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Mr. Thomas L. Macchiarella
Code BPMOW.TLM
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REVIEW OF DRAFT RECORD OF DECISION FOR INSTALLATION RESTORATION SITE 27, DOCK ZONE, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Dear Mr. Macchiarella:

The Department of Toxic Substances Control (DTSC) has reviewed the document cited above (Site 27 ROD), dated April 2007. Site 27 is part of Operable Unit 6, and was historically used for ship docking, repair and painting as well as equipment and materials staging/storage, vehicle washdown, and chemical storage and handling. Groundwater at the site is contaminated with chlorinated solvents. The selected remedy for the site is described in the Site 27 ROD includes in situ chemical oxidation (ISCO), groundwater confirmation sampling, and institutional controls. Comments on the Site 27 ROD are included as an attachment to this letter.

If you have any questions, please contact me at (916) 255-6449.

Sincerely,

Dot Lofstrom, P.G.
Project Manager
Office of Military Facilities

Attachment

ATTACHMENT

The Department of Toxic Substances Control (DTSC) Comments on the "Draft, Record of Decision for Installation Restoration Site 27, Dock Zone," dated April 2007

- 1) Declaration, Page D-2, first true paragraph. This paragraph concludes with the statement, "The Navy recommends that aboveground storage tank (AST) 15 be deferred to the Alameda Point Total Petroleum Hydrocarbons (TPH) program. Later, on page 2-5, second paragraph, the Site 27 Draft ROD states, "The aboveground storage tank included in AST015 was removed prior to 1994; this unit is deferred to the Alameda Point TPH Program." It's not clear from these two sentences if the Navy is requesting concurrence from the regulatory agencies to defer the AST to the TPH program or if that has already occurred. Please reconcile the contradiction between the two statements, and notify DTSC if concurrence is sought.
- 2) Declaration, page D-2, first true paragraph The paragraph describing the solid waste management Units (SWMU) at Site 27 states that further action is recommended for Area of Concern (AOC) 15, oil water separator (OWS)-166A and 166-B, and washdown area (WD-166). OWS-166A, OWS-166B and WD-166 are referred to several more times throughout the Site 27 Draft ROD, and, with the exception of some confusion related to the TPH program (described in our comment below), it is apparent that additional sampling will be completed during the remedial design. In contrast, the description of AOC-15 is less clear in the text. AOC-15 consists of three underground storage tanks (USTs) that were removed in 1994, but that is evident only from Table 2-3, not from the text. Until the reader arrives at Table 2-3 it is not understood that AOC-15 is comprised of the three removed USTs. Moreover, low concentrations of total petroleum hydrocarbons have been detected in groundwater associated with the three USTs, but that is not clearly presented in the text either, as reflected in United States Environmental Protection Agency (USEPA) Comment 13 on the Site 27 Draft ROD. Thus, AOC-15 should be discussed separately from OWS-166A, OWS-166B, and WD-166, and a more complete initial description provided in both the declaration and on page 2-5. Additionally, groundwater contamination associated with the three USTs should be clearly described.
- 3) Table 1-1, Site Description, third paragraph This paragraph concludes with a description of three SWMUs, specifically, WD-166, OWS 166A and OWS-166B. On page 2-7, the Site 27 Draft ROD states that these SWMUs were recommended for no further action under the TPH program. On page 2-5, the Site 27 Draft ROD states that these SWMUs are recommended for further action (data gap sampling). DTSC is interpreting these two statements to mean that although the SWMUs were recommended for no further action under the TPH program, additional data gap sampling under the Comprehensive Environmental Response, Compensation and Liability Act will be conducted during remedial design. Is this interpretation correct? If so, this explanation should also be provided on pages 2-5 and 2-7.

- 4) Table 1-1, Site Description, fourth paragraph The Site 27 ROD uses language in this paragraph that both USEPA and DTSC objected to during the Proposed Plan. Previous comments from USEPA are as follows:

Is the Navy stating here that current operations at Site 27 are continuing to provide a source of contamination to groundwater? In addition to this concern, EPA continues to find the statement that there are potential upgradient sources of contamination at IR 27 problematic. Making this statement brings up the concern that groundwater sources have not been adequately characterized and that the treatment of groundwater at Site 27 will not be successful due to recontamination from the upgradient sources. Which sources upgradient does the Navy believe may be responsible for the contamination at Site 27 and what steps have been taken to characterize this source and control its future impact on groundwater at Site 27?

Please revise the fourth paragraph of the Site Description in Table 1-1 to reflect this comment.

- 5) Section 2.2.3, entire Section This Section states that several areas in the vicinity of Site 27 are being addressed by the Alameda TPH program, and that a portion of Corrective Action Area (CAA) 11-B is located within the IR Site 27 boundaries. Please add a paragraph that briefly explains the status of the CAA-11B remediation.
- 6) Section 2.2.4, page 2-7 The Site 27 Draft ROD states that underground storage tanks in CAA-11B were used as "storage for lubricating oil; diesel, gasoline or jet fuel; or other miscellaneous liquids." Please define "other miscellaneous liquids." This could be included as a footnote, or could be provided in Table 2-4.
- 7) Section 5.3, page 5-4, second paragraph. This paragraph states that arsenic concentrations in soil at the site were above the preliminary remediation goal (PRG) but were comparable to the Alameda Point background concentrations. Please state the Alameda Point background concentration in this paragraph.
- 8) Section 5.3.2, page 5-4, third paragraph
- Arsenic has been reported in groundwater at concentrations exceeding the Alameda Point background value, and a remediation goal of 20.4 micrograms per liter ($\mu\text{g/L}$) is proposed in the Site 27 Draft ROD. Section 5.3.2 states that localized mobilization of arsenic has likely occurred as a result of geochemical conditions in the VOC plume area, and that arsenic concentrations will be reduced following completion of VOC remediation. Please explain this hypothesis in greater detail. Is the

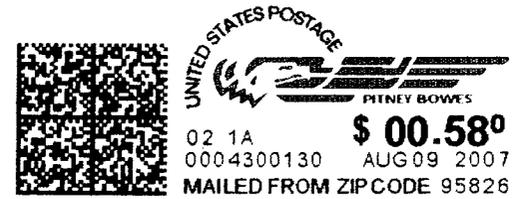
Navy suggesting that the presence of chlorinated solvents in groundwater is mobilizing the arsenic? Is this due to a change in soil pH? A similar hypothesis is presented in the Operable Unit 1 Draft Final ROD on page 3-16, where the Navy postulates that the release of TPH at Site 7 may have changed the geochemical conditions (reducing conditions) of the shallow groundwater aquifer, resulting in increased arsenic solubility. Is there a correlation throughout Alameda Point with increased arsenic and groundwater contaminant plumes?

- The post-treatment monitoring program described in Section 12.2.2 does not include metals analyses. Metals analyses should be performed to monitor post-treatment arsenic concentrations as well as concentrations of other metals that may be mobilized under oxidizing concentrations.
- 9) Table 5-1 Please add a footnote with the Alameda Point background concentration for all chemicals with a "Yes" in the Background column. In the case of Site 27, that is arsenic only.
 - 10) Table 5-2 Please add a footnote stating that the Alameda Point background concentration for arsenic in groundwater is 20.4 µg/L.
 - 11) Section 9.5, page 9-3, second paragraph The paragraph describes institutional controls that would be put in place that would prohibit groundwater extraction at the site and prohibit actions that would interfere with the remediation and confirmation sampling activities. Please include the IC that will prohibit residential and other sensitive land uses until RGs have been met in this paragraph.
 - 12) Section 12, page 12-1, first paragraph. The selected remedy includes groundwater confirmation sampling. Confirmation soil gas sampling should also be conducted upon remedy completion to ensure unrestricted use is appropriate at that time.
 - 13) Section 12.2.1, page 12-2, second paragraph The Site 27 Draft ROD states that injections of Fenton-like reagent will focus on a 10-foot thick treatment zone for in situ chemical oxidation. The Site 27 Draft ROD further states in Section 12.4, page 12-8 that information collected during the remedial design phase may include defining the vertical extent of the chemicals of concern. As stated in comments from DTSC previously submitted for the Site 27 Draft Remedial Investigation report and Draft Feasibility Study, the vertical extent of chlorinated solvents has not been defined at Site 27 and is a data gap that needs to be completed during the remedial design phase

- 14) Section 12.2.2, Page 12-3 The groundwater sampling schedule is included for during and post-treatment. Please add a provision to include at least one round of post-treatment soil gas sampling as well.

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