please include them. If they were not considered, the SoB must supply a reasoned basis why the site poses no risk to any user. If that cannot be supported on the basis of existing information, additional use scenarios must be considered. A decision of No Further Action is insupportable based upon the current draft of the SoB.
2. Text repeated throughout the SoBs indicates that the presence of dieldrin was most likely due to aerial application of insect control during the 1950s and 1960s, and not considered to be site-related contamination. Please clarify whether this statement is intended to convey the notion that dieldrin is a "background" phenomenon. Please address this issue in this SWMU, and SWMUs 11, 36, 62.
3. Section 3.0. Last sentence states that "Based on the isolated contamination encountered, the Navy recommended no further action for sediment . . .". Were the pesticides identified as background and screened out of the risk assessment? Please explain.

4. Section 4.0. The low risk to ecological receptors appears to be based on the fact that only songbirds are likely to be exposed. A specific bird is usually not identified in the risk assessment, but rather the entire species, i.e. avian species. Further explanation should be provided regarding the statement “. . . survey of this area did not reveal significant use of the area by terrestrial species. . .”

SWMU 11

5. Section 4.0. The statement is made that “Because the horse trails are used frequently, the terrestrial vertebrate use of this area should be limited.” Frequent use of the horse trail would not prevent exposure to other terrestrial vertebrates. A quantitative ecological risk assessment should be conducted.

SWMU 16

6. Section 4.0. The statement is made that arsenic is below background. This section states that arsenic is not considered a risk to human health, even though the residential and industrial RBCs were exceeded, because concentrations are less than background concentrations. This statement may be misleading. The better approach may be to describe the policy for not cleaning up background concentrations. But first, the Navy should verify that it is true background. Please state whether, based on risk analysis, the site poses a risk to human health for both residential and industrial use.

SWMU 36

7. Section 4.0. The statement is made that because vegetation was cleared at the site, an ecological risk assessment was not necessary because the habitat no longer exists. Clearing vegetation does not preclude conducting a risk assessment. Grassy areas are a habitat for some species such as birds, deer, etc. A quantitative ecological risk assessment should be conducted at the SWMU.
8. Section 7.0. The section omits any statements that the site poses no significant risk to ecological receptors and that the remedy is protective of the environment. This statement must be included.

LIMITED ACTION STATEMENTS OF BASIS

- I. Sections 2.0, 5.0 and 7.0 for the Limited Action SoBs. The following or similar statement is made:

"Implementation and enforcement of the SWMU ___ land use controls are detailed in the Airfield Land Use Control Implementation Plan (LUCIP), the Non-Airfield LUCIP, the airfield deed, and the non-airfield deed #___ . . ."

At the end of this sentence, the following statement should be added:

"The relevant LUCIP is incorporated by reference into this Statement of Basis to the extent of the site-specific land use controls utilized in this SWMU."

II. A general criticism of the limited action statements of basis is the recurrence of the language that since the site is slated to be used for industrial purposes, existing conditions are considered protective of human health. This statement is most often followed by the phrase "if land use controls are implemented." While this is not an untrue statement, it may lead the reader to undervalue the significance of the remedial decision selected in the statements of basis. Please see the language as revised below, which is a more accurate statement of the remedial decision described in the Statements of Basis:

According to the reuse plan prepared by the City of Millington, SWMU ___ will be reused for industrial purposes, not residential. ~~Therefore, there should be no future site residents.~~ Additionally, the loess and fluvial deposits groundwater are not used as drinking water sources at Naval Support Activity Mid-South and if future land use changes to include site residents, the drinking water supply would be a municipal water sources. Finally, use of the loess groundwater as a drinking water source is unlikely due to low yield and poor aesthetic water quality. ~~Therefore, there should not be future residents at SWMU ___ and human exposure to shallow groundwater should not occur,~~ So long as existing soil and groundwater use is maintained, there will be no unacceptable risk to human health or the environment. As part of the remedial decision for SWMU ___, land use controls have been selected which will maintain the industrial use of the property and will prevent human or surface ecological exposure to contaminated groundwater. ~~conditions are considered protective of human health for industrial land use if land use controls implemented.~~

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This notion, that the existing use *are considered* protective of human health and the environment if land use controls are implemented, should be eliminated from the SoBs wherever it occurs and revised as above.

III. Soil at two SWMUs exceeded their SSLs that are protective of groundwater (SWMU 27 and 64). However, groundwater quality is not discussed, nor is groundwater included in the baseline risk assessment. Discussion should be provided regarding exclusion of groundwater in the baseline risk assessment. Also, groundwater samples are collected from loess groundwater at some SWMUs but not at others. Please explain.

SWMU 8

9. Section 7.0. The sentence, "Above and beyond the SWMU 8 proposed remedy described here, land use control implementation plans prepared by the BCT are already in place for the transferred airfield and non-airfield parcels" may be misinterpreted to imply that the LUCIPs are not part of the remedial decision of the SoB. The land use control implementation plans are not *above and beyond* the remedy described in the Statement of Basis. Those plans are part of the remedial plan and are substantively incorporated into both the Statement of Basis and subsequent modification to the RCRA corrective action permit. Please revise the sentence to read, "Land use control implementation plans prepared by the BCT are already in place for the transferred airfield and non-airfield parcels, which address contamination at locations both including and beyond SWMU 8." Please address in SoBs for SWMUs 8,10, 18, 21, 60.
10. Section 4.0. The parenthetical states that "no carcinogenic constituents were detected in groundwater, so a hazard index ratio for noncarcinogenic levels was not calculated as part of the preliminary risk evaluation." This sentence does not make sense and appears to be a typo. Please clarify.
11. Maintaining a mowed field does not preclude conducting a risk assessment. Grassy areas serve as a habitat for birds, deer, etc. A quantitative ecological risk assessment should be conducted at the SWMU.

SWMU 27

12. Section 4.0. An ecological risk assessment was not conducted at the SWMU. Please see comments 7 and 11.

SWMU 60

13. Section 4.0. The statement is made that the ecological risk to receptors is low due to the quality of the habitat because the area will be mowed on a regular basis. Grassy areas serve as a habitat for birds, deer, etc. A quantitative ecological risk assessment should be conducted at the SWMU.
14. Section 4.0. This section introduces some confusion in describing contaminated sediment in a small adjacent wetland but does not clarify whether and how the risk posed to ecological receptors will be addressed. Please address.

SWMU 64

15. Section 4.0. The lack of ecological risk is due to the existence of a concrete pad over the entire extent of this SWMU. Please note that the remedy must impose a restriction that the concrete must be maintained and note that ecological risk will be revisited at such time as the concrete pad is removed.