

DEPARTMENT OF TOXIC SUBSTANCES CONTROLREGION 2
10 HEINZ AVE., SUITE 200
BERKELEY, CA 94710-2737

March 25, 1996



Engineering Field Activity, West
Attn Mr. Richard Powell, Code 1832
900 Commodore Drive
San Bruno, California 94066-5006

**PHASE III RADIATION INVESTIGATION DRAFT FIELD WORKPLAN
HUNTERS POINT ANNEX**

Dear Mr. Powell:

The Department of Toxic Substances Control (Department) has completed the review of the above radiation workplan. Since the work plan does not contain an implementation schedule, the Department urges the Navy to undertake the radiation investigation as soon as possible. The Navy has to make sure that the Parcels D and E remedial investigation (RI) reports include the results of phase III radiation investigation. The Parcel D and E RI reports are due 6/28/96 and 4/29/97 respectively. Enclosed are comments from the Department of Health Services.

Should you have any questions regarding this letter, please call me at (510) 540-3821.

Sincerely,

A handwritten signature in cursive script that reads "Cyrus Shabahari".

Cyrus Shabahari
Project Manager
Office of Military facilities

Enclosure

cc: US EPA, Region IX
Attn: Anna-Marie Cook [H-9-2]
75 Hawthorne Street
San Francisco, California 94105

Regional water Quality Control Board
Attn: Richard Hiett
2101 Webster Street, Suite 500
Oakland, California 94612



State of California

Department of Health Services

Memorandum

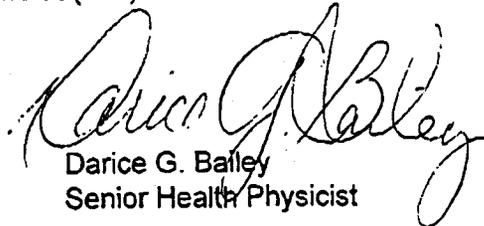
Date : March 15, 1996

To : Cyrus Shabahari
Department of Toxic Substances Control (DTSC), Region 2
Office of Military Facilities
700 Heinz Avenue, Suite 200
Berkeley, California 94710

From : Environmental Management Branch
601 North 7th Street (MS 396)
(916) 445-0498

Subject: Department of Health Services (DHS) review of Phase III Radiation Investigation Draft Field Work Plan for Hunter's Point Annex, San Francisco, California dated February 15, 1996

Attached are DHS' comments on the subject document. This review was performed by Ms. Deirdre Dement in support of the Interagency Agreement between DHS and DTSC. If you need additional information, please contact or me at (916) 324-2209 or Ms. Dement at (916) 324-1378.


Darice G. Bailey
Senior Health Physicist

Attachment

cc: Mr. Donn Diebert
Office of Military Facilities
Department of Toxic Substances Control, Region 1
10151 Croydon Way, Suite 3
Sacramento, CA 95827

Mr. John Adams
Division of Clean Water Programs
State Water Resources Control Board
2014 T Street, Suite 130
Sacramento, CA 94244-2120

Mr. Cyrus Shabahari
March 15, 1996
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cc: Ms. Deirdre Dement
Environmental Management Branch
601 North 7th Street, MS 396
P.O. Box 942732
Sacramento, CA 94234-7320

Department of Health Services
Review of "Phase III Radiation Investigation Draft Field Work Plan,"
Hunters Point Annex, San Francisco, California, February 15, 1996

The following comments are in response to the request from Mr. Cyrus Shabahari of Department of Toxic Substances Control to review the "Phase III Radiation Investigation Draft Field Work Plan," for Hunters Point Annex, located in San Francisco, CA.

General Comments:

1. Page 6, Section 2.1. This workplan does not provide enough detail to explain for documentation purposes, for workers or for plan evaluators how the survey will be performed. On Page 6, Section 2.1, NUREG/CR-5849 is offered as the source of procedures to be used for the field work plan. NUREG/CR-5849 does not contain the "procedures detailed," but only offers guidance to design a plan specific to the site, for the conditions present and for the radionuclides of concern.
2. For most of the surveys recommended, gamma count rates with possible gamma spectroscopic analysis of soil are the only types of radiation detection/analysis recommended. Additional discussion and clarification should be added to explain why the presence of other types of radionuclides (alpha emitters and beta emitters) are not suspected or monitored for in these areas.
3. In order to adequately evaluate this plan the following information is needed:
 - a) Copies of PRC Environmental Management, Inc.'s standard operating procedures used for sampling, laboratory analysis, instrument calibrations and checks, and laboratory QA/QC procedures; (Reviewer requested these documents in October, 1995 for earlier reviews, but has not received a response.)
 - b) MDA's used to determine that no further radiation surveys were needed;
 - c) U.S. EPA. 1994. Petrographic Analysis of Surface Soils in IR-02 (Parcel E), Hunters Point Annex, San Francisco, California.

Specific Comments:

1. Page 7, Section 2.3. Explain how background exposure levels were averaged. How many readings were taken? What was the range of background exposure levels? Ten $\mu\text{R/hr}$ is about two times the average background found in other areas of California.

Page 2. DHS Review of "Phase III Radiation Investigation Draft Field Work Plan," Hunters Point Annex, San Francisco, California.

Specific Comments (continued):

2. Page 7, Section 2.3. Explain how "all background measurements will be used to identify areas of potential concern"?
3. Page 9, Section 2.5. Information regarding the detector sensitivity (MDA and efficiency) for each detector (specify Model and Serial numbers) must be documented with the specific survey data collected to assure that quality data is collected. This information will be crucial to the interpretation of survey results. (See NUREG/CR-5849, Section 8.)
4. Page 15, Section 3.1.1.2, Building 113A. Provide the MDA and/or the aggregate activity from the 1978 RASO survey.
5. Pages 20 & 21, Section 3.1.3.2, Building 313. Describe in more detail "little decontamination efforts"? What radionuclides were found, and what were the required surface decontamination levels? At what levels were the decontaminated areas considered clean? What were the minimum detectable levels for surveys done after decontamination?
6. Pages 22 & 23, Section 3.1.3.5, Building 351B. Is there any documentation describing the move to building 815? Was there any documentation indicating whether the X-ray unit and sealed check sources were moved or left at that time? Has anyone attempted to locate the building, other than by reviewing "old engineering drawings of the building"?
7. Page 23, Section 3.1.3.6, Building 365. Provide the results of the radiation survey performed. What were the MDA values that survey results were less than?
8. Page 29, Section 3.2.1.1, Building 351A. Provide more documentation about the radiation survey that was performed on August 15, 1974. The activity remaining after decontaminations described as 200 cpm removable activity may not be acceptable depending on the radionuclide(s) present and the efficiency of the detector used for the survey.

NRC Reg guide 1.86 was referenced to determine acceptable contamination levels for removable activity. Table 1, page 1.86-5 of the referenced guide shows these levels in units of dpm/100 cm² not in "counts per minute" as specified in workplan. The California Department of Health Services' "Acceptable Surface Contamination Levels" are also reported in units of dpm/100 cm². The highest acceptable removable surface contamination levels are for 1,000 dpm/100 cm² some beta-gamma emitters.

Page 3. DHS Review of "Phase III Radiation Investigation Draft Field Work Plan," Hunters Point Annex, San Francisco, California.

Specific Comments (continued):

If the efficiency of the detector used was 17% (typical) then a 200 cpm reading would actually be interpreted as 1,176 dpm, which may exceed the applicable surface contamination limits. If this is the case or there isn't adequate documentation to prove otherwise, we suggest that these areas be resurveyed. There may also be a need to look for alpha contamination if lack of alpha emitter use is not well documented in the survey report or other documents.

9. Page 30 - 33, Section 3.2.1.2, Building 364 (exterior). It is not clear to the reviewer why further analysis of soil, wipes and water are not being recommended to identify any other alpha, beta or gamma emitting radionuclides in this area.

10. Page 33, Section 3.2.1.2, Building 364 (exterior). Verify that "Exposure rate measurements will be collected on the surface and at 3.0 feet above the surface at various locations..." .