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Sent: Friday, June 12, 2009 5:48 PM

To: Keith Forman

Cc: Amy Brownell; Erich Simon; Jeff Austin; Melanie Kito; Ryan Miya; Hall, Steve; Ross Steenson

Subject: EPA Comments - Draft Final RI/FS for Parcel E-2

Attached please find EPA's comments on the Draft Final RI/FS for Parcel E-2

(See attached file: Parcele-2.DF.RIFS.epa.comments.doc)

EPA Review of the Draft Final Remedial Investigation/Feasibility Study Report for Parcel E-2, Hunters Point Shipyard, San Francisco, California, February 2009

Response to Comment 1: The FS evaluates a low permeability soil cover for the Panhandle, but the intent of the original comment was to evaluate just a soil cover. The groundwater data from the latest data gaps investigation shows only a limited number of locations with results above the CTR/HGAL. Taking copper as an example, only two locations in the Panhandle were more than 10X the HGAL. One of those is in the former Metal Slag Area and is proposed for hot spot excavation and the other is in the northwest portion of the Panhandle and appears slated for 10' excavation as part of the proposed elevation changes. Other areas with results less than 10X CTR/HGAL are also proposed for hot spot excavations. I would prefer to see the Navy explain whether or not infiltration is a problem. Much of the soil sits below the water table, so while controlling infiltration does provide a decrease in leaching from the overlying soil, it provides only minor control on transport of the underlying groundwater. If that existing groundwater does not pose an excess risk, then please evaluate whether laying acres of plastic is a worth while effort in comparison to impacts to habitat.

Response to Comment 14: The response is appropriate, but a statement that the PCB removal action was incomplete near the shoreline and to the northwest has not been incorporated into Table 1-3.

Figure 3-1: Please have the colors in the legend correspond to the colors on the figure.

Section 4.1.2.1: This section would be much clearer if the embedded table provided the results of the 2002 study that is discussed in the text. The text and the table do not use the same criteria, i.e., 25 percent of the LEL versus 1.0 percent methane by volume. Even better would be to delete details and the table from this section since there is a complete discussion in Section 4.2.3.1 and Fig. 4-2.

Response to Comment 52: The text of Section 5.3.2.2 as rewritten still implies that all light-non-aqueous phase liquid (LNAPL) was removed from the PCB Hot Spot, which does not address the original comment. Please revise the text to state clearly that LNAPL remains in the vicinity of the PCB Hot Spot.

Response to Comment 93: The response addresses the comment, but the text added to Section 6.1 does not include all of the substances found in the 110 drums in the East Adjacent Area (PCB Hot Spot). For example, pesticides and PCBs were found in some drums. Please revise the text to include a more comprehensive list of the substances found in the drums.

Response to Comment 103: The response addresses the comment and text was added to Section 8.4.1 describing the wastes found in the Panhandle (Metal Slag Area), but the description of the contents of the six drums does not match the materials observed by EPA and TechLaw during a site visit. The observed material consisted of a yellowish material with a waxy appearance that softened in the sun, not soil and debris. Please revise the description of the Metal Slag Area drum contents to reflect the actual contents of the drums.

Response to Comment 111: The response partially addresses the comment. The assumption regarding the landfill gas accumulation in the East Adjacent and Panhandle Areas was deleted and text was added to indicate a landfill gas investigation would be completed during the remedial design process. However, no additional information was provided. Please revise the text to include a brief description of the investigative activities and possible remedies (i.e., additional landfill gas collection systems or tie-ins to the currently proposed system) if unacceptable concentrations of landfill gas are discovered.

Response to Comment 112: The comment response addresses the original comment, but part of the comment response was not incorporated into the document. The comment requested clarification of the landfill legend symbols. The line type for the landfill extent was corrected; however, the existing landfill cap was not identified on the figure as indicated in the comment response. Please revise the figure to include an outline of the existing landfill cap.

Also, the response contains a detailed explanation regarding the proposed landfill regrading. The response includes detail necessary to gain concurrence regarding the proposed alternative and should be incorporated into the RI/FS text. Please also revise the text to clarify the description of landfill regrading.

ADDITIONAL COMMENTS ON NEW AND REVISED MATERIAL

GENERAL COMMENTS

1. The figures presented in Section 12, Development of Remedial Alternatives, often reference the PCB Hot Spot Area, which was excavated during previous removal actions, but the references are inconsistent. The area is referred to differently on various figures within Section 12. For example, PCB Hot Spot Area, PCB-TCRA Limit, and No Excavation Required are all used as terms to denote this feature. To provide consistency and clarity throughout this section, please select and use one nomenclature to describe this area.
2. The names on figures for the Metal Slag Area and the PCB Hotspot Area are not consistent throughout the document. For example, Figures ES-1 and 3-3 refer to Metal Slag Area (final boundary) while Figure 1-13 does not include the (final boundary) qualifier. The (final boundary) qualifier, if used, should be changed to (previous excavation boundary) because it does not necessarily show the final boundary or full extent of the area. Please use consistent titles throughout
3. The RI/FS does not adequately address the City of San Francisco's possible proposed reuse alternative involving construction of a road along the Hunters Point Shipyard boundary; this road may run through some of the proposed wetland mitigation areas. The proposed pedestrian path/walkway (e.g., as discussed in Section 12.1.3) does not appear to represent the anticipated footprint or location of the road and does not appear to

present this potential future use. The Navy designs remedies based on official reuse plans, so we're not asking that the remedies be weighed against multiple possible reuses, but at least show the possible road on a figure and explain this very possible reuse scenario, and how it might impact the remedy.

4. For all alternatives involving excavation along the shoreline, it is unclear whether the same types of controls as those proposed for grading in Alternative 3 (page 12-19) would be included and whether the costs for these controls have been included. Please revise the text describing each alternative that involves excavation to include a brief discussion of controls that will be implemented during shoreline excavations.

SPECIFIC COMMENTS

1. **Figure 4-1, Isolated Waste Locations in Adjacent Areas:** This figure does not include the six drums with wastes that were found in the Metal Slag Area. The drums are discussed in Section 4.3.1 and should be included on this figure.
2. **Section 5.7.2.3, Pesticides and PCBs, PCBs, Page 5-29:** The 1 microgram per liter (ug/L) PCB concentration in temporary well TW047 that exceeds the RIEC (0.03 ug/L) should be discussed in the text.
3. **Section 9.1.1, Chemicals of Concern and Chemicals of Ecological Concern in Solid Waste, Soil, and Sediment, Page 9-2:** In the remediation goal summary table provided, 2,3,4,7,8-pentachlorodibenzofuran (2,3,4,7,8-PCDF) was deleted from this revised version of the RI/FS. Please verify the deletion was intentional.
4. **Section 9.3.1, Chemicals of Concern and Chemicals of Ecological Concern in Groundwater, Page 9-5:** Several COCs, such as (but not limited to) 1,1,2,2-tetrachloroethane, copper, gamma chlordane, mercury, and naphthalene, were deleted from the remediation goal summary table provided in this revised version of the RI/FS. Please verify the deletions were intentional and explain why each chemical was deleted in the response to this comment.
5. **Section 11.6.3, Excavation of Hot Spots in the Panhandle, East Adjacent, and Shoreline Areas with On-Site Consolidation and Off-Site Disposal, Pages 11-52 and 11-53 and Section 11.6.4, Excavation of Solid Waste, Soil, and Sediment in the Panhandle, East Adjacent, and Shoreline Areas with On-Site Consolidation and Off-Site Disposal, Page 11-54:** The text states that only low level radioactive waste (LLRW) will be disposed off-site, but it is possible that additional drums and munitions will be found during hot spot excavation. Please revise the description of these process options to include off-site disposal of drums, munitions, hazardous wastes and PCBs that exceed TSCA limits. Also, please revise the description of Alternative 3 to address these issues.

6. **Section 12, Development of Remedial Alternatives, Alternative 2, Page 12-1:** The introductory text to Section 12 provides a brief description of the four proposed alternatives, but it has not been updated. The text for Alternative 2 – Excavate and Dispose of Solid Waste, Soil, and Sediment (including monitoring and institutional controls) was not updated to include hot spot removal. Subsequent sections (12.1.6 and 12.2.2) indicate Tier 1 through Tier 5 hot spots will be excavated under Alternative 2. Please revise the introductory text to reflect the current remedial alternatives under consideration.
7. **Section 12.2.3.6, Cap Construction, Pages 12-20 and 12-21:** This section proposes the construction of freshwater wetlands on top of the geosynthetic cap in the Panhandle Area. Previous EPA comments expressed the preference that soil be used beneath constructed wetlands rather than high-density polyethylene (HDPE) liners. Please address this issue.
8. **Section 12.2.4, Alternative 4: Contain Solid Waste, Soil, Sediment and Groundwater with Hot Spot Removal (including monitoring and institutional controls), Page 12-24:** Alternative 4 includes a contingency to extend the near-shore slurry wall south into the PCB Hot Spot Area, but sufficient information is not provided to evaluate this contingency. The RI/FS states an assessment of updated groundwater monitoring data will be completed during the remedial design process, but it is unclear how this data assessment will affect the slurry wall evaluation in the RI/FS. No additional information or assessment parameters are specified. It is unclear how completion of the groundwater data assessment will affect the RI/FS decision making. Please revise the text to explain how the assessment could necessitate the expansion of the slurry wall (e.g., data comparison to project-specific cleanup goals, etc.). Please also revise other sections of the RI/FS (e.g., Section 13.4) that include the detailed assessment of this alternative.
9. **Figure 12-1, Conceptual Grading Plan Alternatives 3 and 4:** Please revise Figure 12-1 to illustrate where Area A is located.
10. **Figure 12-14, Conceptual Grading Plan, Alternative 2:** It is unclear why the proposed intertidal wetland on this figure is different than that found in the Draft Final Wetlands Mitigation and Monitoring Plan Parcels B, E and E-2.
11. **Section 13.3.3, Long-Term Effectiveness and Permanence, Page 13-12:** In the Draft RI/FS the long-term effectiveness and performance of Alternative 3 was categorized as moderate to high, but in the revised version of the RI/FS, the performance of this alternative was modified to moderate. No explanation was provided. Please explain what prompted the perceived reduction in long-term effectiveness.
12. **Appendix M, Section M2.2, Identification of Chemicals Detections in Groundwater, Page 2-2:** 2-chloronaphthalene was deleted from the list of chemicals with laboratory reporting limits greater than the aquatic criteria. Please explain or clarify why this

chemical was removed. For example, clarify if an updated analytical method with a lower reporting limit was used more recently.

13. **Appendix R, Table R-6, Alternative 2 – Excavation Volume Estimate:** “Adjacent Areas” is listed under the column Area Name. Please refer to EPA Specific Comment 107 on the Draft RI regarding the reference to “adjacent areas” within the RI/FS and revise the table or add a footnote to identify the specific area.

MINOR COMMENTS

1. **Section 9, Remedial Action Objectives:** The even numbered pages have an incorrect header that reads “Section 8.” Please correct the headers to indicate the proper section.
2. **Figure 12-10, Proposed Soil Hot Spot Excavations in East Adjacent Area:** According to the legend, the PCB Hot Spot Area is defined by a green border and fill pattern, but the figure doesn’t include the associated fill pattern. The area on the actual map is only outlined in green border. For clarity and consistency, please either fill the PCB Hot Spot Area or update the legend.
3. **Section 12 Figures:** The figures presented in Section 12 contain several inconsistencies that suggest the figures have been extracted from other Hunter Point Shipyard documents for use in the RI/FS. For example, the PCB Hot Spot is sometimes a shaded green color and sometimes outlined with a blue dashed line. Additionally, the San Francisco Bay is colored blue and hatched with “x”s in various figures. Please revise the figures so they are consistent for simplicity and clarity.
4. **Figure 12-15, Soil Hot Spot Excavations and Grading, Alternatives 3 and 4:** To provide clarity and continuity within the Section 12 figures, please revise the figure to illustrate the PCB Hot Spot Area excavated during previous removal actions similar to Figure 12-13.
5. **Section 12.2.3.7, Groundwater Diversion System along Western Boundary of Landfill Area, Page 12-21:** It appears that the figure citations are incorrect. For example, the slurry wall and subsurface drain are illustrated on Figure 12-17, not Figure 12-7 as stated in the text.
6. **Appendix I, Figure I-2, Maximum Total Dissolved Solids Concentrations in the B-Aquifer:** The figure contains four question mark (?) symbols; three located in the Panhandle Area and one in the East Adjacent Area, but the symbol is not included in the legend. Please revise the figure to include a definition for the symbol or remove it from the figure.