

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378In reply, please refer to
File:

December 8, 2010

U1217RT

Ms. Raelynn Della Sala
Navy Region Hawaii
850 Ticonderoga Street, Suite 110
Pearl Harbor, Hawaii 96860-5101

Dear Ms. Della Sala:

SUBJECT: Red Hill Tank Complex
Facility ID 9-102271 / Release IDs 990051, 010011, 020028

The Department of Health (DOH) has reviewed the following reports:

1. *Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility*, dated May 2008 and prepared by TEC, Inc.
2. *Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility*, dated February 2009 and prepared by TEC, Inc.
3. *Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility*, dated April 2009 and prepared by TEC, Inc.
4. *Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility*, dated July 2009 and prepared by TEC, Inc.
5. *Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility*, dated September 2009 and prepared by TEC, Inc.
6. *Quarterly Groundwater Monitoring Report – Outside (Non-Tunnel) Wells*, dated September 2009 and prepared by TEC, Inc.
7. *API 653 Inspection and Repair Records for Red Hill Tank 15*, dated December 7, 2009 and prepared by Dunkin & Bush, Inc.
8. *Quarterly Groundwater Monitoring Report – Outside (Non-Tunnel) Wells*, dated December 2009 and prepared by TEC, Inc.

Ms. Raelynn Della Sala
December 8, 2010
Page 3

Navy's Drinking Water Pump Station nearby, the most stringent drinking water action levels are employed, the majority in the parts per billion range.

TPH-DRO, naphthalene, and 1-methylnaphthalene continue to be found in monitoring wells RHMW01, RHMW02, and RHMW02D. The July 2010 monitoring event revealed TPH-DRO from 228 to 3,110 parts per billion (ppb) vs. the HEER EAL of 210 ppb and SSRBL of 4,500 ppb. 1-methylnaphthalene was found at 7.05 to 7.43 ppb vs. the HEER EAL of 4.7 ppb. Naphthalene was found at 59 to 61 ppb by Method 8270C and 102 to 107 ppb by Method 8260B vs. the HEER EAL of 17 ppb. Water collected at the Navy's Drinking Water Pump Station was non-detectable for all contaminants above minimum detection limits.


In the wells outside the complex, naphthalene was detected for the first time in monitoring well HDMW2253-03 North of the Red Hill Complex in July 2010 at a concentration of 0.0596 ppb vs. the HEER EAL of 17 ppb. TPH-DRO was detected in this well in January 2010 at 322 ppb vs. the HEER EAL of 210 ppb and SSRBL of 4,500 ppb. TPH-DRO was found at 1,490 ppb vs. the HEER EAL of 210 ppb and SSRBL of 4,500 ppb in monitoring well OWDFMW2 that lies west of the Navy Drinking Water Pump Station.

The DOH concurs that monthly free product checks and soil vapor monitoring should continue as well as quarterly groundwater monitoring of the wells within the complex. It was stated that funding for sampling the wells outside the complex had been completed. The DOH concurs that consideration should be given for periodic sampling of these wells.

Regarding the Type 1 Letter Report, the DOH does not object to additional monitoring wells in the North-West direction. The DOH also concurs with utilizing the MADEP EPH VPH analyses with the current 8260B and 8270C analyses to more accurately determine if the TPH-DRO found is fuel based or from non-petroleum sources.

If you have any questions regarding this letter, please contact Mr. Richard Takaba of our Underground Storage Tank Section at (808) 586-4226.

Sincerely,


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

c: Roger Brewer, DOH-HEER Office
Darren Uchima, Navy Region Hawaii
Glenn Yoshinaga, NAVFAC Pacific, Pearl Harbor
Jeff Hart, TEC, Inc., Honolulu



DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGION HAWAII
850 TICONDEROGA ST STE 110
PEARL HARBOR, HAWAII 96860-5101

OCT 25 2010 *MA*

OK
BT

5090
Ser N45/1368
19 Oct 10

CERTIFIED MAIL NO. 7007 3020 0002 3047 7235

Mr. Richard Takaba
Hawaii State Department of Health
Environmental Management Division
Solid and Hazardous Waste Branch
Underground Storage Tank Section
919 Ala Moana Boulevard, Room 212
Honolulu, HI 96814

Dear Mr. Takaba:

SUBJECT: TYPE 2 LETTER REPORT - PROPOSAL FOR GROUNDWATER
TREATMENT, RED HILL BULK FUEL STORAGE FACILITY
FACILITY ID NO. 9-102271
RELEASE ID NO. 99051, 010011 AND 020028

The Navy is submitting this Type 2 Letter Report for the Red Hill Bulk Fuel Storage Facility, as required by the Red Hill Bulk Fuel Storage Facility Groundwater Protection Plan (TEC, revised 2009).

A study was conducted by a Navy contractor in 2010 to evaluate and identify feasible treatment technologies and treatment systems for removing potential contaminants of concern from the groundwater beneath the Red Hill Bulk Fuel Storage Facility, and to ensure that the treated water from the Red Hill Water Plant continues to meet drinking water standards. The study also established parameters for an event that would initiate programming and construction of the recommended water treatment facilities.

The following information is from the "Final Report to Evaluate Treatment Technologies for the Red Hill Drinking Water Well" of 13 August 2010, prepared by HDR|Hawaii Pacific Engineers.

9. *Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility*, dated December 2009 and prepared by TEC, Inc.
10. *Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility*, dated April 2010 and prepared by TEC, Inc.
11. *Quarterly Groundwater Monitoring Report – Outside (Non-Tunnel) Wells*, dated April 2010 and prepared by TEC, Inc.
12. *Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility*, dated May 2010 and prepared by TEC, Inc.
13. *Quarterly Groundwater Monitoring Report – Outside (Non-Tunnel) Wells*, dated May 2010 and prepared by TEC, Inc.
14. *Type 1 Letter Report – Re-evaluation of the Tier 3 Risk Assessment/Groundwater Model & Proposed Course of Action Red Hill Bulk Fuels Storage Facility*, dated May 4, 2010 and prepared Tec, Inc.
15. *Quarterly Groundwater Monitoring Report Red Hill Fuel Storage Facility*, dated August 2010 and prepared by TEC, Inc.
16. *Quarterly Groundwater Monitoring Report – Outside (Non-Tunnel) Wells*, dated August 2010 and prepared by TEC, Inc.
17. *Work Plan, Long-Term Monitoring*, dated September 2010 and prepared by Naval Facilities Engineering Command.

Please note the reports have been placed with the public record.

Since 2009, groundwater samples from monitoring wells within and outside the Red Hill Tank Complex have revealed low levels of Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH-GRO), Total Petroleum Hydrocarbons – Diesel Range Organics (TPH-DRO), naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. The DOH Hazard Evaluation and Emergency Response (HEER) Office Environmental Action Levels (EALs) are being used at this site, as well as Site Specific Risk Based Levels (SSRBLs) for TPH-DRO.

In addition to TPH-GRO and TPH-DRO, the groundwater samples are analyzed for 18 poly-aromatic hydrocarbon (PAH) compounds, and approximately 40 volatile organic compounds (VOCs), and dissolved Lead. The five specific contaminants mentioned in the previous paragraph were the only compounds detected in these wells during 2009-2010. All others were non-detectable at minimum detection limits below HEER action levels. Due to the nature of the aquifer beneath the site as a current source of drinking water, as well as the