DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
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10 OCT 2000

Mr. Lewis Mitani
U. S. Environmental Protection
Agency, Region IX
75 Hawthorne Street, Mail Code H-9-4
San Francisco, CA 94107

Dear Mr. Mitani:

Subj: GROUND WATER CLASSIFICATION AT THE U. S. NAVY RED HILL OILY WASTE DISPOSAL FACILITY, OAHU, HAWAII

This letter is in response to your review comments dated May 31, 2000 on the draft final Remedial Investigation Report for the Former Red Hill Oily Waste Disposal Facility (OWDF), located at Halawa Valley. The Navy accepts the conclusions and recommendations documented in the revised Draft Final Report for the Red Hill OWDF Phase II Remedial Investigation (RI). Two prior versions of this report have been reviewed by Region IX of the U. S. Environmental Protection Agency (EPA Region IX) and revised in response to comments. The latest revision of the report was submitted to EPA Region IX on September 5, 2000.

The RI report presents the findings of the remedial investigation and site conditions at the OWDF following removal actions conducted in 1995. The report also addresses comments received from EPA Region IX and State of Hawaii Department of Health regarding the draft report. In these comments, EPA Region IX indicated that perched groundwater found at the site should be classified as a "potential source of drinking water" in accordance with federal guidelines. Such classification would require that national and state drinking water standards (non-zero MCLGs/MCLs) be met. This letter reemphasizes that the drinking water classification and standards are not applicable to perched groundwater at the site.

Site-specific conditions and alternative regulations and guidance should be considered to evaluate future potential use of the perched ground water source and the §300.400(g)(2) criteria. These include: 1) Environmental Protection Agency's definition of an "underground source of drinking water," "public water system," and "exempted aquifer" promulgated pursuant to the SDWA under the federal underground injection control (UIC) program (see 40 CFR 146.3, 141.2 and 146.4, respectively); and 2) state groundwater protection regulations and standards (See attached).

Evaluation of these regulations and criteria with site-specific conditions at Red Hill indicate that perched groundwater at the site will not be developed for public or private drinking water purposes in the future. The attachment summarizes the applicable state regulations and site-specific conditions.

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We strongly urge you to reconsider the classification of perched ground water at the Red Hill OWDF and the applicability of drinking water standards based on the site conditions and regulations cited. We also look forward to working with you to formulate a reasonable and site-specific strategy for determining ground water classification at other Navy CERCLA sites.

Should you have any questions, please contact Mr. Wesley Ching of our Environmental Restoration Division at (808) 474-4513.

Sincerely,

Melvin T. Waki

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Federal Underground Injection Control (UIC) Program

Unlike the federal groundwater classification guidelines which are not ARARs, the UIC program definition of an "underground source of drinking water," may be considered an ARAR at the site. The definition is "relevant and appropriate" in that it is "criteria promulgated under federal environmental laws that address problems or situations sufficiently similar to those encountered at the CERCLA site" (see 40 CFR 300.5). It is emphasized that the goal of the UIC program to protect underground sources of drinking water from contamination are consistent with the goal of CERCLA. Therefore, it is reasonable to conclude that the UIC groundwater classification criteria are adequately protective of underground sources of drinking water at CERCLA sites. Since MCLGs/MCLs are promulgated under the SDWA, it is also reasonable to use the definition of an "underground source of drinking water" promulgated pursuant to this Act. Site observations and well monitoring data collected at the OWDF indicate that the perched ground water is not a potential "underground source of drinking water" as defined in the UIC program regulations.

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Recent EPA Guidance

Recent USEPA guidance (that supercedes the NCP preamble) states that "where available, potential future ground-water uses should be determined from a Core Certified State Groundwater Protection Program (CSGWPP) that has been endorsed by USEPA and has provisions for site-specific use determinations" (see *Rules of Thumb* (EPA 540-R-97-013) and *The Role of CSGWPP in EPA Remediation Program* (OSWER Dir. 9283.1-09). Although the State of Hawaii has not completed the development of its CSGWPP, the state has groundwater protection program regulations and criteria that can be used to determine where future potable ground water development is restricted based on site-specific conditions. Evaluation of these regulations and criteria with site-specific conditions at Red Hill indicate that perched groundwater at the site will not be developed for public or private drinking water purposes in the future.

Unlike the federal groundwater classification guidelines which are not ARARs, the UIC program definition of an "underground source of drinking water," may be considered an ARAR at the site. The definition is "relevant and appropriate" in that it is "criteria promulgated under federal environmental laws that address problems or situations sufficiently similar to those encountered at the CERCLA site" (see 40 CFR 300.5). It is emphasized that the goal of the UIC program to protect underground sources of drinking water from contamination are consistent with the goal of CERCLA. Therefore, it is reasonable to conclude that the UIC groundwater classification criteria are adequately protective of underground sources of drinking water at CERCLA sites. Since MCLGs/MCLs are promulgated under the SDWA, it is also reasonable to use the definition of an "underground source of drinking water" promulgated pursuant to this Act. Site observations and well monitoring data collected at the OWDF indicate that the perched ground water is not a potential "underground source of drinking water" as defined in the UIC program regulations.

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Summary of Applicable State Regulations

- Well permitting requirements adopted pursuant to the Hawaii Administrative Rules (HAR) and Hawaii State Water Code require that public and private wells "be located so that they are minimally exposed to known sources of pollutants" or to "flood, drainage, or runoff areas." In addition, "wells to be constructed for potable use should be located a minimum horizontal distance of 50 feet from any sewer line, 1,000 feet of any subsurface sewage leaching field, and a 1/4 mile of any injection well" (see DLNR *Hawaii Well Construction and Pump Installation Standards*, Section 2.3(a) and (b); HAR 11-20-29). The perched groundwater is sited within a half-mile radius and hydraulically downgradient of an animal quarantine center, sewage treatment plant, industrial park, cement quarry, security prison, highway construction staging facility, freeways, underground sewage lines, fuel lines, fuel/oily waste storage, stream, and habitat for feral animals. The majority of these facilities are identified as presenting a "high" or "very high" potential for contamination under the Hawaii Source Water Assessment Program. The site is also located within 1,000 feet of the former sewage sludge bed and 1/4 mile of the state's UIC line delineating where injection wells are permitted. Therefore, it is highly unlikely that the state would permit a potable well to be constructed at the OWDF.

- The OWDF is located on federal Navy land used for limited industrial purposes. The Navy maintains and controls activities on the property. The Navy has no plans to lease or transfer this land to the state or a private party. There are also no plans to change the use of the property or to develop water resources on the property. Access to the site is restricted by fences and other security measures that limit the likelihood of illegal well development.

- Perched groundwater development on the federal property is unlikely considering that other existing and adequate sources of potable water supply (i.e., Red Hill and City and County Board of Water Supply shafts) are located near the facility. Additionally, the perched groundwater has not been identified by the state as a potential drinking water source (see *Aquifer Identification and Classification for Oahu: Groundwater Protection Strategy for Hawaii*, 1990).

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