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HUNTERS POINT
SSIC NO. 5090.3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

AUG 29 1994

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

Subject: Addendum No. 5, Parcel A, Site Inspection Work Plan

Dear Mr. Radzevich:

Thank you for the submittal of the Addendum No. 5, Parcel A, Site Inspection Work Plan dated August 16, 1994. Enclosed please find our comments on the document. A suggestion was made at the last Restoration Advisory Board meeting that comments provide greater guidance. The comments enclosed are an attempt to implement this suggestion--offering specific language changes which would satisfy our concerns. Thus, the comments are also submitted in electronic format to reduce your effort in making the suggested changes.

If you should have any questions, please contact me at (415) 744-2409.

Sincerely,


Alydda Mangelsdorf
Remedial Project Manager

cc: RAB members

General Comments

1. The Navy should consider analytical methods that provide detection limits less than health based levels for benzo(a)pyrene. Table 1 indicates the currently available detection limit exceeds the health based level by a factor of three. This relationship between health based level and detection limit may lead to reporting non-detects for benzo(a)pyrene when it is present at levels that represent a health risk.
2. In the course of the proposed field work, the Navy should carefully collect field data to support the hypothesis that sandblast grit was not commonly used as a bedding material for sewer lines. This field data should include detailed excavation logs, photographs and a comparison of the observed sewer line configuration to as-built drawings.
3. The Navy has collected substantial data to characterize sandblast grit material found throughout the Hunters Point Annex facility. To our knowledge, the data collected throughout the site does not indicate an association of pesticides, such as were found in the utility trench in Parcel A, and sandblast grit material.

Much of the sandblast grit material collected throughout the facility has undergone treatment/fixation on-site to be converted to asphalt for site road repair. As discussed in our meeting of August 4, 1994, the presence of DDT in sandblast grit material would prevent the grit from being safely utilized in the sandblast grit fixation program. As such, it appears that sandblast grit has typically not been associated with pesticide contamination at HPA, a fact which should be presented more clearly in the workplan.

The Navy should evaluate the feasibility of washing from the sandblast grit found in Parcel A the pesticide contaminated fraction so that the grit itself can be treated on-site in the sandblast grit fixation program.

4. According to Attachment A of the workplan, the Millipore field test method for DDT is unable to differentiate between DDT, its metabolites and other structurally similar compounds. Thus, all references in the workplan to use of the field screening method to identify levels of 4,4'-DDT

should be revised to more accurately identify DDT as the field screen analyte.

5. In addition to those compounds identified in the workplan, laboratory confirmation samples should be analyzed for MCPA and MCPB which were contaminants of concern at the Gardener's Shed.

Specific Comments

1. Section 1.0, **Introduction**, page 1, second sentence. This sentence should be revised to read: "The activities covered by this addendum include an investigation of the extent of sandblast grit material in the utility trench; the source, nature and extent of contaminants which have been found mixed with the sandblast grit material; and the excavation of sandblast grit material and any contaminated soil found above levels of concern."

A third and fourth sentence should be added which read: "Investigation of potential groundwater contamination is not included in this workplan but may be included in a subsequent addendum should the investigation of soil and sandblast grit contamination suggest a risk of contaminant migration to groundwater. Further, investigation of potential soil contamination is limited in this workplan to a residential lot of approximately 11,250 square feet but may be expanded in a subsequent addendum if the investigation of soil and sandblast grit contamination suggests that either: a) the sandblast grit is associated with pesticide contamination and may have been used more widely throughout Parcel A or b) pesticides are only coincidentally associated with the sandblast grit material and is otherwise found at levels of concern throughout the utility trench."

2. Section 1.1, **Subsequent Investigations**, page 4, first paragraph, fourth sentence. Please strike "At the suggestion of the U.S. Environmental Protection Agency (EPA)..." This request was never made.

Also, please include the results of the radiation screening as an appendix and reference the appendix in this section.

3. Section 1.1, **Subsequent Investigations**, page 4, fourth paragraph, third sentence. Please revise this sentence to

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read: "These additional samples, consisting of three shallow surface soil samples (IR59SS03, IR59SS04, and IR59SS05), were collected to evaluate whether or not the utility trench forms the lateral boundary of surface soil contamination."

4. Section 1.1, **Subsequent Investigations**, page 5, second paragraph. Please revise this paragraph to read: "The laboratory analysis of the three surface soil samples detected the presence of metals, pesticides, TPH-d, and TPH-mo, only (see Tables 1 through 4). Of the metals detected, only lead in sample SS03 was detected at a level above the interim ambient level (IAL) proposed by the Navy for that compound."
5. Section 1.1, **Subsequent Investigations**, page 5, third paragraph, last sentence. Please revise this sentence to read: "The Navy suspects that the sewer lines in Parcel A were modified by the Triple A Machine Shop during their tenancy at HPA." Further, please add a sentence which reads; "However, Triple A's use of sandblast grit from the Dry dock 4 hopper as backfill material in Parcel A is only a speculation at this time."
6. Section 1.1, **Subsequent Investigations**, page 5, fourth paragraph, second sentence. After the second sentence of this paragraph, please add a sentence which explains the degree to which the 1000 gallons of ponded water which was drained to the sewer line from this location may have impacted the results of these samples.
7. Section 1.1, **Subsequent Investigations**, page 5, fourth paragraph, seventh sentence. Please delete the 7th, 8th, and 9th sentences and replace them with one sentence which reads either:
 - a. "Sandblast grit material was not found in any other location besides the location which originally prompted the investigation." or
 - b. "Sandblast grit material was found randomly within the residential lot, with no findings identified on the northeast boundary."
8. Section 2.0, **Contaminants of Concern**, page 6, first paragraph, second sentence. Please modify this sentence to

confirm that the HBLs used are based on a 10^{-6} cancer risk level and a hazard index of 1 for non-carcinogenic contaminants.

9. Section 2.0, **Contaminants of Concern**, page 6, second paragraph, third paragraph. Please modify this sentence to read: "In addition, though not yet released, Cal/EPA has developed a PRG for 4,4'-DDT of 1.2 ppm." Add a sentence which reads: "Further, literature regarding the toxicity of DDT to ecological receptors shows egg shell thinning in raptors at 0.1 ppm." Please note that the correct ecological screening criteria is 0.1 ppm, not 1.0 ppm as written in the draft workplan. While 0.1 ppm is a conservative figure, until the extent of contamination is better defined, it is the opinion of our ecologist that 0.1 ppm DDT is an appropriate criteria for screening purposes.
10. Section 2.0. **Contaminants of Concern**, page 6, third paragraph, first sentence. The first sentence is in error and should be deleted. Please replace the first and second sentence with language which reads: "Of the metals detected in the soil samples thus far collected, several were detected within the same order of magnitude as the identified levels of concern, including: arsenic, copper, lead, manganese, molybdenum, nickel, potassium, and zinc. Of these, only manganese is found at levels which exceed the PRG; and, copper, lead, and zinc are found at levels which exceed the respective IALs.
11. Section 2.0, **Contaminants of Concern**, page 6, fourth paragraph. Please add language which makes note of the fact that the detection limit for benzo(a)pyrene is three times greater than the PRG for this chemical. Further, please confirm whether or not the reporting levels for samples collected at SS03 through SS05 were identified as the detection limit or the quantitation limit; and, please report all levels below the detection limit which were quantified.
12. Section 3.2, **Possible Site History Scenarios**, page 8. Please revise the title of this section to read: "Site Conceptual Model."
13. Section 3.2, **Possible Site History Scenarios**, page 8, first paragraph. Please revise this paragraph to read: "The

development of this workplan is based on a conceptual model of the site which considers two major scenarios by which SOC, pesticide, petroleum, and metal contamination have come to be located in a utility trench on a residential lot in Parcel A. In both scenarios it is assumed that the sandblast grit material was imported to the site from stockpiled grit material found elsewhere across HPA and that sandblast grit generally contains elevated levels of metals such as lead, copper and zinc. The two major scenarios are described below with several variations outlined."

14. Section 3.2, **Possible Site History Scenarios**, page 8, numbered paragraphs 1 through 5. Please revise these paragraphs to read:
 1. The contaminants identified in the residential lot on Parcel A (SOCs, pesticides, petroleum, and metals) may have been imported to Parcel A from another location. For example:
 - a. The sandblast grit material found in the residential lot in Parcel A may have been contaminated with petroleum and pesticides prior to being imported to Parcel A. Such contamination could have occurred through: application of pesticides in a petroleum base to stockpiled sandblast grit and/or its surrounding area; disposal of waste pesticides and petroleum to stockpiled sandblast grit; or some combination of the two.
 - b. The contaminants found in the residential lot in Parcel A may have been separately imported to the site. For example, subsequent to importing sandblast grit material to the utility trench in the residential lot, waste pesticides and petroleum could also have been disposed of to the utility trench. Similarly, soil may have been imported for use as backfill, along with the sandblast grit material, and may have been contaminated prior to its placement in Parcel A.
 2. The contaminants identified in the residential lot on Parcel A may have migrated to the residential lot on Parcel A from some other location on Parcel A. Below are some of the potential sources of contaminants and

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their migration pathways.

- a. Pesticides (including arsenic), fertilizers (including metals) and petroleum products stored and mixed at the Gardener's Shed may have been: i) spilled on the ground and have migrated via surface flow to the down gradient utility trench; ii) spilled on the ground and have migrated via surface flow to the storm drain catchment basin and into the utility trench through leaks and breaks in the line; or iii) disposed of directly to the storm drain catchment basin or sanitary sewer and have migrated to the utility trench through leaks and breaks in the line.
 - b. Pesticides (including arsenic), fertilizers (including metals) and petroleum products may have been applied regularly around residences in Parcel A, leaving soil residuals which are: i) common throughout the site; ii) concentrated in utility trenches by preferential subsurface migration; or iii) concentrated in utility trenches via migration through the storm drain system to the trench through leaks and breaks in the line.
 - c. Pesticides (including arsenic), fertilizers (including metals) and petroleum products may have been randomly buried, either with or without containers, in unknown locations throughout Parcel A and have migrated through the subsurface to intercept the utility trench.
 - d. Pesticides either mixed with petroleum or not may have been applied in quantity under the foundation of Parcel A residences (including the quonset huts) prior to their construction and have migrated via surface flow to the surrounding property and utility trenches or via property drainage systems, such as subsurface roof drains, to the utility trench through leaks and breaks in the line.
15. Section 4.0, **Sampling Approach and Rationale**, page 9, introductory paragraph. Please delete the phrase "...sandblast grit discovered..." and replace it with "...utility trench uncovered..."

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16. Section 4.0, **Sampling Approach and Rationale**, page 9, first bullet, first sentence. Please insert after the first sentence a sentence which reads: "These samples will be collected from a location which was not impacted by the flushing of ponded water from the site surface to the sanitary sewer line."
17. Section 4.0, **Sampling Approach and Rationale**, page 9, third bullet, first sentence. Please add the following phrase to the end of the first sentence: "...and other property drainage systems."
18. Section 4.0, **Sampling Approach and Rationale**, page 10, first bullet, third sentence. According to Attachment A of the workplan, the Millipore field test kit "allows for rapid semi-quantitative screening for DDT at 0.2, 1.0 and 10.0 parts per million (ppm) in soils." Please revise the third sentence of this bullet to identify 0.2 ppm as the detection limit for DDT.
19. Section 4.0, **Sampling Approach and Rationale**, page 10, second bullet. After the words "...full length of the sewer line..." please insert a comma and the words "property drainage lines,..." After the words "...spotty presence of sandblast grit material..." insert the words "and expose the utility trench for soil sampling throughout the lot."
20. Section 4.0, **Sampling Approach and Rationale**, page 10, third bullet, second sentence. Please add at the end of this sentence the words "...which ever distance is shorter."
21. Section 4.0, **Sampling Approach and Rationale**, page 10, fourth bullet, first sentence. Please revise the first sentence to read: "At locations where use of the field screening test kit indicates that levels of DDT in soil or sandblast grit material exceeds 0.2 ppm, additional samples will be collected for confirmatory analysis in an analytical laboratory." Please note that confirmation sampling should not be limited to only those areas where sandblast grit material was present.
22. Section 4.0, **Sampling Approach and Rationale**, page 10, sixth bullet. Prior to the sixth bullet, please insert a bullet which reads: "If any soil samples indicate the presence of contaminants above a level of concern in the vicinity of sewer line or property drainage line joints, then collect

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sewer/drain sediment samples for analysis of SOCs, metals, petroleum and pesticides, including MCPA and MCPB.

23. Section 4.0, **Sampling Approach and Rationale**, page 10, sixth bullet. Prior to the sixth bullet, please insert a bullet which identifies a series of soil samples to be collected from around the quonset hut foundations to test conceptual model scenario #2d.
24. Section 4.0, **Sampling Approach and Rationale**, page 10, sixth bullet. Please revise this bullet to read: "Confirm with the regulatory agencies that no additional or split samples are required then backfill the excavated area with compacted "clean" soil."
25. Section 5.0, **Documentation of Results**, page 10. Please renumber this section as Section 6.0. Insert a new Section 5.0 entitled "Data Quality Objectives and Data Interpretation." Propose a new Section 5.0 which discusses the DQOs for this effort, including the limitations of the field screening methods (especially as regards the ecological screening criteria). Further, include in a new Section 5.0 a discussion of the ways in which the data will be interpreted. In particular, include a discussion of the findings which will trigger additional investigation, be it: groundwater investigation, down gradient sewer or storm drain investigation, or more laterally comprehensive soil investigation. This section will be critical to the team's ability to reach consensus on the workplan and the overall approach.
26. Section 5.0, **Documentation of Results**, page 10. Please see General Comment #2.