N00296.002070
MOFFETT FIELD
SSIC NO. 5090.3

STATE OF CALIFORNIA — ENVIRONMENTAL PROTECTION AGENCY
PETE WILSON, *Governor*

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
REGION 2
700 HEINZ AVE., SUITE 200
BERKELEY, CA 94710-2737

June 9, 1994

Commander
Western Division
Naval Facilities Engineering Command
Attn: Mr. Stephen Chao, Project Manager
900 Commodore Drive, Bldg. 101
San Bruno, California 94066-2402

Dear Mr. Chao:

DRAFT FINAL OPERABLE UNIT 6 BASELINE HUMAN HEALTH RISK ASSESSMENT

The California Environmental Protection Agency (Cal/EPA) has reviewed the subject document. Comments have been prepared by the Department of Toxic Substances Control (DTSC).

Under the terms of Federal Facility Agreement, all following unresolved issues are in informal dispute resolution. Unless they are resolved within previously agreed deadline, the Department will invoke formal dispute resolution process.

GENERAL COMMENTS

1. The DTSC agrees with the Navy that a purposive sampling is not appropriate in investigating every unknown source. However, in OU6, the contaminants were identified and it is necessary to conduct a hot spot analysis to further delineate the extent of contamination.

2. It is premature to conclude that groundwater is an incomplete exposure pathway in OU6. More on-going quarterly monitoring data will be evaluated in OU1 Feasibility Study to further characterize the groundwater in Runway Landfill (Site 1) area, the results can also provide important information to OU6 risk assessment. Therefore, the Navy should include this information in station-wide risk assessment when data are available.

3. The DTSC believes that the importance of full disclosure of the risks to the public cannot be over-emphasized. Especially when the contaminants are present at significant levels or are site specific. The Navy should invest time, effort, and cost communicating any risk information to the public at its first opportunity.

2070

Printed on Recycled Paper

SPECIFIC COMMENTS

1. Page 2-2, Section 2.2

It is stated that there are no contaminant sources in OU6; this statement does not reflect the different contaminant sources mentioned in the Executive Summary and Section 1.3.

2. Page 2-2, Section 2.3

Please clarify that the quarterly groundwater monitoring results in the vicinity of Runway Landfill will be included in OU1 Feasibility Study.

3. Page 4-2, Section 4.1.1

The DTSC disagrees with eliminating micronutrients such as zinc and copper as COCs. Unlike macronutrients, they have appreciable toxicity. Copper and zinc should be carried through the risk assessment and summed with other contaminants to derive an overall hazard index in conformity with EPA and DTSC guidance.

4. Page 4-4, Section 4.1.3

In Table A-3A.1, 34 of 47 samples have detection limits from 1,000 to 400,000 ug/kg. It is not uncommon that different factors may contribute to the high detection limits of Polycyclic Aromatic Hydrocarbons (PAHs) as was extensively discussed in Navy's responses to regulatory agencies comments. For example, the concentration of benzo(a)pyrene at SSRP-023 was 140 ug/kg. This value is much higher than DTSC suggested screening value of 20 ug/kg. Therefore, the DTSC thinks that benzo(a)pyrene should be carried through the HHRA as COCs.

5. Page 6-8, Section 6.3.2.2

The DTSC recognizes that the frequency of detection is generally used as an optional screening criteria to eliminate COCs. However, if any elevated concentration of contaminants have been identified, the Navy should carry the COCs through the Baseline Human Health Risk Assessment (HHRA).

6. Page 6-18, Section 6.4.4

In the Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities (DTSC, 1992), it is addressed that the soil ingestion rate for an industrial worker is 50 to 100 mg/day.

EPA and DTSC recommend 480 mg/day for construction workers and it should be applied to OU6.

7. Page 6-18, Section 6.4.4

As previously mentioned in our Specific Comment 10 on Draft OU6 RI, the default value of 350 days per year should be used for yearly exposure. Based on the site visit record, even during the "wet season", most area of OU6 is still accessible for recreational uses.

8. Page 6-20, Section 6.4.5

According to Preliminary Endangerment Assessment Guidance (DTSC, 1994) the dermal absorption factor of arsenic is 3 percent and this value should be used in OU6 HHRA. DTSC uses this value for all risk assessments be they baseline or screening.

9. Page 6-28, Section 6.5.2.8

The third sentence of the first paragraph should be revised as " Although classified by EPA as a probable carcinogen (Class B2), the systemic manifestation of non-carcinogenic pathological effects indicates that DDT is not highly toxic as indicated by the dose-response relationship...".

10. Page 6-37, Section 6.5.2.18

It is incorrectly to state that the Cal/EPA inhalation cancer slope factor(CSF) only applies to nickel dust. The Cal/EPA CSFs applies to all forms of nickel.

11. Page 6-38, section 6.5.2.20

The reason that there is no direct evidence of PAHs carcinogenicity is simply because that studies of exposure to purified PAHs only have not been carried out in humans. As it is stated in the text that epidemiological studies have shown many evidences of increased human cancers from exposure to PAH containing mixtures.

12. Page 6-43, Section 6.6

The DTSC disagrees that gastrointestinal absorption factors should be used in the HHRA because gastrointestinal absorption is accounted for in determination of the RfD or CSF.

If you have any questions, please call me at (510) 540-3830.

Sincerely,

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

cc: Mr. Ron Gervason
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

Mr. Michael D. Gill
U.S. Environmental Protection Agency
Region IX, Mail Stop H-9-2
75 Hawthorne Street
San Francisco, California 94105

Dr. Michael Wade
Dept. of Toxic Substances Control
Office of Scientific Affairs
8950 Cal Center Dr.
Building 3, Suite 101
Sacramento, California 95826