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MOFFETT FIELD
SSIC NO. 5090.3

Cal/EPA

Department of
Toxic Substances
Control

700 Heinz Avenue
Suite 200
Berkeley, CA
94710-2737

Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

May 30, 1997

Commander
Department of the Navy
Engineering Field Activity, West
Naval Facilities Engineering Command
Attn: Mr. Stephen Chao, Project Manager
900 Commodore Drive, Bldg. 210
San Bruno, California 94066-2402

Dear Mr. Chao:

DRAFT FINAL OPERABLE UNIT-1 FIELD INVESTIGATION TECHNICAL MEMORANDUM, MOFFETT FEDERAL AIRFIELD, APRIL 9, 1997

The Department of Toxic Substances Control (DTSC), the San Francisco Regional Water Quality Control Board (RWQCB), the Department of Health Services (DHS) and the California Integrated Waste Management Board (CIWMB) have reviewed the subject document and prepared the following comments for your consideration. If you have any questions regarding these comments, please call me at 510-540-3830 to ensure a coordinated approach for all regulatory comments.

Sincerely,

C. Joseph Chou
Remedial Project Manager
Base Closure Unit
Office of Military Facilities

Enclosures

cc: Mr. Michael Rochette
Regional Water Quality Control Board
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3046
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Mr. James G. McClure, Ph.D.
Moffett Field RAB, THE Committee
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P.O. Box 6107
Novato, California 94948

Department of Health Services

Review of Document, *Operable Unit 1 Field Investigation Draft Final Technical Memorandum*, Moffett Federal Airfield, California, April 9, 1997

(DTSC Resource Planning Form # 335)
May 19, 1997

The following comments are in response to the request from Mr. Joseph Chou of the Department of Toxic Substances Control to review and comment on Section 2.8 of the document, *Operable Unit 1 Field Investigation Draft Final Technical Memorandum*, Moffett Federal Airfield, California, April 9, 1997. (Results of the walkover survey were provided in pages 39 through 44 of this document.)

General Comments:

Below are listed some of the reasons DHS is unable to conclude from the survey presented in this technical memorandum that there is no buried radioactive waste present in the two landfills.

1. The survey performed does not show that no buried radioactive waste was present in the landfill.

2. The results of the survey showing readings that are higher than the "action levels" could be from buried radioactive waste.

3. The results of the survey showing readings that are lower than the "action levels" could be from buried radioactive waste.

4. DHS does not understand the proposed "action" to be taken when an action level is exceeded. The action level was exceeded at several locations, but other than a visual "inspection" of the area no samples were collected to determine if the sand or soil covering the areas having elevated readings were naturally elevated.

Specific Comments:

1. Page 19, Sections 2.8 and 2.8.1. The surveys performed and presented in this technical memorandum appear to have exceeded background and would not rule out the presence of buried radiological waste including radium-226-containing-sources.

2. Pages 19 and 20, Section 2.8.1. DHS was unable to locate calibration data (i.e., efficiencies, geometry of the source to the detector, minimum detectable activities, dates of calibration, etc.) related to any of the instruments reported used in this memorandum. These should be provided with the data.

Specific Comments: (Continued)

3. Page 21, Section 2.8.1.2. The PIC data (including the background equivalent, calibration information, PIC readings with locations identified, calculations, etc.) used for correlation of the count rate data should have been presented in this technical memorandum.

4. Pages 22 - 24, Section 2.8.1.3. The data for each of the transects should be provided in this technical memorandum rather than a summary of the maximum and minimum results of the each site. This would help fill in the missing data from the grid node survey.

5. Page 26, Section 3.0 Conclusions. DHS policy requires the removal of discreet radioactive sources (i.e., Ra-226 gauges and dials) for unrestricted release of property for the State of California. From the survey performed and presented in this memorandum, DHS cannot determine whether radiological waste is contained in either of the landfills. If there is reason to believe that radiological waste may be buried in these landfills then further sampling and analysis of these sites would be necessary to determine whether the site would require licensure by the State of California.

6. Pages 40 and 43, Figures 2-9 and 2-12, refer to Exposure Rates in mR/hr (milliRoentgens per hour). Please confirm that this is an error and that the correct units are μR/hr (microRoentgens per hour).

Cal/EPA

California
Environmental
Protection
Agency

*Integrated
Waste
Management
Board*

*8800 Cal Center Drive
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(916) 255-2200*

Pete Wilson
Governor

James M. Strock
*Secretary for
Environmental
Protection*

April 17, 1997

Mr. Joseph Chou
Remedial Project Manager
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Subject: Moffett Federal Airfield California, Operable Unit 1, Field Investigation Draft Final Technical Memorandum

Dear Mr. Chou:

The California Integrated Waste Management Board (IWMB) Closure & Remediation Branch received the subject report on April 10, 1997. IWMB staff appreciate the opportunity to provide you with input during the closure process of the Moffett Field landfills (Sites 1 and 2). IWMB staff concur with the consolidation approach and feel that this is the most optimal alternative.

Overall the subject report provides very relevant and important field data necessary to begin scoping and defining the consolidation and capping construction activities.

2.1.2 Site 2 Utility Location

Were utilities located using non-intrusive, electromagnetic (EM) survey methods? If so, prior to excavation of site 2, the 36-inch PG & E gas main should be physically located through careful potholing & probing every 100 feet and clearly surveyed with a "no excavation" easement. The pipe's exact depth and location needs to be clearly defined for heavy equipment excavating material in the vicinity of the pipe. The same should be performed for the other utilities, however, the gas main is of primary importance. Also, an engineering analysis should be performed to determine proper shoring or slopes required in the vicinity of the pipe such that excavation activities do not undermine the pipe's integrity. Further, emergency response procedures should be detailed in the Site Specific Health & Safety plan should any release from the pipe occur.

Also, was the 36-inch gas main installed in a trench and backfilled with sand for cathodic protection? If so, what are the dimensions of the trench? This may be important to know during excavation around the line. Steel pipe systems are sometimes installed with active (impressed current) or passive cathodic protection systems (buried sacrificial anodes--two metallic anamolies?). PG&E

should be consulted for any special requirements needing to be met by the remediation contractor for excavation activities near the line.

2.5.1. Monitoring Well and Piezometer Installation and Locations

During drilling activities, were the boreholes screened for the presence of methane gas using an Organic Vapor Analyzer (OVA) or Combustible Gas Indicator (CGI)? If so, what were the combustible gas concentrations in the hole? The boring logs indicate that a hydrogen-sulfide odor was present in the boreholes.

2.6 Lithology

Based on the boring log and cone penetrometer testing data, are there any shallow permeable geologic layers or lenses that will provide a conduit for lateral landfill gas migration, once the cap for Site 1 is established? Will these zones be identified for installation of perimeter gas monitoring probes and screened at a depth consistent with the potential migration path?

2.7.2 Site 1

1) During trenching activities at site 1 was any screening for landfill gas performed using either an OVA or CGI? If so, what were the concentration detected and were any low-oxygen measurements noted? The report states that Trench S1T3 emitted a noticeable petroleum odor.

2) What was the maximum depth of the refuse encountered during trenching activities? This information along with the surrounding lithologic data is important in determining location, depth and screening lengths of gas monitoring probes.

3) Were any trenching logs kept to document information from each trench?

2.7.3 Site 2

1) The trenching activities performed indicate that although landfill debris was found in the trenches, the extent of Site 2 was based on the nature of the debris versus a delineation between waste area and undisturbed native soils. Was the fill area relatively shallow (2-5 ft) in the areas explored? It does not appear that the exploratory trenching at site 2 has clearly defined the limits of the fill area.

2) Was the material excavated in any of the trenches saturated? At any point did any of the exploratory trenches backfill with water? If so, at what depth did this occur and what was the maximum depth before native soil was encountered? This information is important to determine if waste will require dewatering before tranportation to Site 1.

If you have any questions or concerns regarding these comments please call me at (916) 255-3830.

Sincerely,

Glenn K. Young, P.E.
Closure & Remediation South Section
Permitting & Enforcement Division