

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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N00217.003963
HUNTERS POINT
SSIC NO. 5090.3

June 1, 2000

Mr. Richard Mach
Department of the Navy
Naval Facilities Engineering Command
Southwest Division
BRAC Office
1220 Pacific Highway
San Diego, CA 92132-5190

Re: EPA review and comment of the draft January - March 2000, Second Quarterly Groundwater Sampling Report for Parcel B, Hunters Point Shipyard, San Francisco, California, dated May 12, 2000

Dear Mr. Mach:

EPA has completed its review of the above referenced document and has a number of comments. Our comments are presented in an attachment to this letter.

In addition, EPA would like to know if the Navy could provide our contractor Tech Law, Inc. with electronic copies of the data tables (Appendix A) as well as GIS data, if available. This would greatly facilitate EPA's review of the data. Please let me know at your convenience if this would be a possibility.

If you have any questions about this letter, please contact me at 415-744-2409. I am in the office on Mondays, Tuesdays, and Thursdays.

Sincerely,



Claire Trombadore
Remedial Project Manager

cc: Chein Kao, DTSC
Brad Job, RWQCB
Amy Brownell, City of SF
Adam Klein, TechLaw
Jason Broderson, Tetra Tech

DOCUMENT REVIEW
DRAFT JANUARY-MARCH 2000
SECOND QUARTERLY GROUNDWATER SAMPLING REPORT FOR PARCEL B
HUNTERS POINT SHIPYARD

GENERAL COMMENTS

1. The Draft January - March 2000 Second Quarterly Groundwater Sampling Report for Parcel B report, Hunters Point Shipyard (the Report) indicates that trigger levels for barium, chromium and zinc were exceeded in groundwater samples from 10 of the 24 wells sampled. However, it is stated throughout the Report that the chromium and barium exceedances are consistent with variations in ambient conditions of Hunters Point Shipyard (HPS) groundwater. According to page 7 of the Report, based upon the methodology used to calculate ambient groundwater levels, 5 percent of the ambient population will exceed the calculated ambient level. However, groundwater samples from 8 of the 24 wells sampled (33 percent) exceeded the ambient level for barium. These results do not appear to indicate that the barium exceedances are consistent with variations in ambient conditions of HPS groundwater. Please revise the Report to eliminate the statements indicating that the barium exceedances are consistent with variations in HPS groundwater. Alternatively, please provide additional justification for these statements.
2. According to Section 2.1, page 3 of the Final Parcel B Remedial Design Document V, Remedial Action Monitoring Plan, Remedial Action, Hunters Point Shipyard, San Francisco, California, dated August 19, 1999 (the RAMP) "A-aquifer groundwater levels will be measured in RAMP monitoring wells and in select monitoring wells in the vicinity of IR-06, IR-10, IR-25 and IR-42, where groundwater occurs at shallow depths." According to Table 4 of the Report and Table 4 of the Final September-December 1999 First Quarterly Groundwater Sampling Report for Parcel B, Hunters Point Shipyard, San Francisco, California (the First Quarter Report), only the 24 RAMP monitoring wells were monitored for water levels. Please clarify which additional monitoring wells will be monitored for water levels during future quarterly monitoring events. Based upon the potential presence of a groundwater mound in this area (see Figure 3 of the Report), water level measurements from these additional monitoring wells are necessary to understand potentially complex groundwater flow patterns in this area. Alternatively, if no additional monitoring wells are being proposed for water level monitoring as part of the quarterly monitoring program, please provide justification for this deviation from the RAMP.
3. While reviewing the Navy's Parcel D groundwater data gap field sampling plan, EPA noted that Table 4-2 of that report presents the results of an evaluation of all of the wells at the Hunters Point Shipyard site. This table indicates that wells IR07MWS-2, IR10MW31A, IR10MW33A and IR18MW21A from Parcel B are missing the top of casing survey elevation. This is confusing, since these wells are included in the water

- level monitoring for the Parcel B quarterly monitoring program. Based on this, EPA is concerned about the accuracy of the top of casing data and the accuracy of the water level data presented in the quarterly monitoring reports for Parcel B. Please clarify.
4. A fifth bullet should be added to the text on pages 1-2 regarding the purposes of the Parcel B Groundwater Monitoring Program. Per page 56 of the Parcel B ROD, "groundwater at IR-10 shall be monitored to track the potential degradation of TCE to vinyl chloride.... Should the levels of vinyl chloride and TCE increase, the Navy will activate the groundwater contingency measures." The primary purpose of monitoring the groundwater beneath Building 123 at IR-10 is to ensure that there is no threat or additional risk to future reusers due to exposures to concentrations of TCE, vinyl chloride or other VOCs via the air pathway above levels of concern. The report does address this in section 3.2.5 but it needs to be clarified in the introductory section of the report.
 5. The trigger levels for VOCs in Table 10 of the Parcel B ROD were derived from "human health-based criteria....Concentrations of these VOCs in groundwater correspond to an ELCR of 10⁻⁶ and were selected as a groundwater remedial action objective for protection of human health based on groundwater to indoor air modeling analysis." Therefore, the Navy should be comparing the monitoring results for VOCs in groundwater at Building 123/IR-10 to the trigger levels presented in the last column of Table 10 of the Parcel B ROD. However, after reviewing Appendix A of the quarterly groundwater monitoring report, it appears that the Navy is not consistently using these trigger levels. For example, page A-24, well IR10MW28A - the trigger level for vinyl chloride is 550 ug/l but it should be 55 ug/l. In this case it is not a problem anyway because vinyl chloride was ND at 1 ug/l but the navy should correct this problem in future reports. Another example is page A-26, well IR10MW33A - no trigger levels are listed for any of the VOCs.
 6. Please clarify why there is no monitoring well at Building 123/IR-10 in the vicinity of RI borings IR10B037, IR10B036 and IR10B035A. These borings are included in RA 10-1. Is the Navy going to install a monitoring well upon completion of excavation? (If this already addressed in the Parcel B RAMP, EPA apologizes for asking for further clarification.) For the record, EPA's concern is that it is at borings IR10B037, IR10B036 and IR10B035A that the highest concentrations of TCE were detected in soil and groundwater at IR-10. Vinyl chloride was not detected in groundwater samples collected from borings IR10B037, IR10B036 and IR10B035A during the RI. However, the groundwater samples were grab samples and any vinyl chloride would have been aerated and therefore not detected. Since some vinyl chloride was detected during the RI beneath building 123, conditions may support VOC degradation. Further, as noted in figure 4.6-1 of the RI, the maximum concentration of TCE detected in soil at IR-10 to depth of 10 feet was 180,000 ug/kg. At 11.25 feet, 980,000 ug/kg was detected. Therefore, EPA continues to believe it is prudent to monitor groundwater in the vicinity of RI borings IR10B037, IR10B036 and IR10B035A to keep track of potential air pathway threats as well as to

monitor the effectiveness of soil remediation in this portion of IR-10. In summary, please clarify in a the response to this comment if a monitoring well will be installed after IR10-1 is backfilled as well as the Navy's schedule for installation and sampling of this monitoring well.

7. Please comment on the fact that zinc was found to be elevated in groundwater samples in the second round of groundwater sampling on Parcel B as well as in the infiltrated groundwater samples collected during the Parcel B storm drain infiltration study. Both reports indicate that zinc is elevated in the groundwater in Parcel B and that it is in contact with San Francisco Bay (via the tidally influenced zone) and may be migrating to the Bay at a faster rate due to contaminated groundwater infiltration at Basin 2. EPA has some concerns about elevated zinc potentially impacting ecological receptors in San Francisco Bay. Could the Navy please comment on this.

SPECIFIC COMMENTS

1. **Section 2.2, Groundwater Sampling Procedures, page 4:** The first paragraph on this page states that submersible pumps were used for the low-flow sampling. However, the field sampling sheets, presented in Appendix B of the Report, indicate that peristaltic pumps were used for the low-flow sampling. Please clarify this apparent discrepancy.
2. **Section 3.2.1, Point-of-Compliance Monitoring Wells, pages 6 and 7:** The bullets at the end of page 6 and the beginning of page 7 identify the wells and constituents where exceedances of the trigger levels occurred. However, a review of the data presented in Appendix A indicates that the groundwater sample collected from point of compliance (POC) monitoring well IR07MW19A also had exceedances of barium (552 $\mu\text{g/l}$) and zinc (134 $\mu\text{g/l}$) using the dissolved metals analytical procedure. Please revise this section of the Report to indicate these exceedances, and please revise all other sections of the Report where a discussion of exceedances should include the exceedances detected in this sample (i.e. Section 3.2).
3. **Section 3.2.2, On- and Off-Site Migration Monitoring Wells, page 8:** The last paragraph on this page discusses the Aroclor-1221 analytical results, and states that the quantitation limit for Aroclor-1221 is 0.2 $\mu\text{g/l}$, slightly above the 0.19 $\mu\text{g/l}$ trigger level for this compound. This paragraph further states that the laboratory reports results less than the quantitation limit but greater than the method detection limit (MDL), if detected in the sample. Please clarify if any of the Aroclor-1221 sample analyses had detections above the MDL, and please indicate what the MDL is for the Aroclor-1221 sample analysis.
4. **Section 3.2.5, VOC Monitoring Well, page 10:** According to the Hunters Point Shipyard Parcel B Final Record of Decision, dated October 7, 1997 (the ROD), the remedial action objectives for groundwater at Parcel B are to 1) prevent the inhalation of

VOCs from A-aquifer groundwater that enters into buildings, and 2) prevent exposure of aquatic receptors to contaminated groundwater migrating to San Francisco Bay. The selected remedial alternative for groundwater at Parcel B, GW-2, is intended to achieve these objectives by tracking hazardous substance migration toward San Francisco Bay, evaluating and monitoring the effectiveness of soil remediation activities at IR-07 and IR-10, and tracking the potential degradation of TCE to vinyl chloride at IR-10. In order to evaluate if the remedial alternative is achieving these objectives, it would be helpful to have a table which provides a historical summary of the analytical results for TCE, cis-1,2-DCE (or total DCE) and vinyl chloride for the following monitoring wells: IR10 MW28A, IR10MW31A1, IR10MW33A, IR61MW05A and PA50MW01A. Please provide this table in the revised Report, and all subsequent quarterly monitoring reports.

5. **Section 3.3, Data Quality, page 11:** The first paragraph after the bullets on this page indicates that a quality control summary report, which will be presented in the annual report, will discuss all applicable quality control criteria, including comparison of field duplicate results. EPA has previously requested that the Navy provide a more complete evaluation of the data quality in the quarterly reports. The Navy's response to comments (RTCs) for the First Quarter Report, RTC number 3 indicated that the Navy does not believe quarterly reports are the appropriate forum to discuss data quality in such detail. However, this RTC does not address the potential need for corrective actions to field or laboratory procedures to ensure that the data quality of future quarterly monitoring events is not compromised.

In general, the purpose of data quality assessment is to evaluate if the collected data are of sufficient quality to achieve the data quality objectives (DQO) of the project. It is important to include this data quality assessment in each quarterly monitoring report, in order to demonstrate that the Navy is achieving the DQOs for this project, or to identify the need for corrective actions to the quarterly monitoring program, to ensure data collected during future quarterly monitoring events is of the appropriate quality. For example, if the precision of the field duplicate samples is outside of their specified control limits, these data may be rejected, and an additional year of quarterly monitoring events may be necessary to achieve the project objectives. An evaluation of the data quality on a quarterly basis may enable the Navy to identify appropriate corrective actions in a timely manner, to ensure that the data quality of subsequent quarterly monitoring events is not compromised. Please revise the Report to provide the requested data quality assessment. Alternatively, please provide additional justification for why such a quarterly data quality assessment is not necessary.

6. **Appendix A, page A-2:** The analytical results for the utility line monitoring well (IR06MW42A) indicate that the trigger level for hexavalent chromium (chromium VI) is 5 ug/l, while the quantitation limit is 10 ug/l. Please clarify if both the trigger level and the quantitation limit for this constituent are accurate. If they are accurate, please provide an explanation regarding how the Navy will verify that the analytical results for

groundwater samples collected from IR06MW42A are below the trigger level for chromium VI..

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**Comments on the Navy's Responses to EPA Comments on the
First Quarterly Groundwater Report for Parcel B, Hunters Point Shipyard**

- 1) In the Navy's response to EPA Comment 1a, they state that water levels were measured immediately prior to sampling to determine purge volumes, and these measurements are recorded on the monitoring well sampling sheets in Appendix B. This is incorrect - in our comment we identified the wells where these measurements were not collected, and Appendix B indicates this is still the case.

- 2) In its response to EPA Comment 3, the Navy states it is not necessary to include a thorough data quality assessment section in the quarterly reports, and that they will include this in the annual report. EPA does not concur with this approach. EPA Specific Comment 5 above on the Second Quarterly Groundwater Monitoring Report at Parcel B addresses this issue again.



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SUBJECT: Comments on the Second Quarterly GW Monitoring Report