RESPONSE TO AGENCY COMMENTS ON THE NAVY RESPONSES TO EPA COMMENTS DRAFT PROJECT COMPLETION REPORT, EXPLORATORY EXCAVATIONS HUNTERS POINT SHIPYARD

This document presents the U.S. Department of the Navy's (Navy) responses to comments from the regulatory agencies on the Navy responses to U.S. Environmental Protection Agency (EPA) comments on the draft project completion report for exploratory excavations at Hunters Point Shipyard (HPS), dated February 1997. The comments addressed below were from the EPA on May 14, 1998.

Agency comments are presented in boldface type, and Navy responses are presented in normal type.

RESPONSE TO COMMENTS FROM EPA

General Comments

1. **Comment:** **Response to General Comment 1. Several responses state that a human health risk evaluation will be completed when the contaminants were left in place above the water table areas to determine whether additional excavation is necessary. EPA does not necessarily agree with this idea of rerunning the risk assessment. The cleanup of all EEs must be consistent with the ROD requirements for the parcel on which they are located.**

EE-01. It is unclear why a sample was not originally collected from the northeast end of the excavation; this sample should have been collected to determine whether all contaminated soil was removed or to estimate the volume of contamination that could not be removed. Please explain.

The additional sample discussed in the response should be collected close to the northeast end of the excavation. In the reference to the last sentence of the response, because there is a physical obstruction, it is unclear what additional remedial action(s) would be taken if contamination is found. Please explain.

EE-02. The concentrations of nickel in soil left in place exceed the Parcel B ROD soil cleanup standards. These cleanup standards are not sample-specific, so the response is misleading in stating that no further action is necessary.

EE-03. The concentrations of nickel in soil left in place exceed the Parcel B ROD soil cleanup standards. These cleanup standards are not sample-specific, so the response is misleading in stating that no further action is necessary. Groundwater monitoring to determine the impact from the contamination left in place below the water table should also be included.

EE-05. Because significant nickel, lead, manganese, and mercury contamination was left in place below the water table, the impact of this

contamination on groundwater quality must be determined. This excavation is within the tidally influenced zone, so groundwater monitoring is important to ensure that there is no impact to San Francisco Bay.

EE-11. Please briefly explain why the third area (originally shown in Attachment of the Action Memorandum) was recommended for no further action.

EE-13. Please briefly explain why EE-13 was recommended for no further action.

EE-17. The site description and analytical data for this site were not included in Attachment C of the Action Memorandum as indicated in the response. Please provide this missing information.

EE-18. In the response it is stated that the analytical data for the site was included in Attachment C of Appendix A. Neither the site description nor analytical data were included in Attachment C for site EE-18. Please provide this data.

Response: Exploratory excavations that stopped at the groundwater table will be continued to a depth of 10 feet below ground surface or until the Parcel B ROD soil cleanup goals are met. A human health risk assessment (HHRA) was proposed to evaluate potential risk from chemicals of potential concern (COPC) for excavations where physical obstruction was encountered. The Navy proposes that no further actions will be required if the potential risk is between 10^{-4} and 10^{-6}, which is consistent with Section 300.430(e)(2)(i)(A)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan, Final Rule. Section 300.430(e)(2)(i)(A)(2) states: "For known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between 10^{-4} and 10^{-6} using information on the relationship between dose and response. The 10^{-6} risk level shall be used as the point of departure for determining remediation goals for alternatives when applicable or relevant and appropriate requirements are not available or are not sufficiently protective because of the presence of multiple contaminants at a site or multiple pathways of exposure."

EE-01. The northeast wall of EE-01 was terminated at the building foundation wall. All soil was removed up to the foundation; therefore, no soil samples could be collected on the northeast wall. The soils beneath the foundation are buried and not readily accessible; therefore it is unlikely that a human or ecological receptor would be adversely affected under current conditions. Removal of shoring the building foundation to continue the excavation would be very costly. The Navy proposes that a HHRA be performed as indicated in the response above.

EE-02. The Parcel B ROD soil cleanup goals (Table 8) for metals were either risk-based calculated values or the Hunters Point Ambient Levels (HPAL), whichever value was higher. The HPALs for chromium, cobalt, and nickel are based on a sample-specific regression. To be consistent with the Parcel B Record

of Decision (ROD) cleanup goals, the sample-specific HPAL value is the cleanup goal if it exceeds the risk-based calculated value. Samples collected from EE-02 that exceeded the nickel risk based value of 314.7 mg/kg did not exceed the sample specific HPAL; therefore, no further action is required.

EE-03. See response for EE-02 above. . Samples collected from EE-03 that exceeded the nickel risk based value of 314.7 mg/kg did not exceed the sample specific HPAL; therefore, no further action is required. Two RAMP wells, IR07MWS-2 and IR07MW19A, are located approximately 100 feet northwest and 125 feet northeast, respectively, of EE-03.

EE-05. One well, IR26MW45A, located adjacent to EE-05 has been added to the remedial action monitoring plan (RAMP) to monitor lead, manganese, and mercury concentrations in A-aquifer groundwater.

EE-11. As discussed in Appendix A, Attachment A (p. 9) and Attachment B (p. B-3) of the Project Completion Report, the extent of excavation at EE-11 and several other sites was revised based on new data and comments received during regulatory review of the EE/CA. The revisions are shown in Appendix A, Attachment C.

EE-13. As discussed in Appendix A, Attachment B (p. B-3) of the Project Completion Report, the extent of excavation at several EE sites was revised based on new data. EE-13 was eliminated as a result of the new data. The revisions are shown in Appendix A, Attachment C.

EE-17. Appendix A, Attachment C contains a site description and proposed action. Please see Appendix C of the Project Completion Report for the analytical data.

EE-18. Appendix A, Attachment C contains a site description and proposed action. Please see Appendix C of the Project Completion Report for the analytical data.

2. **Comment:** **Response to General Comment 2. An approved work plan is not a substitute for the requirement to comply with RCRA. It is unclear why soil from different EEs was stockpiled together before disposal characterization occurred; soil excavated from individual EEs should have been sampled to determine if it was hazardous prior to mixing soil from different EEs in stockpiles. It appears that this was not done; please specify the actual sequence of excavation, stockpiling, and sampling. EPA has further discussed its concerns regarding this issue in its April 1998 letter to the Navy regarding RCRA violations.**

Response: Identification of the contaminants of concern (COC) for each Exploratory Excavation (EE) and their concentrations were generated before excavation began when these EE sites were investigated. This information was published in the Final Action Memorandum. The information contained in the Final Action

Memorandum was used to plan the excavation and the temporary storage arrangements for the contaminated soil material that was removed from the EE sites. Excavation occurred, followed by temporary stockpiling using the Final Action Memorandum data (Appendix C) to segregate non-RCRA material from RCRA material and TSCA material.

3. **Comment:** **Response to General Comment 3. The response states that the analytical data for sites EE-11, 13, and 18 were included in Attachment C of Appendix A. No data was included for site EE-18 (see Comment 1). Please provide this missing data.**

Response: Appendix A, Attachment C contains a site description and proposed action. Please see Appendix C of the Project Completion Report for the analytical data.

4. **Comment:** **Response to General Comment 6, paragraphs 2 and 3. This strategy does not address the potential situation where the water table drops in the future, exposing contamination that was previously below the water table in the case where a future owner or tenant excavates this contaminated soil. Also, when contamination is left in place below the water table, groundwater should be monitored to ensure that there is no potential for impact to aquatic life in San Francisco Bay.**

Response: Excavation that stopped at the groundwater table will be continued to greater depths, if needed, to comply with ROD cleanup goals for a given parcel. For example, excavations that stopped at the groundwater table in Parcel B will be advanced to a depth of 10 feet below ground surface or until Parcel B ROD soil cleanup goals are met.

5. **Comment:** **Response to Specific Comment 1. The fact that physical criteria (not solely chemical criteria) were used to determine when an excavation was complete should have been included in the fourth paragraph on page 2; this is not obvious to the reader. Based on this paragraph (p. 2, paragraph 4) a member of the public would likely conclude that all contamination was removed.**

Response: The Navy agrees with this observation and has added the following text to the Completion Report: "...excavation continued until subsequent analyses met acceptance criteria or until an immovable physical obstruction was encountered."

6. **Comment:** **Response to Specific Comment 3. The change was not made to the text.**

Response: The text will be revised.

7. **Comment:** **Response to Specific Comment 8. Groundwater monitoring should be recommended for EE-03 and EE-05 (see Comment 1).**

Response: Two RAMP wells, IR07MWS-2 and IR07MW19A, are located approximately 100 feet northwest and 125 feet northeast, respectively, of EE-03. One new well, IR026 MW45A, located adjacent to EE-05 has been added to the RAMP.

New Comments

1. **Comment:** **Section 3.0, p. 5, EE-02. The concentrations of nickel in soil left in place exceed the Parcel B ROD soil cleanup standards. These cleanup standards are not sample specific. This should be stated in the text.**

   Response: See response to General Comment 1, EE-02 above.

2. **Comment:** **Section 3.0, p. 5, EE-03. The concentrations of nickel in soil left in place exceed the Parcel B ROD soil cleanup standards.**

   Response: See response to General Comment 1, EE-02 above.

RESPONSE TO COMMENTS FROM DTSC

1. **Comment:** **Some of the exploratory excavations were halted when groundwater was encountered. With the change of the physical criterion of the vertical excavation limit from the groundwater table to 10 feet below grade, all these areas must be further excavated to reach 10 feet (or uncontaminated soil).**

   Response: See response to General Comments 1and 4 from EPA.

2. **Comment:** **When Residential Soil Levels (RSL) cannot be achieved due to high detection limits caused by interferences from other constituents, institutional controls must be included as part of the final remedy. The institutional controls can note that these areas may be contaminated, but current testing methods are inadequate to detect the contaminants reliably die to matrix interference.**

   Response: A HHRA was proposed to evaluate potential risk from COPCs, regardless of high or low detection limits. The Navy proposes that no further actions will be required if the potential risk is between 10^{-4} and 10^{-6} , and may use institutional controls, if needed, to achieve this risk range.

3. **Comment:** **Excavations suspended because of physical obstructions such as building foundations should be documented and the final remedy should include institutional controls to notify future owners that soils under exiting foundations might be contaminated.**

   Response: See response to General Comment 1 for EPA. The Navy will consider using institutional controls to notify future owners that soils under existing foundations might be contaminated if the potential risk exceeded 10^{-4}.

4. **Comment:** **In the case where one sidewall sample was collected to represent the entire sidewall and the sample exceeded the screening level concentrations, the entire sidewall must be excavated further. It would not be adequate to excavate only the area around the sampling location.**

   Response: The Navy is in agreement with this comment.

5. **Comment:** **For the removal action to be consistent with the final remedy, sampling frequency should conform to the final remediation confirmation sampling protocol. This will prevent the need for further confirmation sampling later.**

   Response: For future removal actions at HPS, confirmation sampling will conform to the remedial design sampling frequency presented in the Parcel B confirmation sampling and analysis plan.