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23 Oct 1997

Mr. James Ricks
Remedial Project Manager
U. S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105-3901

Subj: RESPONSE TO U. S. ENVIRONMENTAL PROTECTION AGENCY (U.S. EPA)
COMMENTS ON THE PRE-DRAFT RADIATION SURVEY REPORT AT THE
NAVAL AIR STATION, ALAMEDA, ALAMEDA, CA, DATED FEBRUARY 1997

Dear Mr. Ricks

Enclosed are responses to U. S. EPA comments received July 14, 1997 on the Pre-draft Radiation Survey Report for NAS Alameda dated February 1997. The draft document incorporating your comments will be submitted soon for your review.

If you have any questions, please contact me at (650) 244-2549, Fax (650) 244-2774.

Sincerely,

ORIGINAL SIGNED BY
GEORGE KIKUGAWA
Remedial Project Manager
By direction of
the Commanding Officer

Encl: (1) Responses to U. S. EPA comments on the Pre-draft Radiation Survey Report

Copies to:

NAS Alameda (Attn: Mr. Steve Edde)
DTSC (Attn: Mr. Tom Lanphar)
RASO (Attn: LCDR Lino Fragoso)
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**RESPONSE TO THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S COMMENTS
ON THE PRE-DRAFT RADIATION SURVEY REPORT
DATED FEBRUARY 1997 FOR NAVAL AIR STATION ALAMEDA**

This document presents the Navy's responses to comments from the U.S. Environmental Protection Agency, Region IX (received by the Navy on 7/14/97) on the Pre-draft Radiation Survey Report for Naval Air Station (NAS) Alameda, dated February 1997.

Specific Comments:

Comment No. 1: **The unknown beta source in the bearing shop needs to be identified. EPA can provide technical assistance via sending a sample of the contaminated oily material to the NAREL in Montgomery, Alabama, for beta analysis.**

Response: The Navy appreciates and will consider the offer of technical assistance.

The affected areas within this building remain within Navy control and are not accessible to the public. As indicated in the report, the isotope(s) present will be identified prior to or during the removal of this material for disposal. In addition, during activities affecting this material, the most restrictive surface contamination criteria for beta emitters will be adhered to.

Comment No. 2: **The USRADS survey work needs to be performed in areas at Sites 1 and 2 where it has not already been done.**

Response: The Navy plans additional surface (walkover) surveys for IR Sites 1 and 2 during the early part of 1998. A work plan including the delineation of areas to be surveyed will be submitted to the regulatory agencies for review and comment.

The Navy is considering several techniques for performing the surface radiation survey. Survey data will be recorded using either (1) a high accuracy satellite based geographic positioning system (GPS) integrated with radiation detectors, or (2) the Navy's USRADS local positioning and data recording system. Both systems will provide highly accurate radiological data and position information.

Comment No. 3: **The benthic sediments just beyond the contaminated storm sewer outfall in the Seaplane Lagoon need to be sampled and analyzed for radium 226. Depending on what radium levels are found there, bay flora and fauna that have potential impact on the local human food chain should also be collected and analyzed for radium 226. EPA recommends further discussion with the Navy to determine whether this concern can be addressed through the ecological assessment efforts.**

Response: For the purposes of ecological risk assessment, sediment samples at the outfalls in the Seaplane Lagoon have been collected and analyzed for radiological contamination. The result of sampling near Outfalls F, FF, and R will be presented in the ecological risk assessment report. Although no increased

Specific Comments (Continued):

concentrations of radium above the normal range of background have been identified in sampling to date, the Navy is continuing to investigate this issue.

Comment No. 4: **The unknown radionuclide(s) responsible for the high gamma levels at FP04 should be determined ASAP. If the Navy RASO still has access to a portable gamma spectrum unit it should be used to properly characterize the gamma source. Dave Martinez, for EG&G has offered to analyze the hot spot for EPA and the Navy as a demonstration of EG&G's new portable gamma spectrum analyzer, DART.**

Response: The source at FP04 has previously been confirmed as characteristic of radium through the use of gamma spectroscopic analysis as described in PRC's report, "Addendum to the Remedial Investigation/Feasibility Study Data Transmittal Memorandum, Site 1 and Site 2 Radiation Survey Report, Naval Air Station Alameda, California," dated February 1997.

The source at FP04 is presently scheduled by the Navy for removal. Upon removal, the source will be characterized as necessary for disposal through the Department of Defense radioactive material disposal program.

Comment No. 5: **4.3.4 Page 4-7**

The Navy is commended for exercising prudent protective management by removing identified radioactive anomalies from Site 1 and the jogging trails to prevent unnecessary exposure to the public. However, extreme care should be taken to log the exact location of the spots where devices were removed. This information may be essential to further investigations necessary for implementing the appropriate remedial actions.

Response: The Navy is in agreement that identification and removal of sources (when practicable) is important. Once a source is removed, however, the location is no longer of interest unless residual contamination is present (as determined by the use of field screening instrumentation such as 2 x 2 NaI detectors). For future radiation surveys at Sites 1 and 2, the Navy will implement a high accuracy satellite based geographic positioning system (GPS) to record locations of all identified anomalies (see response to Comment No. 2).

Comment No. 6: **6.0, Page 6-1, paragraph 2**

Using 15 millirem per year as the radiation dose criterion for radiation contamination removal actions is not appropriate at this time. There is no promulgated EPA standard or approved EPA guidance that uses 15 millirem as an action level.

Specific Comments (Continued):

Response: The Navy is in agreement that the 15 millirem criteria proposed is no longer appropriate. ARARs will be identified in the scoping documents and action memorandum to be prepared for this site as part of the CERCLA process. The Navy is also discussing state ARARs with the California Department of Health Services. The report will be revised accordingly.

Comment No. 7: **6.0, Page 6-1, paragraph 4**

Using a radiation exposure exceeding 500 millirem “from a single inadvertent event” is an unacceptable criterion for deciding whether or not “isolation of structures or systems” is appropriate. Excess exposures to members of the public are limited to 100 millirem per year.

Response: The Navy is in agreement that the 500 millirem criteria proposed is not appropriate and that 100 millirem per year is the applicable guideline value. ARARs will be identified in the scoping documents and action memorandum for this site. The Navy is also discussing state ARARs with the California Department of Health Services. The report will be revised accordingly.