



**REGION 9**

SAN FRANCISCO, CA 94105

May 15, 2026

**VIA ELECTRONIC MAIL ONLY**

Rear Admiral Lester Ortiz  
Navy Closure Task Force - Red Hill  
850 Ticonderoga Street, Suite 110  
Joint Base Pearl Harbor-Hickam, Hawai'i 96860

Subject: U.S. Environmental Protection Agency Conditional Approval of *Groundwater Sampling Frequency Reduction Request, Red Hill Bulk Fuel Storage Facility, Joint Base Pearl-Harbor, Hickam, Hawaii*, March 4, 2026

Dear Rear Admiral Ortiz:

Thank you for submitting the March 4, 2026 *Groundwater Sampling Frequency Reduction Request, Red Hill Bulk Fuel Storage Facility, Joint Base Pearl Harbor-Hickam Oahu HI*. The groundwater monitoring is pursuant to the 2023 Administrative Consent Order (ACO).

The current consolidated groundwater sampling plan (CGSP) combines the weekly Notice of Intent (NOI), quarterly long-term groundwater monitoring, twice a month delineation and sentinel wells requirements, and quarterly release response reports into one comprehensive groundwater monitoring and sampling program. The CGSP specifies monthly groundwater sampling frequency during continuous Red Hill Shaft pumping (4.3 million gallons per day [mgd]) and twice monthly sampling during reduced flow conditions (e.g., 1.8 mgd).

The Navy requests to reduce all groundwater sampling under the CGSP to quarterly frequency, to align with the original groundwater sampling which began in 2005 and continued after the implementation of NOI sampling following the May 2021 release event. Additionally, the Navy requests to cease reporting multiple lines of evidence (LOE) trigger notifications. The proposed revisions to the CGSP will not alter the groundwater monitoring well locations or the analyte list.

U.S. Environmental Protection Agency (EPA) has completed a review of the Groundwater Sampling Frequency Request, and our comments are presented in the Attachment 1.

Navy's request to cease LOE trigger notifications is approved. EPA conditionally approves the Navy's request to reduce groundwater monitoring frequency after **July 15, 2026**, contingent upon the Navy's agreement to the conditions outlined in Attachment 1.

If you have any questions regarding this letter, please contact me at russi.tonya@epa.gov or (415) 972-3706.

Sincerely,

/s/

Tonya Russi  
Red Hill Project Coordinator  
U.S. Environmental Protection Agency, Region 9

Attachment: 1. EPA Comments on Groundwater Sampling Frequency Reduction Request

cc:

RADM Brad Collins, NCTF-RH  
CAPT Gregory deWindt, NCTF-RH  
CDR Benjamin Dunn, NCTF-RH  
LCRD Matthew Ward, NCTF-RH  
LCRD Brian Crone, NCTF-RH  
Steven Chow, NCTF-RH  
Joshua Stout, NCTF-RH  
Kelly Ann Lee, Hawai'i Department of Health  
Claire Trombadore, EPA

## Attachment 1 – EPA Comments on Groundwater Sampling Frequency Reduction Request

### Supporting Comments:

1. EPA appreciates the past forensic analyses performed in response to trigger level exceedances. With the defueling of the Red Hill storage tanks complete, trigger levels and associated forensic analyses intended to identify catastrophic releases from the tank system are no longer needed. While forensic analyses performed were sufficient to rule out new releases of fresh fuel, they are not comprehensive enough to exclude detection from being petroleum related or related to Red Hill.

Supporting the reduction in groundwater sampling frequency, Navy asserts total petroleum hydrocarbon (TPH) detections in the majority of wells are not fuel-related, or petroleum in origin. Navy states: *“The analysis indicates that RHMW01R and RHMW02 have consistent detections of DRO and ORO related to fuel..... Detections of DRO and ORO at all other sampling locations are sporadic in nature, and associated chromatograms do not resemble fuel.”* And, *“...that these TPH detections are primarily composed of polar, non-petroleum components (Attachment 5). This provides additional evidence that inconsistent TPH detections at wells located away from the tank farm are not petroleum-related and not indicative of an expanding plume and are more likely related to naturally occurring hydrocarbons or other sources.”* EPA does not concur that the available data supports these conclusions.

Numerous fuel types, including Navy Special Fuel Oil, were stored at Red Hill for more than 80 years of operation. The varied composition of the fuels coupled with phase-partitioning and weathering of product in the environment after a release can result in groundwater contamination having little resemblance to the original product released. The need to determine the nature and origin of sporadic TPH detections in monitoring wells (e.g. RHMW-04, RHMW-18, NMW-24, -25, -26 -30, -32), and within the Red Hill water supply tunnel (i.e. detections in granular activated carbon influent) remains a high priority. This information is key for understanding the geographic area of the Moanalua Aquifer impacted by petroleum contamination in general, and more specifically by releases from Red Hill. The data will advance our understanding of the persistence and migration potential of Red Hill-related petroleum contamination.

2. The island of Oahu experienced record rainfall in March of 2026. Increased precipitation can remobilize petroleum trapped in the vadose zone. Continuing the current sampling frequency will be important to observe potential impacts to groundwater from the increased rainfall and further aid our understanding of the connection between the vadose zone and groundwater.

### Conditions of Approval for Reduction in Groundwater Sampling

1. By **July 15, 2026**. Develop and submit a plan to further evaluate the nature and origin of the sporadic detections of TPH in wells and post-pump/pre-treatment samples collected at Red Hill Shaft. Please also schedule a special purpose meeting with regulatory agencies to discuss the proposed approach and timeline. At a minimum the plan should include:

- i. Advanced forensic methodology (e.g. PIANO, alkyl-PAH, ancient carbon forensic analyses, or functional equivalents).
  - ii. Lines of evidence to distinguish petroleum from biogenic sources of TPH detections such as determining the range of natural background levels of biogenic TPH.
  - iii. Sampling plan spanning space and time to achieve study objectives (i.e. conduct high-frequency sampling, if needed, to capture and analyze offsite detections when they occur).
2. As the Navy expands the groundwater monitoring network, they will add the new well locations to the CGSP.
3. In the Quarterly Release Response Reports, please include an evaluation of the aerial extent petroleum impacts to groundwater, including visual representations of the plume.
4. Navy should consult with EPA and formally document all changes prior to modifying the CGSP.