



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

N00217.003014
HUNTERS POINT
SSIC NO. 5090.3

JUL 14 1994

William Radzevich (09AR1WR)
Western Division
Naval Facilities Engineering Command
900 Commodore Drive
San Bruno, CA 94066-2402

Subject: Parcel D Draft Final Site Inspection Report

Dear Mr. Radzevich:

We are in receipt of the Draft Final Parcel D Site Inspection (SI) Report submitted May 30, 1994. Thank you for the opportunity to review and comment on it. This letter and all of the attachments constitute our review.

As per the Federal Facility Agreement, the agencies have 30 days after the submittal of a draft final report to approve a document before it becomes a final document. As noted in our letter of June 28, 1994, the Navy extended the review period for this document to 45 days. As such, the U.S. Environmental Protection Agency (U.S. EPA) partially approves the Draft Final Parcel D SI Report/RI Work Plan as a final document. In particular, those portions of the report which describe the SI data collection methods and findings are approved. Further, the Remedial Investigation (RI) work plan tasks proposed for PA-48, PA-35, PA-38, PA-53 are approved as a Phase I RI effort. Additional phases of RI work, however, may be necessary at those sites and others, depending on the findings of this first phase. Appendix A, Attachments 1 through 5 provide relevant comments which must be addressed.

As you know, we met on May 13, 1994 to discuss several outstanding issues related to the Parcel B SI report as well as the SI reports for Parcels C, D, and E. A memorandum was submitted to you outlining these issues and is dated May 10, 1994 (Appendix B). In our meeting we endeavored to determine a course for the resolution of the issues outlined in the memorandum. We made great strides in resolving many of the outstanding issues and committed to a series of technical meetings to resolve those that remain. Appendix C contains a summary of our discussion of May 13, 1994 and provides the basis for our partial approval of the SI report/RI Work Plan.

Implicit, in our partial approval, however, is also a partial disapproval. U.S. EPA does not approve as final that portion of the report which relates to the Navy's recommendations for PA-45, PA-50, PA-51, PA-32, PA-33, PA-34, PA-36, PA-37, PA-

39, PA-44, and PA-55. Appendix A, Attachments 1 through 5, describes in more detail our rationale regarding each of these PA sites and issues which must still be resolved. Further, U.S. EPA does not approve as final, the overall scope of work for the RI stage of data collection. As determined in our meeting on May 13, 1994, a conceptual model of each of the parcels with an analysis of data quality objectives and data gaps is necessary before U.S. EPA can approve an overall RI scope.

As an immediate need, currently proposed RI work should be re-evaluated in the context of the Navy's hydrogeologic site conceptual model. In particular, the Navy must re-evaluate the location of proposed ground water monitoring wells to determine if proper consideration has been given to the impact of tidal influence on the groundwater flow direction. This, of course, is particularly important for those wells which are proposed specifically as "down gradient" wells which may, due to tidal influence, be down, up and/or cross-gradient.

As a final highlight, the proposed exploratory excavations must be scoped, planned and executed with agency participation. It is unclear from the SI report what administrative process the Navy is proposing for this work. In addition, it does not appear that appropriate preliminary remediation goals have yet been identified for the excavations. Both of these matters must be more fully explored with the agencies. We recommend a meeting to discuss these matters, as soon as possible.

It is our hope that our partial approval of the Parcel D SI Report will allow the Navy to continue its planned field work at those sites for which the work plan has been approved while ensuring that the Navy continue to meet with the agencies to resolve the other outstanding issues. If you have any questions, please contact me at (415) 744-2409.

Sincerely,



Alydda Mangelsdorf
Remedial Project Manager

cc: R. Hiatt, RWQCB
C. Shabahari, DTSC
R. Ramos, WESTDIV
R. Powell, WESTDIV
D. Klimas, NOAA
M. Martin, DFG
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A. Brownell, SFPHD
K. Glatzel, Port of San Francisco
J. Ruffolo, SF Bay Conservation and Development Commission
A. Williams, Mayor's Hunters Point Shipyard Citizens
Advisory Committee
S. Bloom, Arms Control Research Center
A. Elkins, Naval Base San Francisco
S. Murray, The New Bayview Committee
S. Madison, Businesses of Hunters Point Shipyard
B. Rhett, SF Redevelopment Agency
E. Welbon, Bayview Hunters Point Homeowners and Residential
Community Development Council
L. Katz, Law Offices of Leslie Katz
W. Allen, U.S. Department of Interior
C. Fortney, Bay Area Air Quality Management District

Appendix A--Attachments 1 through 5

1. General and Specific Comments
2. Table regarding concurrence on each PA site
3. Memorandum from Bonnie Arthur to Alydda Mangelsdorf, dated July 14, 1994
4. Memorandum from Matt Hagemann to Alydda Mangelsdorf, dated July 14, 1994
5. Memorandum from Daniel Stralka to Alydda Mangelsdorf, dated July 7, 1994

**Comments on the Navy's
Draft Final Parcel D Site Inspection Report**

1. In response to EPA's 1/3/94 comment Nos. 5 and 9 and comment No. 6 in the 3/23/94 memorandum from Alydda Mangelsdorf to Roberta Blank, the Navy indicates that to assess releases of contaminants to the environment soil borings adjacent to floor vaults and associated drains are sufficient. This is only true if the vaults and drains are damaged and leaking. The Navy should also assess the potential for contaminants to migrate to the Bay from undamaged vaults and drains by developing data on discharge points for floor drains, sumps, floor vaults, etc. The Navy should determine if these features typically discharged to the storm drain system, sanitary sewer system, underground storage tanks, or other collection point. Future sampling should include sampling of Bay discharge points, if such points are identified.
2. In response to EPA's 1/3/94 comment No. 8, the Navy indicates the status of leaking drums observed in 1988 is not known and no record of emergency response action is available. The SI report should clearly indicate whether sampling (PA34B006, -B008, -B009, -B011, -B013, and -SS14) was conducted in the area formerly used to store the leaking drums.
3. In response to EPA's 1/3/94 comment No. 9, the Navy did not address whether Building 274 is included in the facility-wide radiological investigation. As requested, the Navy should confirm that the building is, or is not, part of the radiological investigation.
4. In response to EPA's 1/3/94 comment Nos. 18 through 20, the Navy indicates they do not accept the EPA's recommendations for work plan revisions. Adequate information is not presented in the response to comments and in Appendix M, to support the Navy's refusal to incorporate EPA's proposed revisions. EPA's comments should be incorporated in the work plan or the responses to comments should be revised to present more specific reasons why EPA's comments were not incorporated.
5. The SI report should have included an integrated discussion of both the IR and SI results, conclusions, and recommendations for all of Parcel D. This comprehensive preliminary conceptual model of the site should have identified the individual contaminants and/or classes of contaminants that are of concern across Parcel D, illustrate exposure pathways for human and other biological receptors, and summarize the areas that are of concern and historical operations associated with each of these areas. See EPA's 3/24/94 general comments 4 and 5. As agreed for Parcels B and C, a conceptual model meeting for Parcel D should integrate IR and SI work, as well as proposed SI and SA work.

6. Associated with several of the PA sites are separate underground storage tank (UST) sites. The SI describes the proposed additional investigation at each of the UST sites. It should have also provided supporting data used to develop the proposed UST investigation strategy at each closure site. See EPA's 3/24/94 general comment No. 1. This can be integrated at the Parcel D conceptual model meeting.
7. In proposing additional RI work, the SI report does not assess whether this additional work is sufficient to prepare a parcel remedial investigation report. The additional RI data and existing data must be sufficient to prepare a parcel RI report, public health and environmental evaluation, and feasibility study. See EPA's 3/24/94 specific comment Nos. 2 and 24. This can be confirmed at the Parcel D conceptual model meeting.
8. Parcel D is bordered by San Francisco Bay. However, the Hunters Point facility boundary extends several hundred feet into the Bay. There are potential pathways of contaminant migration, either from Parcel D contaminant sources or through Parcel D from other parcels which may contribute to risk to biota which reside in, or rely on, the bay. In response to EPA's 1/31/94 comment No. 1, the Navy indicates data from the sanitary sewer, steam lines, and storm drain lines were not compared to HBLs because there is no exposure pathway. Storm drains, however, represent an aquatic receptor exposure pathway as may old sewer lines, steam lines, vaults, sumps, and floor drains. The RI work plan should be integrated with the ecological risk assessment, where possible. This plan should identify and incorporate criteria to screen on shore data for potential to cause ecological risk to the intertidal and near shore ecosystems and include sampling locations appropriate for determining the extent to which shore based contaminants have migrated to the bay. See EPA's 3/24/94 general comment No. 6 and specific comment No. 8 and comment No. 9 in the 3/23/94 memorandum from Alydda Mangelsdorf to Roberta Blank.
9. As requested by EPA's 3/24/94 general comment No. 2, the Navy should describe how commercial receptor risk levels will be used to limit exploratory excavations. The Navy and EPA should discuss and agree upon appropriate criteria for all exploratory excavations. Agreements reached now may limit the amount of additional remedial action required after completion of parcel feasibility studies.
10. The Navy and EPA should agree on the scope of removal action, remedial actions, housekeeping activities, and routine facility maintenance. See EPA's 3/24/94 specific comment 7 and the Navy's response.
11. In response to EPA's 3/24/94 specific comment No. 13, the Navy indicates field variances will be submitted following anticipated field activities. Since the Navy is currently planning the field investigation, anticipated field

activities should have been included in the remedial investigation work plan. This would have reduced the need for field variances and allowed EPA to review planned work prior to its execution. A comprehensive view of the overall remedial investigation work plan for Parcel D should be made part of the conceptual model meeting for Parcel D.

12. In many cases the Navy does not propose additional RI work when contaminants present at concentrations above health based levels are considered to represent non-point source releases. The Navy should develop and document quantitative criteria to distinguish between point source and non-point source contamination. These criteria may be based on a spatial analysis of specific contaminant or contaminant class occurrence (e.g., saturated hydrocarbons, halogenated unsaturated hydrocarbons, phenols, organochlorine insecticides, organophosphate insecticides). The analysis should consider the contaminant or contaminant class handling and usage practices, environmental fate, and transport mechanisms. See accompanying Evaluation of the Navy's Parcel D Preliminary Assessment Site Remedial Investigation Work Plans for specific areas requiring further rationale.
13. The comments made by Matthew Hagemann in his 3/16/94 letter to Roberta Blank have not been adequately resolved by the Navy's response. The requested information should, at a minimum, be included in the Navy's site wide hydrogeology report.

**Evaluation of the Navy's Parcel D
Preliminary Assessment (PA) Site Remedial Investigation Work Plans**

PA Site	Description	RI Work Plan Concurrency	Comments or Rationale
PA-45	Steam Lines	Concur Do not concur	Navy to remove friable asbestos outside the RI program. Removal of oil contaminated fluids should be conducted as part of RI program. Navy should develop arguments for the RI report to support the representativeness of steam line sampling points.
PA-48	Suspected Steam Lines	Concur	Navy conducted a geophysical survey, but, did not discover a steam line in the suspected location.
PA-50	Storm Drain and Sanitary Sewer Systems	Do not concur	Storm drain repair, sediment removal and sediment monitoring should be conducted as part of the RI program rather than as routine facility maintenance. Sediment samples should be collected at storm drain outfalls.
PA-51	Former Transformer Sites	Do not concur	Further rationale should be provided for not considering areas contaminated with Aroclors for further investigation.
PA-32	Building 383 and Regunning Pier	Do not Concur	Further investigation of newly discovered site assessment areas on the Regunning Pier should be incorporated into the RI work plan. MWPA32MW04A requires additional sampling.
PA-33	Buildings 302, 302A, 304, 364, 411, and 418	Do not concur	Further rationale should be provided for not considering areas contaminated with Arochlor 1254 for further investigation. Further investigation of newly discovered site assessment areas in and adjacent to PA-33 should be incorporated into the RI work plan.
PA-34	Buildings 351 and 366	Do not Concur	Additional sampling required in vicinity of PA34SS14.
PA-35	Buildings 274, 306, and Area Bounded by Manseau, Morell, and E Streets	Concur	No further comments.
PA-36	Buildings 371, 704, 400, 404A, 405, 406, 413, and 414	Do not concur	Further rationale should be provided for not considering areas contaminated with arsenic and methylene chloride for further investigation.

Appendix A--Attachment 2

PA Site	Description	RI Work Plan Concurrence	Comments or Rationale
PA-37	Buildings 401, 435, 436	Do not concur	Further rationale should be provided for not considering areas contaminated with TOG for further investigation. Further investigation of newly discovered site assessment areas in and adjacent to PA-37 should be incorporated into the RI work plan.
PA-38	Building 500	Concur	Lead found in a composite soil sample is associated with lead paint chips. This area is to be addressed in Navy's lead abatement program.
PA-39	Building 505 and area west of IR-13	Do not concur	Further rationale should be provided for not considering areas contaminated with Aroclor 1260 for further investigation.
PA-44	Buildings 408, 409, 410, 438, and metal shed	Do not concur	The PA-44 SI data are not sufficient to eliminate this area from further investigation. Further investigation of the newly discovered site assessment area in PA-44 should be incorporated into the RI work plan.
PA-53	Buildings 525 and 530	Concur	No further comments.
PA-55	Building 307 and surrounding	Do not concur	Further rationale should be provided for not considering areas contaminated with PAHs, arsenic, and lead for further investigation. Further investigation of newly discovered site assessment areas adjacent to PA-55 should be incorporated into the RI work plan.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

MEMORANDUM

SUBJECT: HPA Draft Final Parcel D SI Report

FROM: Ms. Bonnie Arthur

TO: Ms. Alydda Mangelsdorf

DATE: July 14, 1994

GENERAL COMMENTS

- 1) EPA does not agree with the "no further investigation" conclusion for PA-44, with the exception of Building 438 (proposed for sampling under the Site Assessment Program). Limited sampling was conducted at PA-44 and the "no further investigation" conclusion cannot be supported by the results of one soil boring (shallow sampling), two sandblast material samples and two storm drain samples given the suspected chemical usage described in Table 2. Specifically, the "Comments" column mentions that "sandblast material" is present and the building titles are suspect for Buildings 409, 410. Information is not provided regarding the "Building Shed." No soil borings were completed in proximity to these buildings. The SI workplans were accepted with limited proposed sampling in some areas, with the assumption that the data would be sufficient to guide further investigations if contaminants were detected. If contaminants were not detected in the limited borings, a "no further investigation" conclusion can not be justified. Additionally, once the direction of groundwater flow can be determined, it may be necessary to install [a] monitoring well/s at PA-44 to assess any groundwater migration impact from PA-33 and any other sites in close proximity.
- 2) The Parcel RI/FS must include a comprehensive analysis and presentation of all data. Data missing from this SI report which must be incorporated into the RI/FS includes the following: a) a comprehensive discussion of ecological receptors and screening of all data (including "non-point" data) utilizing ecological-based standards, mentioned on page 20 of the draft final SI, b) UST chemical analyses data (the draft final SI included locations of USTs), c) radiation survey results, and d) groundwater conceptual

model. Additionally, because the Site Assessment (SA) Program is currently operating separately from the PA/SI Process and the proposed sampling locations are not depicted on the SI report maps, it is difficult to draw conclusions regarding PAs which contain SA sites within their boundaries (e.g. PA-32 and PA-44).

- 3) Many areas with levels above Health Based Levels (HBLs) and/or the Navy's proposed Interim Ambient Levels (IALs) are not recommended for further investigation due to unknown criteria and/or an assessment that contamination in these areas are classified as "non-point." For screening purposes, it may be appropriate to limit investigations on a case-by-case basis, but this criteria must be clearly stated. Additionally, data from areas where levels exceed HBLs must be factored into the risk management decisions for each Parcel, and for assessment of ecological receptors exposure. Specifically, the IALs for arsenic, beryllium and nickel are higher than the HBL at the 10^{-6} risk level. Examples with levels above HBLs or IALs are detailed in #7 of "Specific Comments."
- 4) Appendix J includes a generic methodology for conducting "investigations by excavation." EPA would like to propose a meeting to further define the limits of these excavations and evaluate the timeliness of other removals, including the UST sites. Some issues which will be included in these discussions are listed below: 1) Is it appropriate to conduct EE/CAs or a generic ROD to cover specific types of soil contaminants? 2) Coordination issues with soil excavations and the removal of "appropriate sections of lines/utilidors" or housekeeping activities "to be performed outside of the RI program" (Table 6).
- 5) The criteria for conducting further investigations must be clearly stated in all reports. Observations discussed in tables or text should match the investigations in the field. It is expected that any exceptions would be notated in the field variance procedure. Examples of deficient record keeping or sampling are provided in #8, #10 and #12 of the "Specific Comments" section.
- 6) Each report which discusses or utilizes the HBL and IAL values as screening levels should include these values in a separate table without site specific data.
- 7) Provide explanation for how the locations with sandblast materials will be "included in the sandblast grit fixation program" (for example, PA 35)?

- 8) Please specify which valence of chromium is detected on future plates of all site reports.
- 9) Will monitoring wells continue to be sampled if the results are reported as non-detect in the SI report?

SPECIFIC COMMENTS

- 1) Page 9: Clarify how the planned removal action in IR-9, the Pickling and Plate Yard, and proposed investigations "to close a data gap" will impact each other.
- 2) Pages 9-10: The text inaccurately states that groundwater samples collected from IR-17 monitoring wells have not detected concentrations above MCLs. However, according to the 8/26/93 "draft ASR, Interim-Action Group 5 report," antimony has been detected in concentrations greater than the MCL. These monitoring wells should be included in the overall site groundwater monitoring plan. Additionally, as IR-17 may potentially contribute a risk via the air pathway, this data should be evaluated in the Parcel D RI/FS and a discussion should be provided to address possible soil sources in this area.
- 3) Page 16: What is the proposed plan for sites where fieldwork was not completed as described below?: a) A site was considered to be "inadequately sampled if samples could not be collected where maximum contamination from a release would be detected or not enough samples could be collected." b) Borings and/or surface samples were not "drilled or collected where the maximum concentrations associated with a release would most likely be found (i.e. through the bottom of the sump) as a result of physical constraints such as sump structure/geometry, a confined space access problem, or the presence of fluids in a sump. In these cases, additional work has been recommended at the site; work would be coordinated with Naval Station Treasure Island (NSTI) to attempt to overcome the physical constraints noted during the SI."
- 4) Page 20: It is premature to rule out the potential for the entire A-aquifer below Parcel D to be considered a "primary exposure pathway because of the limited potential for use of this groundwater as a drinking water or domestic water source"? In the future, it is acceptable to discuss the TDS and salinity levels, but in this case these conclusions for the entire Parcel are based on 1 piezometer. Groundwater samples taken from the center and west side of Parcel D may not have salinity or TDS levels which would limit their future drinking water use.

- 5) Page 42 and Table 12: Please include in future reports locations of sub-stations or transformers if "some staining was noted, however, no sampling was completed" (for example, Buildings 409, 411 and 523).
- 6) Page 43: Please include data from other consultants in text and maps. It is acceptable to note that data may be qualitative if QA/QC cannot be defended. It is difficult to evaluate the contaminant levels depicted on the maps if data from other consultants (i.e. EMCON) is not included (example, Plate 22 BE 2-1, BE 3-6, BF 2-2).
- 7) Page 46: It is inappropriate to use the standard for trihalomethanes as rationale for accepting chloroform levels above the HBLs. Trihalomethanes are formed due to the reaction between naturally occurring humus materials and chlorination processes required for drinking water purification. The MCL for trihalomethanes [chloroform] resulting from the chlorination process is set above health conservative levels corresponding to the Best Available Technologies (BAT) for water treatment. It appears that the occurrence of chloroform in MWPA32MW04A is due to the industrial practices at HPA. This well must continue to be sampled to monitor the chloroform levels.
- 8) As mentioned in #3 under "General Comments," many areas with levels above Health Based Levels (HBLs) and/or the Navy's proposed Interim Ambient Levels (IALs) are not recommended for further investigation due to unknown criteria and/or an assessment that contamination in these areas are classified as "non-point." The criteria for these case-by-case decisions must be provided. Examples of PA sites with areas greater than IALs and/or HBLs:
 - a) Page 53, PA 33

PA33B053: Arochlor, Cu
PA33B035: >IALs for Vanadium at 2.25 feet and 6.75 feet
PA33FV26: >HBLs for benzo(a)anthracene, PCBs, As, Pb
>IALs for Cd, Cu, Fe, Pb, Mn, Zn, Mo
 - b) PA 55

test pit PA55TA07: > HBLs for benzo(a)pyrene
> IALs for Pb
 - c) Page 71, PA 39

PA39B005, PA39B004: > HBL for PCBs.
- 9) Page 54, PA 34: Any deviations from proposed workplans must be documented. At PA 34, only samples collected from a

depth of 1.25 feet were analyzed from Boring PA34SS14. The "7/22/92 Draft Final, SI Workplan-PA Other Areas/Utilities, Volume III of III; 26 sites" proposed analyses of samples from greater depths. PCBs were detected in this sample at levels above the HBL. Additionally, sometime after the soil sample was collected, a water main rupture required soil excavation in this area. Is there adequate coordination between the base facilities employees and WESTIV to ensure that the base employees are appraised of the soil contamination levels?

- 10) Page 69, PA 39: As PA-39 is located in Parcels D and E it might be advisable to spilt up this PA, or redefine the boundary prior to the Parcel RI/FS in order to more effectively evaluate the data.
- 11) The text and tables for PA-51 and PA-45 include detailed field observations and criteria for sampling these areas. There were several observations, which as stated in the text and/or appropriate tables warrant further investigations, however, no investigations were completed and no rationale was provided. Examples are provided below:
 - A) PA-51; Table 12 lists the "Comments" pertaining to the transformer locations (PA-51), however, the investigations completed do not correlate to the observations in the following cases:
 - i) Substation area in Building 411.
 - ii) Building 523, South Pier ("Abundant staining on concrete at former transformer location and throughout substation area. Substation is above the bay.").
 - iii) Building 409. An initial report mentions leakage of oil onto soil (HLA, 1990a). The SI fieldwork concluded that there was "no evidence of staining on the concrete pad or on soil adjacent to pad." Are the other proposed sampling locations for this building in the proximity of staining mentioned in the earlier notation?
 - B) PA-45: Table 5 lists the "Other Observations" pertaining to the steam lines (PA-45), however, the sampling completed does not match the observations in the following cases:
 - i) Lines to Buildings 323, 324, 364 (sampling location PA45ST414 was not sampled apparently because no liquid was present and no test pit was completed; however, Table 3 reports that there was

oil staining on the bottom of the utilidor), 400, 406, 414, 413, 418, 424, 513, 516.

- ii) Soil sampling near Station Number PA45ST417 ("visual vault observation only. Badly rusted pipes. Possible oil staining"), PA45ST419 ("visual vault observation only. Slight oil staining on vault sides. Some standing water, slight petroleum odor").
 - iii) Soil sampling near Station Number PA45ST420 ("visual vault observation only. Oil staining in vault and or pipe exteriors").
 - iv) Test pits PA45TA14-16 were excavated, however, no soil samples were analyzed. At the adjacent Station Point, PA45ST402, visible oil staining in lines and liquid in lines were observed (Table 5) and the oil sample analyzed at this location contained benzene at 1.5 ppm and TPH-gasoline at 80,000 ppm (Plate 8C). The test pit logs in Appendix E state that no samples were collected from these three locations and no explanation is provided.
- 12) Table 6: Also, the activity "evaluate extent of contaminants adjacent to utilidors by trenching" states that a maximum of 3 samples will be taken, per trench. A minimum number of samples should also be designated.
- 13) Plates 8B and 8C: Will additional investigations be proposed for the following steam line areas not investigated under this round of SI fieldwork?:
- a) Berths 16, 17, 20: located east of Regunning Pier (the pipe interiors were dry at the nearby PA45ST405 sample location).
 - b) Berths 11, 12: located east of Berth 10.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

July 14, 1994

MEMORANDUM

SUBJECT: Review of Final Draft, Parcel D SI, Hunters Point

FROM: Matt Hagemann, Hydrogeologist
Technical Support Section (H-9-3)

TO: Alydda Mangelsdorf, RPM
Hunters Point (H-9-2)

- (1) P. 20: On the basis of a single TDS sample from a single well (PA35P01A), the A-aquifer was excluded from consideration as a primary exposure pathway. Groundwater from the A-aquifer cannot be excluded as a primary exposure pathway for the following reasons:
 - (a) The well from which the sample was taken (which is not shown in any plate in the SI) cannot be more than 600 feet from the shoreline. This single location does not necessarily reflect the water quality of the entire parcel.
 - (b) The aquifer must be considered to be a source of underground drinking water unless and until it is exempted under provisions 40 CFR Part 144 as adopted by the R9 Groundwater Steering Committee.
- (2) PA-45, Steam Lines:
 - (a) PA-45 is constituted by over approximately 2.5 miles of steam lines. Of that, oil has been confirmed in about 0.5 mile of the lines. Oil is suspected in approximately another 0.25 mile of the lines.

SI sampling occurred only along a fraction of the length of lines. For instance, along Manseau St. in the vicinity of Bldg. 408, no samples were collected along a 400 foot length of the lines where oil was identified. Even in areas where investigations were performed, the SI confirmed only one release of oil to the subsurface from the steam lines even though the

system is known to have numerous leaks. (The other identified release of oil was detected by happenstance prior to initiation of the SI when a water line broke.)

Test pits and Hydropunch are only proposed in the work plan for the area near the intersection of Cochrane and Manseau Streets where oil was observed in the steam lines and adjacent soils. It is my opinion that sampling was inadequate in other areas along the steam lines to determine if a release had occurred. Specifically, additional trenching, boring and hydropunch investigations should be conducted:

- (i) in the vicinity of PA45TA13 (Whereas in the text, additional investigations for this area are recommended, none are shown on Plate 9.) and;
- (ii) along Manseau Street, particularly between H and Cochrane Streets.

Additionally, analytical data from any monitoring wells completed in the vicinity of the steam lines for other investigations should be examined as an indication of a release to groundwater from contaminants in the lines.

- (b) The reference to Plate 10 for the proposed workplan is incorrect; the correct reference is Plate 9.
- (c) The steam lines extend off of Plate 8C. A map should be included that shows the complete extent of the steam lines.

(3) PA-50, Storm Drains:

- (a) Considering the high levels of numerous constituents in the soil at numerous sites adjacent to the storm drains, a comprehensive groundwater monitoring system should be established adjacent to the lines to determine if a release has occurred to groundwater.
- (b) Further justification for the conclusion that soil sampling adjacent to the breaks in the pipeline is not warranted (p. 36) should be included.

(4) PA-33, North:

- (a) A monitoring well (MW60A) is proposed "upgradient" of Bldg. 302; however, review of Plate 4 (groundwater elevation map) does not indicate that this well would be upgradient. Instead, if the contours were extended to the vicinity of Bldg. 302, the well may actually be downgradient of the suspected source.

- (b) Prior to the proposed drilling/Hydropunch activities, a review of the groundwater flow directions, as corrected for tidal fluctuations, is warranted to ensure that sampling points are downgradient of sources.

(5) PA-34:

- (a) Additional soil and groundwater sampling should be conducted in the vicinity of PA34SS14 to determine extent of PCB release. The fate of the excavated soils should also be investigated further.

(6) PA-36, West:

- (a) The groundwater flow directions in the vicinity of monitoring wells PA36MW06A and PA36MW08A may have a northward component. Monitoring wells/Hydropunch for PA-36 are only proposed southward of suspected sources. Additional monitoring wells/Hydropunch should be considered to the north of these sources.

- (7) Additional investigations for the sources of the PCB detected in PA39B004 and PA39B005 should be conducted.

General Comment: In accordance with the May 27, 1992 OSWER Directive, the potential for the presence of a DNAPL should be specifically addressed, in a separate section of the RI, for each site. The EPA guidance, *Estimating Potential for the Presence of a DNAPL at Superfund Sites*, 1992, should be used to perform this assessment.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

Memorandum

To: Alydda Mangelsdorf (H-9-2)
Remedial Project Manger

From: Daniel Stralka Ph.D. (H-9-3)
Regional Toxicologist

Subject: Review of Hunters Point Annex, Risk Assessment Appendix
H, Parcel D Site Inspection Report, Draft Final,
dated May 30, 1994.

Date: 7 July, 1994

I have reviewed the Risk Assessment included as part of the above document and in general find it to be sufficient for the SI phase. The Public Summary is a good start at presenting the overview of the parcel project but the documents that were previously done should be referenced so that the public could locate specific documents in the library. This report is focused on only a few areas and the reason for this limited effort is unclear. For those areas the report the risk assessment seems sufficient with the following comments.

Comments

1. Section 2.1 PA-32 What type of operations were supplied by Building 383 shipping and receiving and in what quantities? How would "regunning" be described? These points should have been briefly discussed in the "Background" section.
2. Section 2.1 last paragraph. Reference to the Region 9 PRG tables for the provisional toxicity values for Aluminum and Cobalt should have been included in the evaluation.
3. Section 3.1 Exposure to Groundwater. Current and future groundwater use was correctly evaluated using a residential scenario. However, all volatile organics should be evaluated via the inhalation route. The text appears to incorrectly indicate that only chloroform will be addressed in this manner in the future.

4. Section 3.1 page H-5, 2nd para. The Central Valley Regional Water Quality Control Board reference used in this document suggests that on sites with ground water shallower than 100 feet and releases in close proximity to surface water an attenuation factor of 1-10 should be used not the 100 which was applied here.
5. Section 3.1 page H-6, top of the page. Discussion of the appropriateness and reference to the derivation of the sorption coefficients (Kd) should be included.
6. Section 3.2 Exposure to Surface Soils. The exclusion of the inhalation pathway from soils is not appropriate for compounds that present a risk via inhalation. This pathway should be evaluated at each site based on the chemicals detected.
7. Section 4.2 Lead Toxicity Assessment. It is incorrect to give the impression that no toxicity values exist for lead and that therefore an alternate procedure is being applied. The discussion should clearly present that the pharmacokinetic model is an advance over the previous toxicity values and addresses the concentration of contaminant that is internalized and could be measured in the body.
7. Section 5.2 Site-Specific Risk Results. It should be reiterated for clarity that the exposure scenario being evaluated is the residential exposure scenario. Evaluation of any additional exposure scenarios should be clearly identified. Evaluation of any alternate exposure scenarios should be identified and fully justified.
8. Table H-17. The total cancer risk can not be less than the individual component risk. The table should be modified to include this correction.

Appendix B

Memorandum from Alydda Mangelsdorf to Bill McAvoy,
dated May 10, 1994



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

MAY 10 1994

MEMORANDUM

TO: Bill McAvoy
Naval Facilities Engineering Command

FROM: Alydda Mangelsdorf
U.S. Environmental Protection Agency *AM*

SUBJECT: May 13, 1994 Meeting

The following is a list of topics related to the U.S. Environmental Protection Agency's (EPA) review of the Parcel B Site Inspection (SI) Report which are still unresolved. It is my hope that we can informally resolve these issues in our meeting on May 13, 1994. While raised in the context of the Parcel B SI report, these issues apply to each of the Parcel SI Reports.

1. The RI Workplan must be based on a Conceptual Model of contamination at each parcel, derived from an evaluation of all data for each parcel, including both SI and RI data. Data Quality Objectives must be formed and an assessment of data gaps made to ensure that all necessary data will be collected in the RI stage, sufficient to select and design a remedy.
2. No SI sites can be dismissed from further investigation until the likelihood of their contributing to ecological risk is assessed. To achieve this, ecological criteria must be identified or developed to screen the SI data.
3. No SI sites can be dismissed from further investigation until their contribution to a cumulative risk is assessed.
4. No SI sites can be dismissed from further investigation based on Interim Ambient Levels (IAL) until Agency-approved IALs have been applied to those contaminants for which agency-approved IALs are lower than those IALs currently in place.
5. No SI sites can be dismissed from further investigation simply because investigators failed to identify a point source of environmental contaminants measured. Until risk management decisions are formally made, one can not presume that non-point source contamination, especially if in excess of ecological or human health criteria, will be left unremediated, thereby requiring no further characterization.

Appendix C

Summary of May 13, 1994 Meeting with the Navy

Appendix C
Summary of the May 13, 1994 Meeting

1. Conceptual Model/DQOs

The Navy agreed to a series of technical meetings for the purpose of developing a conceptual model for each parcel. Beginning with a meeting on Thursday, June 16, 1994, the project managers team will review all the data available for Parcel B and attempt to correlate it in such a way as to develop a conceptual model of site contamination and migration. We will endeavor to identify current data gaps to be filled in subsequent phases of RI work. The project managers team will include ecological and human health risk assessors, design engineers, hydrogeologists, and source investigators to ensure that appropriate DQOs are identified for each data user.

2. Ecological Criteria

The Phase 1A Ecological Risk Assessment data presentation is scheduled for Friday, June 10, 1994 and will include an evaluation of all SI data as compared to ecologically-based screening criteria, as recommended by U.S. EPA in the SI comments.

Still Outstanding: Currently there are no plans to evaluate whether detection limits have been low enough to detect contamination of potential ecological risk. Further, there is no plan to evaluate the appropriateness of the SI sampling design for the purpose of measuring potential ecological risk.

3. Cumulative Risk

The Navy will evaluate all SI sites--even those not recommended for RI work--for their potential to contribute to cumulative risk as part of its parcel-specific risk assessment.

4. Interim Ambient Levels

The Navy will be providing comment on California Environmental Protection Agency's proposed Interim Ambient Levels (IAL).

Still Outstanding: The Navy has not yet agreed to use agency-approved IALs. No specific process for resolution of this matter was proposed.

5. **Source Identification**

The Navy agreed to reconsider those sites at which contaminants were measured but no point source was identified. It agreed to provide a written site-specific explanation for its recommendations at these sites rather than rely on a "non-point source" argument. Further, it agreed to consider further investigation at those sites if an explanation could not be given.