



UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

September 17, 2014

Mr. Aaron Poentis
Program Director
Environmental Department
Navy Region Hawaii
850 Ticonderoga St., Suite 110
Pearl Harbor, Hawaii 96860

**Re: Red Hill Bulk Fuel Storage Facility - Work Plan/Sampling and Analysis Plan: Tank 5
Area Characterization ("Tank 5 Workplan")
DOH Facility ID No. 9-102271 / DOH Release ID No. 140010**

Dear Mr. Poentis:

The Hawaii Department of Health ("DOH") and the U.S. Environmental Protection Agency ("EPA") have reviewed the draft Tank 5 Workplan dated July 2014. In the Tank 5 Workplan, the Navy proposes to install wells and vapor monitoring points underneath and near Tank 5 for the purposes of testing for the presence of light non-aqueous phase liquid ("LNAPL") in the basalt rock below the tank, evaluating the extent of fuel in vapor within the unsaturated zone of the basalt below the Tank, and utilizing the data collected to model the downward migration of LNAPL towards the aquifer.

The DOH and EPA are concerned that the limited scope of work proposed in the Tank 5 Workplan may not satisfy the workplan's stated objectives or the Navy's regulatory requirements under Hawaii Administrative Rules (HAR) §11-281-76. Nevertheless, the Navy may perform the work outlined in the Tank 5 Workplan in order to gain insights to the extent of contamination below Tank 5 after addressing the following comments:

- 1) The Navy shall modify their drilling procedures in a manner to eliminate the spread of contamination and prevent the creation of pathways that could cause accelerated contaminant migration. The workplan shall include a description of the drilling procedures and contingency plans that will be implemented during drilling activities in the event that LNAPL is encountered prior to borehole completion. If LNAPL is

encountered during drilling the Navy shall consult with the DOH and EPA before recommencing drilling.

- 2) The Navy shall modify the plan to include geophysical logging of boreholes to the maximum extent practicable in order to aid in the development/refinement of the conceptual flow and transport model of releases from the facility. The Navy shall provide a written geophysical logging plan to the DOH and EPA for approval.
- 3) The modeling approach outlined in the Tank 5 Workplan relies on the use of a soil-based model which is not applicable for the Red Hill hydrogeologic setting. The Navy shall refine the modeling plans and provide thorough justification regarding the applicability of the proposed site specific modeling methods for use in a basalt geologic environment.
- 4) The Navy's sampling and analysis plan for this work shall include all historic components of fuel stored at the facility. This includes the lead scavengers that may have been present in the leaded fuel.
- 5) The Navy shall propose an implementation schedule in coordination with the DOH and EPA in order to facilitate appropriate regulatory agency oversight, as necessary.

Although a revised Tank 5 Workplan may provide some information on the downward migration of contaminants starting from the bottom of Tank 5, it addresses only part of the Navy's obligations. HAR §11-281-63(b)(2) requires owners and operators of confirmed releases to repair or replace the UST or tank system, begin release response actions and to conduct a site assessment that measures for the presence of a release where contamination is most likely to be present.

In weekly reports the Navy has stated that 17 potential release points have been identified on the interior of Tank 5. The workplan submitted does not address the presence of contamination that most likely exists near the 17 potential release points identified during the re-inspection of Tank 5.

Within 30 days from the date of this letter, the Navy shall revise the Tank 5 workplan in order to address the numbered points above. The Navy shall not begin implementation of this work until they receive written approval from the DOH.

Within 60 days from the date of this letter, the Navy shall submit a workplan for additional work that describes how the Navy will investigate the nature and extent of the releases from the locations where release points were identified in order to comply with Hawaii's regulations. Additionally, the workplan shall include all data and procedures used to identify these tank deficiencies, including, but not limited to photographs, vacuum box tests, and non-destructive testing data.

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If you have any questions regarding this letter, please contact Mr. Steven Chang, Chief of the Solid and Hazardous Waste Branch at (808) 586-4226 or steven.chang@doh.hawaii.gov, or Mr. Steven Linder, Manager of US EPA's Underground Storage Tank Program at (415) 972-3369 or linder.steven@epa.gov.

Sincerely,



STEVEN LINDER, MANAGER
Underground Storage Tank Program
US EPA, Region 9



STEVEN Y.K. CHANG, P.E., CHIEF
Solid and Hazardous Waste Branch
Department of Health

- c: Mr. Gary Gill, Deputy Director, Department of Health
Mr. Stuart Yamada, DOH-Environmental Management Division
Ms. Joanna Seto, DOH-Safe Drinking Water Branch
Mr. Roger Brewer, DOH-Hazard Evaluation and Emergency Response Office
Mr. Keith Kawaoka, DOH-Hazard Evaluation and Emergency Response Office