



Department of Toxic Substances Control



Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Edwin F. Lowry, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721

N00236.001723
ALAMEDA POINT
SSIC NO. 5090.3

Gray Davis
Governor

August 18, 2003

Ms. Glenna Clark
Department of Navy
Southwest Division
Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100
San Diego, CA 92101

DRAFT SUPPLEMENTAL SAMPLING AND ANALYSIS PLAN, SITE 7, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Dear Ms. Clark:

The Department of Toxic Substances Control (DTSC) has reviewed the above referenced document dated July 15, 2003. Our comments are attached. Should you have any questions, please contact me at 510-540-3767.

Sincerely,

Marcia Liao, Ph.D., CHMM
Hazardous Substances Engineer
Office of Military Facilities

enclosure

Mr. Glenna Clark
Page 2
August 18, 2003

cc: Michael McClelland, SWDiv
Andrew Dick, SWDiv
Mark Ripperda, EPA
Judy Huang, RWQCB
Elizabeth Johnson, City of Alameda
Peter Russel, Northgate Environmental
Bert Morgan, RAB Co-Chair
Lea Loizos, Arc Ecology

DTSC COMMENTS
DRAFT SUPPLEMENTAL SAMPLING AND ANALYSIS PLAN
SITE 7
ALAMEDA POINT, ALAMEDA, CALIFORNIA

MAJOR COMMENTS

Data Quality Objective (DQO)

1. A review of the soil analytical data in Appendix F indicates that the blue, crystalline debris layer observed south of Building 459 contains high concentrations of metals including copper, lead, and zinc. It may also contain other hazardous constituents, such as dioxin, at elevated levels.

Although Appendix F is incomplete (page 1 and pages 14 through 18 of Appendix F are missing), more than half of the samples tested -- or 11 out of 21 -- exceeded the Total Threshold Limit (TTLC) for copper, lead, and zinc qualifying the debris as hazardous waste in California. A comparison of the Appendix F data with the U.S. EPA Preliminary Remediation Goals (PRGs) shows that every sample tested exceeded the residential as well as industrial PRGs for arsenic. For metals other than arsenic, 13 samples out of 21 exceeded the residential PRGs and 11 out of 21 exceeded industrial PRGs.

Given that more than 21 samples have been collected from the debris-laden area and more than half show significant levels of contamination, it is unclear why the Supplemental Sampling and Analysis Plan (SSAP) states, "... not enough data exist to determine the potential risks to human health and the environment from contaminants in the debris layer" (DQO Step 1) and "If ...contaminants in the debris layer do not pose a risk ... the site will be considered for no further action" (DQO Step 5).

It is our opinion that given the elevated contaminant levels it is prudent to assume that the debris layer poses a risk and some remediation (e.g. excavation) is necessary. To argue otherwise is difficult and probably cannot be supported.

Furthermore, it is our opinion that the objective of this study can be simple and straightforward. Rather than sample the debris extensively to determine if further action is needed (The SSAP proposes 33 soil borings; this is in addition to the 21-plus existing borings for an area estimated to be only 11,284 ft² according to DQO Step 6), we recommend the objective of the SSAP simply be to delineate the extent of the debris so the boundary of remediation can be determined. We believe this minimizes the numbers of borings (See the comment below) and streamlines the process.

2. The SSAP uses VSP which is a grid sampling approach aimed to locate “hot spots” in an area suspected of contamination. However, we believe the debris layer, as a whole, is a hot spot and the objective of the study is not to “locate” it but to determine the lateral and vertical extent of the debris. To achieve it, we recommend judgmental sampling using existing site knowledge.

As stated in DQO Step 7, aerial photographs taken in the 1950s show several areas where the incinerator debris may have been deposited, graded, and covered with soil. We believe these photographs offer an initial understanding of the lateral extent of the debris layer and should be consulted when placing borings. Also considered valuable is a map showing where the 21-plus soil borings reported in Appendix F are located and how deep the sampling had extended. Currently the SSAP provides neither the photographs nor the map.

We consider the historical photographs and the sampling location map critical site information and recommend their use in the initial selection of sampling locations. We believe this judgmental sampling approach helps minimize the numbers of borings.

3. Step 5 of the DQO states that the extent of the debris layer will be considered adequately characterized if the concentrations of chemicals in the outermost and deepest subsurface samples are below the PRGs and/or they are significantly lower than the areas of highest concentrations.

It is our opinion that the term “significant lower” is not defined and therefore not appropriate to be considered as a decision criterion. We recommend the use of residential PRGs as the criterion. For constituents such as arsenic and polyaromatic hydrocarbons (PAHs), the criterion may be the site-specific background as previously determined.

4. Please explain the rationale that the vertical extent of the debris layer extends from the soil surface down to about 4 feet bgs (DQO Step 4) and that hand augering will be performed to a depth of 4 ft bgs (DQO Step 7).

Also, please discuss any contingency plan should the samples collected at 4 ft bgs show contaminants at levels higher the action criterion, i.e. the residential PRGs.

5. Step 7 of the DQO states that all samples will be analyzed for total metals and that in three samples where the debris layer is observed to be most concentrated, dioxin/furan, PCB, and chromium speciation analyses will be performed. It is unclear 1) why “three” is proposed to be the number of samples subject to more complete analysis and 2) why PAHs and petroleum hydrocarbons are not included (petroleum hydrocarbons have been previously

detected in the debris; PAHs has so far not been tested but is a common class of compounds found in burned waste).

It is our opinion that the analytical regimen should be expanded to include not just total metals, chromium specification, dioxin/furan, and PCB but also PAHs and petroleum hydrocarbons.

It is also our opinion that the full analytical work may not need to be performed on every soil sample collected. Since contaminants are likely to be co-located in this case, the analytical work may be streamlined by picking out a single indicator chemical (e.g. lead) to make preliminary determination of the extent of the debris. For the outermost and deepest samples so determined, full regimen of analyses should be performed to make sure that all constituents of interests are within the action criterion and the extent of the debris layer is adequately defined.

Investigation Derived Wastes

6. Given that the debris materials qualify for hazardous waste, please discuss how investigation derived wastes will be handled in this study.

Source of Contamination

7. Appendix F data indicate that the debris contains some levels of petroleum hydrocarbons particularly those in the motor oil and diesel ranges. Although this could simply be a result of incomplete burning, it is possible that petroleum hydrocarbons could be attributed to sources other than the historical incineration operation.

Please discuss the presence of petroleum hydrocarbons in the incinerator debris. Please discuss if Building 459 (an auto repair facility) or other site features (such as the oil water separator mentioned in page 2 of the SSAP) could be the source of the petroleum hydrocarbons.

Additional Data Gap

8. Groundwater reportedly was encountered between 0.2 and 5.6 feet bgs at the site. Please make sure any potential impact of the incinerator debris to the groundwater is fully addressed by the RI and there is no additional groundwater data gap.
9. Site 7 consists of Environmental Baseline Survey (EBS) parcels 112, 113, and 114. Please review the relevant EBS reports to make sure that there are no additional areas of concerns (AOCs) other than former Building 68 and the associated blue, crystalline debris layer. Please refer to DTSC comment letter dated December 16, 2002 for the definition of an AOC.

MINOR COMMENTS

1. Page 2, Section 1.1.2, second paragraph states: “Analytical data for these samples are presented in Table 2.” The reference of Table 2 is incorrect. It should be Appendix F.
2. Page 6, Section 1.1.6 states “No removal actions have been conducted at Site 07”. It then continues in the following paragraph, “...investigation conducted at Site 07 included an interim removal action in 1994”. Please explain the discrepancy.
3. Page 11, Section 1.2.1, first bullet states, “Collecting subsurface soil samples from about 23 locations”. The numbers of sampling locations are consistent with Figure 6 but not with Table 3 (DQO Step 6) and Table 7 where 33 sampling locations are referenced. Please reconcile the discrepancies.
4. Figure 2: The title “CERCAL Site 7 Proposed Soil Sampling Locations” appears to be in error. Please verify.
5. Figure 3: Please clarify the boundary of corrective action area 7 (CAA-7). Figure 3 shows CAA-7 and IR Site 7 completely overlapping each other. This is confusing.
6. Appendix D, Table D-1 does not include the project-required reporting limits (PRRL) and PRGs for PCBs. Please make sure all parameters to be analyzed in this study are included in this table.
7. Appendix F: Pages 1 and 14 through 18 of Appendix F are missing.