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U S NAVY RESPONSES TO THE U S EPA REGION IV COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION/RCRA FACILITY INVESTIGATION REPORT SITE/SOLID WASTE MANAGEMENT UNIT 45 (SWMU 45) FORMER MWR DRY CLEANING FACILITY
MCRD PARRIS ISLAND SC
06/01/2002
TETRA TECH NUS INC

Responses to U.S. EPA Comments on the Draft Remedial Investigation/RCRA Facility Investigation Report
Site/SWMU 45 – Former MWR Dry Cleaning Facility
U.S. Marine Corps Recruit Depot Parris Island, South Carolina
June 2002

General Comments

1. **Comment:** The draft RI/RFI Report for Site/SWMU 45 demonstrates that the objectives of the approved RI/RFI Work Plan, and addenda, were met. EPA concurs with the Navy that the nature and extent of contamination at the site have been sufficiently delineated to proceed with development of a Feasibility Study for the site. After resolution of the following comments, EPA anticipates that RI/RFI will be complete.

   Response: The Partnering Team reached consensus on this point at our February 4/5 meeting. The RI/RFI will be completed as a snapshot in time. Any subsequent information will be provided in treatability study reports or during remedy evaluation.

2. **Comment:** Even though the potential for exposure is limited for ecological receptors, a Screening-Level Ecological Risk Assessment (SERA) should still be conducted for this (and all) sites. Given the size and exposure potential for this site, this exercise should be limited to presenting a comparison of contaminants found in surface soil samples to the EPA Region 4 ecological screening values. The conclusions drawn after this comparison are expected to coincide with the ones currently made in the document.

   Response: Utilizing the EPA's 1997 guidance document, *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments*, EPA 540-R-97-006, the Navy determined that the SERA does not proceed beyond Step 1. This is because the Guidance states 'If an exposure pathway is not complete for a specific contaminant, that exposure pathway does not need to be evaluated further. The Site/SWMU 45 RI/RFI Workplan (February, 2001) states on page 5-2 that 'The surface soil exposure route is not considered to be complete, since the site is largely paved or covered with buildings.' The Navy will provide this justification in the revisions to the RI/RFI Report.

3. **Comment:** Based on the data presented, EPA agrees that natural attenuation processes are active at the Site 45. The natural attenuation data presented strongly supports a "mixed" plume behavior and that sequential anaerobic (source area)-aerobic (down gradient of source area) and/or possibly cometabolic processes are the primary mechanisms of biodegradation for chlorinated solvents at the site. However, as indicated by contaminant fate and transport modeling, natural attenuation alone will not control plume migration or provide timely contaminant reductions that will be protective of human health and the environment. Additionally, due to the use of literature values and subsequent calibration of the BIOSCREEN and BIOCHLOR models, future fate and transport modeling efforts should include a sensitivity analyses, and, due to the uncertainty in some model input parameters, EPA recommends that a sensitivity analysis be performed for the first order decay coefficients, adsorption and dispersion parameters, as needed.

   Response: A sensitivity analysis will not be performed at this time. Rather, if future remedy evaluations require additional groundwater modeling information, the information will be developed at that time.

Updated Post 01May03 Pope email: *If the Navy pursues an MNA or partial MNA remedy at this site, these analyses will be conducted as part of the FS/PP/ROD or possibly in a Treatability Study.*

4. **Comment:** Within the body of the RI, it is indicated that a long-duration pump test is being planned, and, since the field work for the Draft RI is complete, it is assumed this will be part of FS data collection. Clarify if the test will be completed and in which document the test results will be reported.

   Response: The revisions to the RI/RFI Report will include the following: 'A long-duration pump test has not been conducted to date because the controls for the currently-inactive system still will not allow automatic system operation which is necessary for the test. If the system is returned to operability and a long-duration pump test is necessary for pumping remedy evaluation, the test will be conducted and documented in the Feasibility Study.'

Specific Comments

1. **Comment:** Page vii, Figures. The title for Figure 3-11 incorporated the title for Figure 4-1 as well. Please review as appropriate.

   Response: The document Table of Contents will be revised to address the error.

2. **Comment:** Page ix, Acronym List. The acronym for Marine Corps Recruit Depot is listed as MCRC; please revise to MCRD.

   Response: The acronym will be corrected to MCRD.

3. **Comment:** Page ES-3, 3rd Bullet, 4th Sentence. The parenthetical notation "except surficial groundwater" appears out of place in a summary of soil contamination. Clarify whether this is intended to refer to soil beneath the water table.

   Response: The parenthetical will be deleted from the 3rd bullet. A new bullet will be inserted between the current 3rd and 4th bullets:

   - The human health risk assessment indicated that surficial groundwater consumption resulted in unacceptable excess risk for the on-site child resident, the on-site adult resident, and the on-site lifelong resident based on vinyl chloride, TCE and PCE contamination. The HI for surficial groundwater for the child resident (248) and the adult resident (224) exceeded the acceptable level of 1.0.

   A corresponding correction will be provided in Section 7 – Conclusions and Recommendations.

4. **Comment:** Page 1-2, Section 1.3, 2nd Paragraph, 1st Sentence. An adequate justification for not performing an ecological risk assessment as part of the baseline risk assessment for this site is not provided. While EPA generally concurs with the Navy's position that there is not a complete exposure pathway between the contaminated site media and any identified ecological receptors, a SERA should be performed as discussed in General Comment 2. The inclusion of a SERA should be clearly stated and justified early in the RI Report.

Response: Please see the response to EPA's General Comment #2.

5. **Comment:** Page 1-5, Section 1.4.3, 4th Paragraph, 3rd Bullet. The abbreviations "SL" and "SU" appear to be associated with the wrong descriptions. Please revise as appropriate.

   Response: The text will be revised to address the abbreviations being associated with the wrong descriptions.

6. **Comment:** Page 1-6, Section 1.4.3, 5th Paragraph. Include additional detail regarding the periods of operation, the amount of contaminant removed, and technical problems with the existing pump and treat system. As an apparently viable alternative for controlling and remediating groundwater contamination appears to be turning the existing system back on, a more thorough understanding of prior experience with the system is necessary.

   Response: The following information will be included in the RI Report revisions:

   UPDATED Post 01May03 Pope email (see italics): The groundwater pump and treat system start-up occurred in April, 1998. The system operated through early 2000, with increasing downtime for maintenance activity. *Some of the maintenance problems that were encountered included recurring electrical control issues and silt packing up manifolds and pumps.* Finally, following removal from operation sometime in early 2000 for maintenance, the system was simply not restarted. *The total volume of water that was removed by this system was 1,056,410 gallons, based on the final operation and maintenance logsheet.* Four submersible pumps operated at 2 to 5 gpm each through variable speed controls linked to water level sensors installed in the sump of each well. Groundwater was pumped from the wells to a multi-tray air stripping unit rated at 6 to 15 gpm. The system operated in fully automatic mode, and featured remote monitoring and control.

7. **Comment:** Page 3-10, Section 3.2.11, 4th Paragraph, 4th Sentence. Clarify the rationale for only qualifying the duplicate and associated environmental sample when there are quality control exceedances. Typically, the batch associated with the off-normal QC sample would be qualified, particularly if only limited validation is performed. A tabular summary by analyte, media and/or sample delivery group of the number of analyses and the number exceeding the various QC criteria would be helpful.

   Response: The EPA National Functional Guidelines for Evaluating Organic Data does not require the qualification of environmental samples based upon field duplicate imprecision. TtNUS however, does evaluate field duplicate samples and qualifies the sample pair if precision criterion (Relative Percent Difference >30% for aqueous media; >50% for soil media) have been exceeded. The rationale for qualifying only the field duplicate pair is based upon the unique representativeness of the sample in question. In particular, soil samples will exhibit heterogeneity. Imprecision of aqueous sample analyses, although less heterogeneous, will still be influenced by factors such as turbidity variances. Because the heterogeneity from sample to sample can vary greatly, the automatic qualification of samples across an entire batch for field duplicate imprecision is not recommended. Furthermore, qualification of samples other than the field duplicate pair may imply a quality problem that does not exist.

   A tabular summary by media of the number of analyses and the number exceeding the various QC criteria has been developed and will be included in Appendix D-1, Data Validation Letters. The table is also attached to this letter.

8. **Comment:** Page 3-12, Section 3.2.11, 2nd Paragraph. A comparison of the volatile organic compound analytical results from the temporary well/quick-turnaround (QT) laboratory and the permanent well/standard laboratory analyses would be useful. Co-located samples would aid in evaluating any analytical bias that may be present, and comparison of the range of results would provide insight into the representativeness of the data used for risk assessment. The results of Membrane Interface Probe (MIP) analysis could be included as well to evaluate the efficacy of that technology. While this discussion may be more appropriate in Section 4, the Navy needs to perform these comparisons.

   Response: Comparison tables have been developed and will be included in Section 4 (per EPA comments 11 and 12). The tables are also attached to this letter. The following text will be included in Section 4.3 to introduce the tables:

   A comparison of groundwater VOC data was conducted between permanent monitoring wells analyzed using a quick turn-around-time (TAT), and groundwater samples collected from permanent wells using a standard TAT. In addition, temporary wells were also compared if co-located within a reasonable distance to the associated permanent monitoring well cluster. This comparison was conducted to determine whether any bias existed between analytical results of samples with different TAT, and between samples collected from permanent wells versus temporary wells. Each set of samples were grouped together to compare their respective PCE and biodregradation products (TCE; cis-1,2-DCE; trans-1,2-DCE; VC) (see Table 4-5). Comparing the analytical data between the two TATs proved to be questionable. Because the samples were collected 4-7 months apart, it is difficult to discern any trends or biases in the data as being attributed to sample quality dictated by TAT, from biodegradation or contaminant migration during that time interval. Comparing analytical results between permanent wells and temporary wells sampled during the same event and screening within similar intervals could be evaluated with more confidence, however, this scenario was not apparent in most cases.

   A comparison of the Membrane Interface Probe (MIP) data logs to the groundwater analytical was also conducted. MIP data logs were conducted for TW31 through TW35 measuring Photoionization Detector (PID), Flame Ionization Detector (FID), and Electronic Capture Detector (ECD) readings in situ during boring installation. Based on the MIPS data logs, depth intervals with elevated detections were selected for sampling. The groundwater analytical data and the data logs correlate such that samples selected for analysis based on the MIP data logs indicated elevated concentrations of VOCs above USEPA MCLs, particularly PCE and TCE. One exception was TW35 where an elevated FID Detector reading was observed at 19 and 21 feet below ground surface. Groundwater at this boring was sampled below this interval at the FID reading corresponded with a clay layer. The results of the groundwater sample from TW35 indicated no elevated VOC concentrations. See Table 4-6 for a summary of the MIP data compared to the groundwater analytical results.

9. **Comment:** Page 3-14, Section 3.3, 3rd Paragraph, 1st Sentence. Figure 3-5 (cross-sectional transect B-B') was missing from the review copy of the report.

   Response: Figure 3-5 is attached to this letter and will be included with the RI/RFI Report revisions.

10. **Comment:** Table 3-1, Groundwater, 2nd Row, 4th and 5th Columns. There appears to be a discontinuity between the number of samples included in the investigation activity (9) and the number of samples listed (5). Clarify.

    Response: Column 4 will be revised to read "Four shallow and one intermediate well."

11. **Comment:** Table 3-3, Page 3 of 3. As noted in Specific Comment 8, a comparison of QT and MIPs data for wells PAI-45-TW31 through TW35 should be performed, and wells PAI-45-MW-06SU and PAI-45-MW-08SU offer co-located analyses for comparison of QT and standard laboratory results.

    Response: See response to Comment 8.

12. **Comment:** Page 4-5, Section 4.3, 2nd Paragraph. As noted in Specific Comments 8 and 11, comparison between groundwater VOC analytical methods and results should be included in this discussion rather than in Section 3.

    Response: See response to Comment 8.

13. **Comment:** Page 4-6, Section 4.3, 1st Paragraph, 3rd Sentence. Elaborate on the timing and significance of the "other investigations" relative to the RI and its conclusions.

    Response: The sentence 'Note that in other investigations, elevated concentrations of some VOCs were detected downgradient of the 'non-detect' contour depicting the current results.' will be replaced with the following: Note that in subsequent October 2001 sampling to support the natural attenuation sampling, elevated concentrations of some VOCs were detected downgradient of the 'non-detect' contour depicting the RI/RFI sampling results.

14. **Comment:** Page 4-6, Section 4.3, 3rd Paragraph. Include within this section a discussion of the distribution of PCE and its degradation products within the surficial aquifer.

    Response: The following discussion will be added at the end of Section 4.3:
    At Site 45, MW08SU and MW07SU are considered source area wells, while MW06SU, MW05SL, and MW04SU are located progressively further downgradient from the source area. PCE and TCE concentrations drop off significantly from MW08SU to MW06SU while DCE and VC concentrations remain similar. Further downgradient at wells MW05SL and MW04SU, the dropoff of DCE and VC concentrations is greater than that of PCE and TCE.

    PCE concentrations, as well as its degradation products (TCE, cis 1,2-DCE, and VC), are most evident within the upper surficial aquifer (0'-10') with the highest detected concentrations around the areas of MW08SU, and MW07SU and TW11. These plumes appear to be separate and are well defined by the surrounding temporary wells. Concentrations decreases with downgradient groundwater flow. Similar conditions are observed within the lower portion of the surficial aquifer (11'-20').

15. **Comment:** Page 4-7, Section 4.3, 3rd Paragraph. Include a reference to the location of the natural attenuation study (Section 5.4) in the text.

    Response: Text is already being added to the end of Section 4.3 to address Comment 8. Following those insertions, the following will be added:

    See Section 5.4 for information detailing the Site 45 natural attenuation study.

16. **Comment:** Section 4-7, Section 4.4, 1st paragraph, 1st Sentence. It is recommended that this sentence be re-worded in part to clarify the findings. Specifically: "...soils and groundwater above screening levels in all three identified potential source areas."

    Response: EPA's suggested rewording will be utilized.

17. **Comment:** Page 4-7, Section 4.4, 4th Paragraph, 1st Sentence. Clarify the impacted groundwater referred to is groundwater contaminated above screening levels.

    Response: The parenthetical (i.e., groundwater contaminant concentrations above screening levels) will be inserted in the sentence following the existing '...at site 45 has impacted groundwater'.

18. **Comment:** Pages 4-7 and 4-8, Section 4.4, 1st Paragraph. Include in the summary discussion of the nature and extent of contamination an estimate of the area and volume of soil and groundwater contaminated above screening levels (or other proposed action levels).

    Response: The following text will be added in Section 4.4:

    The area of soil contaminated exceeding USEPA screening levels was calculated for surface and subsurface intervals. Contaminated surface soil was estimated at 1,305 cubic feet or 48 cubic yards. Contaminated subsurface soil was estimated at 1,442 cubic feet or 54 cubic yards.

    Volume of contaminated groundwater exceeding USEPA MCLs was calculated for the upper and lower surficial aquifer. Contaminated groundwater within the upper surficial aquifer was estimated at 266,000 cubic feet. Contaminated groundwater within the lower surficial aquifer was estimated at 74,700 cubic feet.

    Calculations for the area and volume of impacted soil and groundwater will be provided in new Appendix G.

19. **Comment:** Page 5-5, Section 5.3.1, 2nd Paragraph, 1st Sentence. It is recommended that the Navy use PCE for an example of a dense non-aqueous phase liquid, as used in dry cleaning facilities, due to its applicability to this site.

    Response: The replacement suggested by EPA will be made.

20. **Comment:** Page 5-6, Section 5.4.1. Another line of evidence for biodegradation is the amount of cis-1,2-DCE relative to trans-1,2-DCE. Biodegradation of TCE results in the production of exclusively cis-1,2-DCE. Please comment on the site specific cis-1,2-DCE and trans-1,2-DCE ratios and whether they support the contention that biodegradation is occurring.

    Response: The following text will be included in Section 5.4.1:

    Evaluating the ratio of cis-1,2-DCE to trans-1,2-DCE is another way of determining whether the biodegradation of TCE is occurring. Typically the biodegradation of TCE will result in higher concentrations of cis-1,2-DCE when compared to concentrations of trans-1,2-DCE. When evaluating groundwater data collected during the RI, samples with positive detects indicate a higher ratio of cis-1,2-DCE to trans-1,2-DCE. Samples collected from temporary wells TW01 through TW25 during March and April 2001, indicated a cis-/trans- ratio ranging from 4:1 to 124:1. The highest ratios were observed at TW14 (124:1 and 47:1), which is located approximately 50 feet downgradient of a source area (MW07).

    Samples collected from temporary wells TW24 through TW35 and monitoring wells MW06SU/SL through MW08SU/SL during June 2001, indicated cis-/trans- ratios ranging from 5:1 to 160:1. The highest ratios were observed at MW06SU/SL (85:1 and 160:1 respectively) and TW31 (68:1). These locations are also located downgradient of a source area (MW07).

    Samples collected from monitoring wells MW01SU, MW04SU, MW05SL, MW06SU, and MW08SU during October 2001, indicated cis-/trans- ratios ranging from 24:1 to 64:1. The highest ratios were observed at MW06SU (64:1) and MW08 (24:1). MW06 is located downgradient of the plume observed at MW07, and MW08 is located in the smaller plume to the north around the former AST area.

    Given the ratios of cis-1,2-DCE to trans-1,2-DCE observed in the groundwater samples, it's reasonable to assume that TCE biodegradation is occurring particularly within the source areas and downgradient of the source areas.

21. **Comment:** Page 5-7, Section 5.4.1, 2nd Paragraph, 3rd Sentence. Justify the inclusion of lower-surficial well MW05SL in the transect of upper-surficial wells used to assess natural attenuation.

    Response: Based on historic information, monitoring well MW05SL was observed to contain greater concentrations of VOCs than MW05SU. This data suggests than MW05SL is a more appropriate down gradient monitoring well than MW05SU.

22. **Comment:** Page 5-7, Section 5.4.1, 2nd Paragraph, 5th Sentence. Clarify that an alternate interpretation of the observed pattern may be that little degradation is taking place, and the observed changes in concentration are attributable to physical processes of dispersion and dilution (and treatment?).

    Response: An additional sentence will be added to the discussion: 'An alternative interpretation of the observed pattern may be that little degradation is taking place, and the observed changes in concentration are attributable to physical processes of dispersion and dilution, possibly influenced by past operation of the groundwater pumping system.'

23. **Comment:** Page 5-8, Section 5.4.2, 1st Paragraph, 3rd Sentence. Please verify that the "upgradient well" is a "background" well and represents conditions outside of the contaminant plume.

    Response: The well is as close to a background well as feasible at the facility. Utilities, roadways, and buildings restrict placing background wells in more strategic locations, (i.e. 30 to 50 feet to the

west). Since there are no known unique sources of contamination hydraulically up gradient of the MW01 well cluster or the site, the plume is relatively wide (100 feet across) and groundwater from this cluster flows onto parts of the site, and the MW01 cluster wells do not contain detectable concentrations of site contaminants, this well cluster was selected as the up gradient well for the site.

24. **Comment:** Page 5-9, Section 5.4.4. Trends in contaminant concentrations as presented in the time/concentrations graphs in Appendix E, Attachment B could better be represented or identified if the contaminant concentration data were plotted as a logarithmic function over time.

    Response: The data will be plotted as a logarithmic function in the RI/RFI revisions. Please also see the response for comment 35.

25. **Comment:** Page 5-9, Section 5.4.4, 1st paragraph, 5th Sentence. Clarify whether the period and duration of groundwater extraction system operation was sufficient to attribute the observed drop in concentration.

    Response: Documentation indicates that the system operated for approximately two years. It is reasonable that operation for this period of time provided the benefit indicated. Since operation was intermittent, a more quantitative response is not possible.

26. **Comment:** Page 5-10, 3rd Complete Paragraph. The text states that the BIOSCREEN model was run assuming a residual source mass of 100 kg. As reported, based on the consistency of source area concentrations, there may be a continuing source of contaminant to groundwater. Please discuss if the BIOSCREEN modeling results may be biased low because a finite source mass of 100 kg was assumed and utilized in the model.

    Response: A new 3rd paragraph final sentence will be added: 'The BIOSCREEN model results may be biased low because a finite source mass of 100 kg was assumed and utilized in the model.'

27. **Comment:** Page 6-1, Section 6.0. Include a SERA, and appropriate justification for not performing a Baseline Ecological Risk Assessment in the Baseline Risk Assessment section.

    Response: Please see the response to EPA's General Comment 2.

28. **Comment:** Page 6-5, Section 6.1.2.1, 3rd Paragraph. Please clarify that the chemicals identified at concentrations in excess of EPA SSLs were retained as chemicals of potential concern (COPCs).

    Response: 'Chemicals identified at concentrations in excess of EPA SSLs were retained as COPCs.' will be added as the last sentence of the paragraph.

29. **Comment:** Page 6-6, Section 6.1.2.2, 1st Paragraph, 2nd Sentence. As noted in an earlier Specific Comment, it should be clarified that these chemicals are retained as COPCs.

    Response: 'Chemicals identified at concentrations in excess of EPA SSLs were retained as COPCs.' will be added as the last sentence of the paragraph.

30. **Comment:** Pages 6-8 and 6-9, Section 6.2.3.1, 2nd Paragraph, 4th Sentence. Based on text in Section 6.1.2.1 and on Table 6-2, these chemicals did not exceed EPA SSLs for soil to air. Please revise the text as appropriate.

    Response: Agreed. The sentence will be revised as follows: "Based on the qualitative screening, maximum detected concentrations of PCE and TCE in subsurface soil exceeded the soil to air SSLs; therefore, exposure via inhalation was evaluated in the risk assessment."

31. **Comment:** Page 6-28, Section 6.4.2, 4th Paragraph, 1st Sentence. Clarify that 7.5 X 10-7 is below the acceptable EPA risk threshold of 1 X 10-6.

    Response: The first sentence will be replaced by: The estimated cancer risk for maintenance workers exposed to surface soil was 7.5×10^{-7}, which is below the acceptable EPA risk threshold of 1×10^{-6}.

32. **Comment:** Page 6-29, Section 6.4.2, 3rd Paragraph, 1st Sentence. Clarify that 2.7 X 10-7 is below the acceptable EPA risk threshold of 1 X 10-6.

    Response: The first sentence will be replaced by: The estimated cancer risk for adult visitors exposed to surface soil was 2.7×10^{-7}, which is below the acceptable EPA risk threshold of 1×10^{-6}.

33. **Comment:** Page 6-31, Section 6.5.1, 1st Paragraph. Another source of uncertainty may exist in the differences between the contaminants and concentrations detected by the QT and by the standard laboratory analyses (e.g. benzene in deep groundwater, TCE at a maximum concentration of 13,000 ug/L rather than 1,000 ug/L, and DCE at a maximum concentration of 14,000 ug/L rather than 4 ug/L.). For this reason the selected COPCs may not represent the entire range of contaminants, and the maximum concentrations used for risk assessment may underestimate the actual maximum concentrations.

    Response: The clarification requested by EPA will be added to the discussion by including EPA's comment language verbatim as a stand-alone second paragraph in Section 6.5.1.

34. **Comment:** Page 6-33, Section 6.5.2.2, 1st Paragraph, 2nd Sentence. As noted in an earlier Specific Comment, the maximum detected concentrations observed during the QP phase of the RI are significantly greater than those used during the risk assessment. For this reason, uncertainty over the representativeness of exposure point concentrations based on "maximum" concentrations may be overstated.

    Response: The section will be revised as follows: 'For some chemicals in surface soil, surficial groundwater, and deep groundwater, the distribution of the chemical was not defined and the maximum detected concentration was used as the exposure point concentration. As a result, the estimations of risk, where the maximum concentrations were used as the exposure point concentrations, may be overstated because it is unlikely that potential receptors would be exposed to the maximum concentration over the entire exposure period. Conversely, in some areas where the maximum detected concentrations observed during the QP phase of the RI are significantly greater

than those used during the risk assessment, the uncertainty over this representativeness may be overstated.'

35. **Comment:** Appendix E-1, Page E-5, Section 2.4.1. Trends in contaminant concentrations as presented in the time/concentrations graphs could better be represented or identified if the contaminant concentration data were plotted as a logarithmic function over time.

    Response: Most of the time/concentration graphs provided in Appendix E-1 are already plotted as a logarithmic function over time. Graphs that were plotted using a normal maximum/minimum scale have been replotted using a logarithmic scale and will be provided as change pages.

36. **Comment:** Appendix E-1, Page E-6, Section 2.4.2, 2nd Paragraph, Last Sentence. BIOSCREEN not only allows for a decaying source over time as stated in this section, but also allows for an infinite or continuing source mass.

    Response: Agreed. The text will be revised by inserting EPA's comment verbatim into the 2nd paragraph.

37. **Comment:** Appendix E-1, Page E-7, 1st Complete Sentence. As reported in the text, it is true that the BIOSCREEN model does not allow the user to define specific distances from the source area to be directly entered into the model. However, by adjusting the modeled area length input parameter, comparative points or distances from source area can be matched to the site-specific field data. The Navy should use this approach.

    Response: At this time, the Navy does not feel there is value in refining the modeling presentation. Rather, if future remedy evaluations require additional groundwater modeling information, the information will be developed at that time.