



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

December 7, 2006

Mr. Thomas Macchiarella, Code 06CA. TM  
Department of the Navy  
Base Realignment and Closure  
Program Management Office West  
1455 Frazee Road, Suite 900  
San Diego, CA 92108-4310

**Re: Review of the Draft Site Inspection Report, Transfer Parcel EDC-12,  
Alameda Point, Alameda, California, October 2006**

Dear Mr. Macchiarella:

The U.S. Environmental Protection Agency (EPA) Region 9 has received the Draft Site Inspection Report, Transfer Parcel EDC-12, Alameda Point, Alameda, California, dated October 20, 2006. We have reviewed the aforementioned document and our comments are enclosed.

If there are any questions, please feel free to contact me at (415) 972-3002.

Sincerely,

A handwritten signature in black ink, appearing to read "Xuan-Mai Tran", with a long, sweeping underline.

Xuan-Mai Tran  
Remedial Project Manager  
Federal Facilities and Site Cleanup Branch

cc: Andrew Baughman, BRAC PMO, West  
Erich Simon, SFRWQCB  
Dot Lofstrom, DTSC Sacramento  
George Humphreys, RAB Co-Chair  
Peter Russell, Russell Resources, Inc.  
Suzette Leith, EPA  
John Chesnut, EPA

**Review of the Draft Site Inspection Report, Transfer Parcel EDC-12,  
Alameda Point, Alameda, California, October 2006**

**GENERAL COMMENTS**

1. The text of Section 4 states “Appendix A presents the data used in this Site Investigation (SI) Report.” However, it is difficult to determine which samples and concentrations presented in Appendix A, Table A-1 were actually used to evaluate site conditions. Additionally, not all samples included in Appendix A are listed on the Figures. This may be because the sample locations are being evaluated as a part of another IR site or Corrective Action Area (CAA); however, this is not clearly indicated in the tables in Appendix A. Perhaps samples not evaluated or included in this SI Report could be identified the tables in Appendix A or elsewhere in the report to avoid confusion.
2. Sample locations for samples collected from areas not addressed in this SI are not included in the Figures. Because these sample locations and their concentrations are unknown, it is not possible to evaluate whether additional sampling might be necessary in portions of Economic Development Conveyance (EDC)-12 that may be adjacent to these sampling locations. For example, it is important to know the location of a sample with concentrations that exceeded screening levels just outside the border of a Parcel within EDC-12 in order to determine whether additional investigation was warranted within the EDC-12 Parcel. Please include sample location information on the figures for samples collected near the borders of EDC-12, particularly if the sample concentration data is presented in Appendix A.
3. The SI Report indicates a zonewide assessment of potential impacts from the historical railroad was conducted at the site as a part of the environmental baseline survey (EBS); however, limited information is presented on this assessment in the text of this SI report. This railroad is generally located upgradient of EDC-12 and yet groundwater samples were not generally collected as a part of the assessment. Please revise the report to include a discussion of the assessment of potential impacts from the historical railroad. Additionally, please revise the text to include recommendations to address potential groundwater impacts to parcels located downgradient of the railroad.
4. Previous investigations focused largely on soil sampling beneath EDC-12; however, based on the information presented in this SI Report, there appears to be a lack of data to adequately assess groundwater conditions beneath the parcels. Please revise the recommendations to include additional groundwater sampling at a number of parcels, as detailed further in the specific comments section.
5. A number of parcels described in this SI Report were previous used for aircraft parking. Historically, aircraft were commonly washed down with trichloroethene (TCE) or other solvents in aircraft parking areas as a part of routine maintenance activities. Therefore, areas previously used for aircraft parking have the potential to be impacted by VOCs. The specific comments below address parcels that are recommended for further investigation based on this type of previous usage.

6. It is clearly stated that no ecological risk assessment activities will be conducted for EDC-12 based on lack of sufficient ecological habitat. However, complete supporting information regarding the lack of ecological habitat is not provided in the SI Report, such as documentation, habitat maps, field notes, and pictures from the site visit conducted on June 16, 2004. Please revise the SI Report to include additional information to support the claim that sufficient ecological habitat does not exist at EDC-12. These revisions should include discussion detailing the information obtained from the 2004 site visit, and inclusion of that report as an Appendix in the SI Report.

In addition, a detailed map should be provided to show the actual land use/habitat type for each “sub-parcel.” For example, in Figure ES-2, the land use at Parcel 159 appears to be comprised of a few buildings and roads, with over approximately 95% of land use for the site remaining unknown. Information should also be included in the document to clarify the size of each sub-parcel, and the percent land use for each sub-parcel.

Finally, in order to verify that there are no complete ecological exposure pathways at EDC-12, information in addition to Section 6.0 should be provided in the SI Report, following the format provided in *Appendix B, Representative Sampling Guidance Document, Volume 3: Biological*, in the 1997 *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (EPA 540-R-97-006, June), specifically, *Appendix A – Checklist for Ecological Assessment/Sampling*. The SI Report should also indicate that appropriate personnel conducted the site visit (e.g., an experienced ecologist). Please revise the SI Report to address these issues.

7. Of the 54 acres that comprise EDC-12, one acre has been designated as “urban” habitat. However, it is not clear where this habitat is located, the type of ecological features present within this area (e.g., contiguous lawn/field, shrub complexes, stands of trees, among others), if there are soil sampling results from this area, and complete information why this area is not considered a potentially complete exposure pathway to ecological receptors has not been provided. In addition, as noted within the SI Report, urban habitat can provide a travel corridor for ecological receptors. Therefore it is important to understand the spatial relationship of this corridor habitat to other more important habitats (e.g., grassland, coastal shrub-scrub, and wetland habitats) in order to establish the ecological value for the corridor habitat as a whole. Provision of this information will clarify if this urban habitat represents a concern for ecological receptors, and will aid in determining if a screening-level ecological risk assessment (SLERA) is necessary. Please revise the SI Report to provide this information.
8. It does not appear that discussion has been included in the SI Report regarding future use of EDC-12, including information on how the site will be managed such that all potential pathways to ecological receptors will remain incomplete once the EDC-12 is transferred. Although complete exposure pathways might not presently exist, changes in land use could result in ecological exposures to contaminated soils, and therefore these potential pathways must be addressed in some fashion (e.g., deed restrictions, institutional

controls). Please revise the SI Report to include a discussion of potential future ecological exposures, and how this concern will be addressed.

9. The SI Report does not include complete information on the precipitation-driven runoff and ground water to surface water discharge pathways. It is important to address these pathways as contaminants can be transported from EDC-12 via precipitation-driven runoff and associated soil (sediment) loads, contaminated subsurface soil to groundwater, or groundwater to surface water pathways. These contaminated media may be discharged to surface water bodies such as the Oakland Inner Harbor or San Francisco Bay and therefore represent a potential ecological exposure pathway. Please modify the SI Report to discuss these potential ecological exposure pathways.
10. It is stated in the text that no sensitive habitats or Threatened and Endangered (T&E) species occur in the EDC-12 Parcel. No information is provided in the SI Report detailing how this determination was made, such as results of site-specific sensitive habitat and T&E surveys, documentation of data base searches, and consultations with appropriate local, state, and federal government agencies, among others. Therefore, it is not possible to corroborate the claim that no sensitive habitats or T&E species exist at or near the site. Please revise the SI Report to include this information.

#### **SPECIFIC COMMENTS**

1. **Section 1.4, Transfer Parcel EDC-12 Description and History, Page 1-3 and Figure 1-3, Transfer Parcel EDC-12 and Adjacent Areas:** The text states that certain EBS parcels within the CAAs are not included in this report, but Figure 1-3 does not include the EBS parcel numbers and there are no Section 1 figures with EBS parcel numbers, so it is difficult to follow the text in this section. Please revise Figure 1-3 to include EBS parcel numbers.
2. **Executive Summary, Page ES-2; Section 4.0, Evaluation of Existing Data, Page 4-2; Section 4.5, Metals, Page 4-4; Table 3-3, Background Levels of Metals in Shallow Groundwater at Alameda Point; and Appendix A, Table A-1 Groundwater Samples, Page 16:** The text of the SI Report indicated in several cases that groundwater screening levels were not exceeded; however, several groundwater samples listed in Appendix A, Table A-1 had concentrations greater than screening criteria. The first sentence in Section 4.5 states, "No metals were reported in groundwater at concentrations above screening criteria (including background levels)." However, groundwater sample 37-MW-MW1-D4632 collected from station 37-MJ-MW1 in EBS Parcel 138 had a zinc concentration of 200 µg/L, which exceeds the background level for zinc of 36.39 µg/L. In addition, several grab groundwater samples from EBS parcel 138 had several metals at concentrations that exceeded the background levels. Please revise the text to acknowledge these exceedences.

In addition, groundwater samples 030-CAP-167 collected from station CA11-21, 030-CAP-168 collected from station CA11-22, 030-CAP-169 collected from station CA11-23, and 030-CAP-170 collected from station CA11-24, in EBS Parcel 155C had gasoline

concentrations of 4600 µg/L, 36,000 µg/L, 5000 µg/L, and 32,000 µg/L, respectively. These concentrations exceed the environmental screening levels (ESLs) of 100 µg/L. These samples may be among those being evaluated separately as part of CAA-11B; however, it would be helpful if these were clearly identified in the table.

3. **Section 4.0, Evaluation of Existing Analytical Data, Page 4-1:** The third bullet on page 4-1 states that only the most recent groundwater data for each analyte was presented in this report. This approach does not take potential seasonal fluctuations of groundwater contaminant concentrations into account. Please include a general discussion of contaminant concentration trends and confirm that these trends are stable and that groundwater contaminants are not prone to seasonal fluctuations.
4. **Section 4.0, Evaluation of Existing Data, Page 4-2; Table 2-3, Background Levels of Metals in Shallow Groundwater at Alameda Point; and Appendix A, Tables A-2 (Soil Samples EBS Parcels 138, 140, 141, 150, 150B, and 151) and A-3 (Soil Samples EBS Parcels 153, 154, 155C, 159, 201, and 202):** A number of soil samples presented in Tables A-2 and A-3 contained concentrations that exceeded screening levels. These samples were not addressed in Section 4, possibly because they were included as part of the investigations in other IR sites or CAAs. However, this is not clearly stated in the text or tables and creates confusion. Please clarify why the following exceedences were not addressed in the text. If the samples were addressed as a part of other sites, please identify these samples on Tables A-2 and A-3, or prepare a separate table summarizing these exclusions.

Soil sample 030-S07-008 collected from Station 030-S07-008 in EBS Parcel 155C had a gasoline concentration of 2,000 milligrams per kilogram (mg/kg) which is above the residential and industrial ESLs of 100 mg/kg (Table A-3, page 56).

Soil samples 150-0017 and 150-0017M collected from Station 150-Z19-017 in EBS Parcel 150 had motor oil concentrations of 6,200 mg/kg and 50,000 mg/kg, respectively, which are above the residential ESL of 500 mg/kg and the industrial ESL of 1,000 mg/kg. (Table A-2, page 62)

Soil sample 584-IZ collected from Station 584-1-MOJ in EBS Parcel 150 had a diesel concentration of 1,500 mg/kg which is above the residential ESL of 500 mg/kg and the industrial ESL of 1,000 mg/kg (Table A-2, page 68).

Soil samples 584-MW1V (Station 584-MW1), 584-MW2V (Station 584-MW2), and 584-MW3V (Station 584-MW3) in EBS Parcel 150 each had benzene concentrations of 6 mg/kg which is above the residential preliminary remediation goal (PRG) of 0.64 mg/kg and the industrial PRG of 1.4 mg/kg for benzene (Table A-2, page 73).

5. **Figure 4-1, Sampling Locations in Transfer Parcel EDC-12; and Appendix A, Table A-2, Soil Samples EBS Parcels 138, 140, 141, 150, 150B, and 151; Page 74:** Soil samples 584-E (Station 584-E), and 584-W (Station 584-W) in EBS Parcel 150 both had diesel, gasoline, jet fuel #5 (JP-5), and motor oil concentrations above the ESLs. These

may be outside of the scope of this SI Report, but including their locations on Figure 4-1 would be useful in order to determine their locations relative to Parcel 150 and whether parts of Parcel 150 near them would require additional investigation.

6. **Figure 4-1, Sampling Locations in Transfer Parcel EDC-12; Figure 7-1, Areas Recommended for No Further Evaluation and Areas of Concern; Attachment A, Figure B3-1, SWMUs Located Within EDC Parcel 12; and Attachment A, Figure B3-3, EBS Parcel 150 Sampling Results:** The placement of generator accumulation Point (GAP) 621 is inconsistent on these figures. Figures 4-1 and 7-1 place GAP 621 off the northwest corner of Building 621, but Figures B3-1 and B3-3 place GAP 621 off the northeast corner of Building 621. It is important to resolve this discrepancy because samples have not been collected northwest of Building 621, indicating that there may not be any samples to evaluate this GAP, which was used for hazardous waste storage. In addition, since the location appears to be uncertain, soil and groundwater samples should be collected northwest of Building 621 to confirm that the GAP was not located in this area. Please resolve this discrepancy and recommend sampling northwest of Building 621.
  
7. **Section 7.3, EBS Parcel 141, Page 7-2:** The text recommends no further evaluation for EBS Parcel 141; however, it appears additional investigation is warranted. Ordnance was reportedly historically stored at the warehouse on this parcel. While ordnance may have been observed to be stored properly during the 1994 EBS, this does not necessarily indicate that this was the case historically. Please revise the text to include additional assessment to evaluate potential impacts from ordnance storage at the site.

Additionally, EBS Parcel 141 is located downgradient of the historical railroad. The soil samples collected to assess impacts from this railroad were shallow (1.5 to 2 feet below ground surface (ft bgs) and 2 to 2.5 ft bgs) and groundwater was not sampled during this investigation. Please revise the text to recommend assessment of impacts to groundwater from the historical railroad tracks.

8. **Section 7.4, EBS Parcel 150, Page 7-2:** The text recommends additional investigation at EBS Parcel 150, where site activities reportedly included aircraft parking and hazardous waste storage. Based on the description provided in Section 3.2.6, the location of the aircraft parking area within Parcel 150 is unclear. Historically, aircraft were commonly sprayed with TCE or other solvents in parking areas; therefore soil and groundwater beneath Parcel 150 may be impacted by VOCs, but the only parcel-wide sampling was for polynuclear aromatic hydrocarbons (PAHs). Little groundwater data appears to have been collected in Parcel 150; groundwater sample locations appear to have been concentrated in CAA-9. With the exception of the storm sewer investigation samples, no samples have been collected west and downgradient of GAP 621 and Building 621. Additional soil sampling in the central portion of the site, east of Building 612, is also warranted as this area has not been addressed. Previous sampling in this area of Parcel 150 did not include VOC analysis. Please expand the area of area of concern (AOC) 2 to the west and south on Figure 7-1 and revise the text to include additional soil and groundwater sample collection throughout this area.

9. **Section 7.5, EBS Parcel 150B, Page 7-2:** The text recommends additional investigation in AOCs 2 and 3 of Parcel 150B to further delineate total petroleum hydrocarbons-motor oil (TPH-mo); however, additional investigation throughout Parcel 150B is necessary is well. Groundwater sampling apparently has only been conducted in the eastern portion of the parcel. Parcel 150B was reportedly used for aircraft parking and hazardous waste storage and spills could have been associated with railroad operation; therefore, the potential exists for groundwater beneath Parcel 150B to be impacted by VOCs. Please revise the recommendation to include groundwater sampling in the central and western portions of Parcel 150B.

Additional assessment of soil beneath Parcel 150B is also warranted. Previous sampling events did not appear include the collection of samples at various depths. For example, a number of soil samples appear to have been analyzed at the 4 to 4.5 feet bgs interval only, other locations were only sampled near the surface. Additionally, due to the nature of previous activities at the site (aircraft parking and hazardous materials storage); samples should have been analyzed for VOCs. Please revise the recommendation to include additional investigation on the north and eastern portions of the parcel at various depths; this should include VOC analysis of samples.

In addition, chloroform exceeded the soil gas screening criteria in Parcel 150B but a number of VOCs (presented in Appendix F) had laboratory reporting limits that were higher than their soil gas ESLs for Parcel 150B. The text does not propose additional soil gas investigation in this area; however, there appears to be the potential for other exceedences of screening criteria for VOCs if lower laboratory reporting limits were available. Please address this concern if VOC soil gas data are to be used to for decision-making purposes at Parcel 150B.

10. **Section 7.6, EBS Parcel 151, Page 7-3:** The text recommends additional soil sampling at Parcel 151, but states that groundwater on the eastern portion of the Parcel is being addressed as part of the IR Site 16 groundwater, but no groundwater data exists for the remaining portion of the parcel. This parcel was also used for aircraft parking. Please revise the recommendation to include groundwater sampling in conjunction with the additional soil assessment.

In addition, since it was observed that copper green preservative was also used on wood stored in this area, the area investigated for creosote should also include sampling and analysis for wood preservative chemicals like copper and arsenic. Please revise the recommendation to include analysis of metals used for wood treatment.

11. **Section 7.7, EBS Parcel 153, Page 7-3:** The text recommends additional investigation at EBS Parcel 153 to further delineate TPH-mo, but sampling for VOCs at various depths is warranted at the site due to previous site uses such as aircraft parking. Potential impacts to soil from the former railroad passing through the southeastern portion of the parcel should be addressed as well. Staining was noted in the vicinity of the railroad tracks; these stained areas merit further evaluation. Please revise the text to include additional

assessment for VOCs in soil and for impacts from the railroad at Parcel 153. Groundwater beneath Parcel 153 will continue to be addressed as a portion of IR Site 9.

12. **Section 7.8, EBS Parcel 154, Page 7-4:** The recommendation for the delineation of TPH in AOC 4 is insufficient. The text states that groundwater beneath Parcel 154 will continue to be addressed as part of IR Site 9. However, with the exception of samples 154-0031, 154-0033, and 154-0035, which appear to be located within approximately 20 feet of one another, groundwater samples were only collected in the Adjacent IR Site 9 Groundwater Study Area. Groundwater beneath the remainder of Parcel 154 does not appear to have been addressed. Please revise the text to include recommendations for additional groundwater sampling throughout Parcel 154.

In addition, since a hose was detached each time the tanker truck (GAP 69) used to collect corrosive waste with heavy metals was moved to drive the tank to industrial waste treatment plan (IWTP) 5 to empty the contents of the truck, it is possible that contaminants remaining in the hose were released at GAP 69. Soil and groundwater sampling is needed to evaluate the potential for releases. Please recommend soil and groundwater sampling in the vicinity of GAP 69.

13. **Section 7.9, EBS Parcel 155, Page 7-4:** The text recommends no further evaluation of EBS Parcel 155 based on its historical usage, but operations along the railroad that formerly ran through the parcel could have been a source of contamination. Please revise the text to include assessment of environmental conditions in the vicinity of the railroad, including soil and groundwater sampling.
14. **Section 7.10, EBS Parcel 159, Page 7-4:** The text recommends no further evaluation of EBS Parcel 159; however past usage of the property indicates additional assessment is warranted. The absence of visual staining alone is not an acceptable justification for no further sampling. Historical uses included aircraft parking and generation of oily waste. Few samples at the site were analyzed for VOCs; however, as previously mentioned, maintenance and cleaning procedures associated with historic aircraft parking areas can result in potential VOC contamination of soil and groundwater. In addition, soil sample 159-0006M had a TPH-mo concentration of 510 mg/kg, slightly exceeding the residential screening level. No other samples were collected in the vicinity of this sample, or at other depths; therefore additional sampling in this area is also needed to delineate the extent of contamination.

No groundwater samples appear to have been collected at Parcel 159. This area lies downgradient of other parcels and AOCs and groundwater should be addressed both to determine site-specific impacts and potential migration of contaminants from upgradient sources. Please revise the text to include additional soil and groundwater sampling at Parcel 159.

15. **Section 7.11, EBS Parcel 160, Page 7-5:** The text recommends no further evaluation at Parcel 160 based on historical usage, but the parcel was formerly used for aircraft

parking. Please revise to the text to include recommendations for soil and groundwater sampling in the aircraft parking area.

16. **Section 7.12, EBS Parcel 164, Page 7-5:** The text recommends no further evaluation at Parcel 164 because it is completely occupied by a building and there is no history of hazardous materials storage or spillage at the property. However, due to its location downgradient of IR Site 19 and potentially downgradient of CAA-4B, groundwater beneath the site may be impacted. Please revise the text to include further evaluation of groundwater, or state that groundwater beneath the site will be evaluated as part of another site investigation.
17. **Section 7.13, EBS Parcel 199, Page 7-5:** The text recommends no further evaluation at Parcel 199 based on historical usage, but this parcel was formerly used for aircraft parking. Please revise to the text to include recommendations for soil and groundwater sampling in the areas used for aircraft parking.
18. **Section 7.14, EBS Parcel 201, Page 7-5:** The text recommends no further evaluation and states that groundwater in the eastern portion of Parcel 201 will be addressed as part of IR Site 9, but no groundwater data is available for the remainder of the site that is not part of the IR Site 9 groundwater plume assessment. Please revise the text to include groundwater sampling in the western and central portions of Parcel 201.
19. **Section 7.15, EBS Parcel 202, Page 7-5:** The text recommends no further evaluation for Parcel 202, as the majority of this parcel is being addressed as part of CAA-9A. However, the text in Section 3.2.18 states that Parcel 202 was historically used for aircraft parking but does not specify where this occurred within Parcel 202. No samples were collected in the areas outside of CAA-9A. Because aircraft parking may have occurred in the open space at Parcel 202 and no assessment of the open space subsurface has occurred, additional soil and groundwater investigation is warranted.

In addition, it appears that potential releases of the corrosion inhibiting chemicals in the wastewater stored in AST 584 have not been investigated. Since hexavalent chromium could have been used as a corrosion inhibiting chemical, soil and groundwater samples for analysis of hexavalent chromium and other corrosion inhibiting chemicals should be collected in the vicinity of this AST. Please revise the text to include a recommendation for additional soil and groundwater investigation in the open space areas of Parcel 202 and in the vicinity of AST 584.

20. **Figure 7-1, Areas Recommended for No Further Evaluation and Areas of Concern:** In the legend of Figure 7-1, the symbols used to depict locations where “Detected TPH Concentration Exceeds Residential Soil ESL” and “Detected TPH Concentration Exceeds Industrial and Residential Soil ESLs” appear to have been reversed. For example, sample 159-006M, the only sample that should be designated as “Detected TPH Concentration Exceeds Residential Soil ESL,” is instead designated as “Detected TPH Concentration Exceeds Industrial and Residential Soil ESLs.” Please address this discrepancy.

21. **Attachment A, Table B3-1, Page 1:** It is unclear why the text in the data analysis section refers to GAP 612, rather than to GAP 621. Please verify that there was no GAP associated with Building 612 and also verify that this text describes GAP 621. Since there is a discrepancy in the location of this GAP on Figures 4-1 and 7-1, compared to the location as depicted on Figures B3-1 and B3-3, please also verify the location of GAP 621.
22. **Attachment A, Table B3-1, Page 1:** The text requests no further action (NFA) for GAP 621 based on two soil samples collected at 4-4.5 feet bgs that were non-detect for VOCs. However, the text indicates that additional assessment is warranted in this area (AOC 2) due to elevated TPH in soil as well as the limited analyses performed near GAP 621. Additional soil and groundwater sampling is warranted in this area to more fully evaluate conditions near GAP 621. Please revise the text for GAP 621 to recommend further evaluation.
23. **Attachment A, Table B3-1, Page 2:** The text requests NFA for Naval Aviation Depot (NADEP) GAP 67 based on a "low potential for releases." However, the text of the SI Report indicates that additional assessment is warranted in this area (AOC 4), due to the absence of sampling at two SWMUs in Building 167. Since the floor was replaced by the tenant, it is not possible to evaluate the potential for releases by visual observation. Additional soil and groundwater sampling is warranted in this area to more fully evaluate conditions near GAP 67. Please revise the text for GAP 67 to recommend further evaluation.
24. **Attachment A, Table B3-1, Pages 3 and 4:** The text requests NFA for NADEP GAP 68; however GAP 68 falls within AOC 4, which was identified in the text as requiring further assessment in the SI Report. The data analysis section indicates that, "IT recommended additional soil and groundwater sampling for the southwest corner of Building 167," but GAP 68 is in the northwest corner of this building where arsenic was detected above its PRG, so it is unclear whether the text is in error. Additional soil and groundwater sampling is warranted in this area to more fully evaluate conditions near GAP 68. Please clarify whether additional soil sampling was recommended in the northwest portion of Building 167 to evaluate the extent of the arsenic found in soil. Also, please revise the text for GAP 68 to recommend further evaluation.
25. **Attachment A, Table B3-1, Page 5:** The text requests NFA for NADEP GAP 69; however GAP 69 falls within AOC 4, which was identified in the text as requiring further assessment in the SI Report. In addition, no sampling has been done in the vicinity of this GAP. It is possible that spills and releases occurred, particularly when the hose connecting the trailer that was used as a storage tank for corrosive waste with heavy metals was detached each time the tanker truck was moved. Soil and groundwater sampling is warranted in this area to more fully evaluate conditions near GAP 69. Please revise the text for GAP 69 to recommend further evaluation.
26. **Attachment A, Table B3-1, Pages 6 and 7:** The text requests NFA for NADEP GAP 71; however GAP 71 falls within AOC 4, which was identified in the text as requiring

further assessment in the SI Report. In addition, VOCs were not analyzed for samples collected in the vicinity of this GAP, which was used to store oil and solvent contaminated rags. Since these rags could have been fully saturated, additional soil and groundwater sampling is warranted in this area to more fully evaluate conditions near GAP 71. Please revise the text for GAP 71 to recommend further evaluation.

27. **Attachment A, Table B3-1, Pages 8 and 9:** The text requests NFA for NADEP GAP 72; however GAP 72 was used to store lead scrap. It is unclear whether runoff from this area, prior to the construction of containment impacted sediment quality in nearby storm drain catch basins. Please identify the closest storm drain catch basins (it appears that there are at least three, based on Figure B3-2) and discuss whether sediment samples collected from these catch basins contained lead. Also, please clarify whether accumulated sediments have been removed from all storm drain catch basins and storm drains in the vicinity of this GAP. If sediments have not been sampled or if they have not been removed from the catch basins and storm drains, please recommend GAP 72 for further action.
28. **Attachment A, Table B3-1, Pages 14-15:** The text requests NFA for AST 584; however, sampling does not appear to have been historically conducted near the tank to assess any potential releases associated with AST 584. The AST was used to store wastewater containing corrosion inhibiting chemicals, but the chemicals that were used are not specified and the text does not describe how often this AST was emptied or whether spills could have occurred when the AST was emptied. One corrosion inhibiting chemical that was commonly used was hexavalent chromium, but it is unclear if any soil or groundwater samples in this area have been analyzed for hexavalent chromium. Please revise the text to specify the corrosion inhibiting chemicals that were used in the boiler plan, to discuss waste handling procedures (i.e., how often the tank was emptied, how it was emptied, and whether spills could have occurred) and evaluate whether soil and groundwater samples collected near this AST were analyzed for those chemicals and for hexavalent chromium. If the corrosion inhibiting chemicals are unknown or soil and groundwater samples were not analyzed for likely corrosion inhibiting chemicals, please recommend this AST for further action and collect soil and groundwater samples for analysis of hexavalent chromium and other corrosion inhibiting chemicals.

## COMMENTS ON THE HUMAN HEALTH RISK EVALUATION

1. The Human-Health Risk Evaluation (HHRE) in Section 5 of the Draft Site Inspection Report – Transfer Parcel EDC-12 appears to be deficient in adequately delineating exposure receptors and pathways of concern in addition to conditions at the site. Delineation of potential exposure pathways and receptors related to any site of concern are obligatory components in the development of a defensible exposure assessment, and integration of such a conceptualization is concordant with U.S. EPA's *Risk Assessment Guidance for Superfund (RAGS) Volume I Human Health Evaluation Manual Part A* (1989) in addition to U.S. EPA's *Remedial Investigation and Feasibility Study (RI/FS) Guidance* (EPA, 1988). A site-specific conceptual site model (CSM) should graphically portray all potential migration routes, exposure pathways and receptors until sampling

analysis proves that a particular medium has not been impacted by site contamination. The HHRE simply states that the “exposure pathways evaluated for this human-health CSM are the same as those for soil and groundwater included in the U.S. EPA Region 9 PRGs” (page 5-1). However, it is not understood how these pathways are applicable to current and anticipated land use conditions specific to EDC-12. Essentially, Section 5 fails to identify potential pathways and receptors critical in the assessment of risks and hazards associated with exposures incurred at the property encompassing EDC-12. Further, this HHRE has inadequately characterized the spectrum of complete and potentially complete exposure pathways necessary for a baseline assessment of risk. Please provide a graphical depiction of the CSM delineating the chemical sources, chemical migration pathways in affected media, potential exposure routes, and known or potentially exposed human populations.

2. The methodology underpinning the use and/or elimination of analytical data in the risk evaluation is not provided. Although the Executive Summary (page ES-3) indicates that screening-level human health risks have been compared to chemical concentrations above detection limits, Section 5 fails to provide a description of the treatment of non-detect results. The data evaluation should present a discussion surrounding treatment of all analytical results, including non-detect results. Such a discussion should present the uncertainties associated with phenomena such as cases where a reporting limit (preferably a sample quantitation limit) exceeds the most relevant health-based screening criterion. Essentially, although an analyte may be present at or below its quantitation limit, it still may be present at an environmentally-significant level (e.g., health-based standard). Please provide discussion pertaining to the treatment of non-detect data in the risk evaluation.
3. According to Table C1-3 (B(a)P Equivalent and Carcinogenic PAH Soil Sampling Results for EDC-12), analyte data are available for individual polycyclic aromatic PAHs in addition to benzo(a) pyrene [B(a)P] equivalents. Essentially, it appears that Table C1-3 has assessed the PAHs using the toxic equivalency approach. However, it is unclear why this method has not been carried through to the screening analysis. Please consider carrying this comparative potency approach through to the risk screening analysis. Further, if the HHRE is revised to incorporate the aforementioned quantitative methodology, qualitative discussion of the basis of this methodology would also have to be incorporated within Section 5.
4. **Tables B-1 through B-10:** Since the text of Section 5 indicates that PAHs are to be screened at a carcinogenic target risk corresponding to 1E-05, revision to Tables B-1 to B-10 to reflect this target level should be considered. That is, currently the PRGs for the PAHs evaluated for in this HHRE are based on a target risk level of 1E-06. To provide a consistent screening framework so that the text in Section 5 is concordant with the results presented in Appendix B, please consider adjusting the PRG values presented in Tables B-1 through B-10 so that they are an order of magnitude greater than the values currently reported.