California Regional Water Quality Control

San Francisco Bay Region

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May 10, 1999

Commanding Officer
Engineering Field Activity, West
Naval Facilities Engineering Command
Attn: Mr. Stephen Chao
900 Commodore Drive
San Bruno, CA 94066-2402

Dear Mr. Chao:

Subject: Draft Remaining UST Sites Investigation Field Work Plan, Moffett Federal Airfield

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has reviewed the subject report and prepared the following comments for your consideration. If you have any questions on these comments, please contact me at (510) 622-2334, e-mail CJC@RB2.swrcb.ca.gov.

Sincerely,

C. Joseph Chou
Remedial Project Manager
San Francisco Bay Regional Water Quality Control Board

Enclosure

cc:
Ms. Lynn Suer, Ph. D.
U. S. Environmental Protection Agency
75 Hawthorne Street
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Ms. Sandy Olliges
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Mr. James G. McClure, Ph. D.
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GENERAL COMMENTS

1. In 1994, the State and the Navy had reached consensus on petroleum cleanup levels in groundwater and soil at MFA. The cleanup levels were set for total petroleum hydrocarbons (TPH) and individual petroleum constituents. The groundwater cleanup goals were set at the MCLs for the constituents of concern; for individual BTEX cleanup levels in soils, the risk-based EPA Preliminary Remediation Goals (PRG) for industrial sites were selected (Cal/EPA 1994). The subject document renamed the 1994 MFA cleanup levels as "screening levels". However, it is more appropriate to compare the 1994 cleanup levels with the risk-based screening levels (RBSL) under the Risk-Based Corrective Action (RBCA) Tier 1 evaluation. Indeed, the MFA cleanup levels were derived from site specific, non-site specific data and regulatory standards. Through the proposed field work, more site specific information will be collected to establish the site-specific target level (SSTL) and points of compliance. If the concentrations of chemicals of concern are above the RBSL or SSTL at the points of compliance or source area, remediation may be warranted.

2. Pursuant to Health and Safety Code 25299.37.1, testing for MTBE is required for all underground storage tank sites before RWQCB or a local agency may issue a closure letter. This requirement applies to ALL underground storage tanks, regardless the installation date of the tank(s). The California State Water Resources Control Board (SWRCB) recommended that EPA method 8020A (or 8021B) be used to detect BTEX and MTBE compounds in LUFT groundwater samples (SWRCB, August 1996). In the same guidance, SWQCB also recommended that at one sample per site which is positive for MTBE by EPA method 8020A (or 8021B) be analyzed by EPA method 8240B (or 8260A) to verify the corrective identification of MTBE.

SPECIFIC COMMENTS

1. Page 3, Last Paragraph; Section 3.2.1 Regulatory Framework

The section should read as "In 1994, California/EPA, including DTSC and RWQCB, and the Navy had reached consensus on petroleum cleanup levels in groundwater and soil at MFA. The cleanup levels were set for total petroleum hydrocarbons (TPH) and individual petroleum constituents. The groundwater cleanup goals were set at the MCLs for the constituents of concern; for individual BTEX cleanup levels in soils, the risk-based EPA Preliminary Remediation Goals (PRG) for industrial sites were selected (Cal/EPA 1994)".

2. Page 6, 1st Bullet; Section 3.2.2 Evaluation Approach

Please note that the California's drinking water action level for MTBE is 13 micrograms per liter, established in March 1999. The California Department of Health Services (DHS) action level addresses concerns about the potential for cancer, based on the carcinogenic effects of MTBE observed in laboratory animals. The current action level replaced the 35-ppb action level, established by DHS in 1991 and based on MTBE's non-carcinogenic effects. DHS is developing a primary MCL for MTBE. Once a primary MCL is adopted, the action level will be no longer used.

3. Page 6, Last Paragraph; Section 3.2.3 Selection of Additional Petroleum Sites

The Navy should provide the existing data of the mentioned nine tank sites to RWQCB for review. Closure should be proposed only after it's demonstrated that there is no remaining pollution.

4. Page 9, 3rd Paragraph; Section 4.0 Investigation Approach

As mentioned in our general comment, the MFA petroleum sites cleanup levels (1994) may be considered as Tier 1 evaluation, since part of the information used weas not site specific and the Summer's vadose zone model was not strictly site specific either.

5. Page 10, 1st Paragraph; Section 4.0 Investigation Approach

The downgradient soil borings and groundwater monitoring wells should be drilled within 10 feet of the tank location, not 50 feet.

6. Page 10; Section 4.1 Mobilization 1

In addition to TPH-g, BTEX and MTBE, for tanks that contained gasoline, tests for tetraethyl-lead and ethylene dibromide may be required for both soil and groundwater analysis.

7. Page 10; Section 4.1 Mobilization 1

Please see General Comment 2

8. Page 11; Section 4.2 Mobilization 2

Please explain the vertical extent of petroleum contamination at each site. How do we know if the A-2 groundwater aquifer is not affected? The concern of vertical transport of MTBE and other oxygenates is particularly true when a downward gradient is created by pumping activity.

9. Page 11; Section 4.2 Mobilization 2

When tank contents are unknown, PAH analysis should be conducted for soil and groundwater samples.

10. Page 11; Section 4.2 Mobilization 2

Please explain why the "80 percent of screening levels" was used to determine whether a groundwater well will be installed or not.