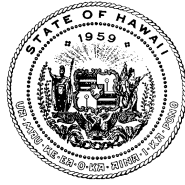


JOSH GREEN, M.D.
GOVERNOR OF HAWAII
KE KIA'AINA O KA MOKU'AINA 'O HAWAII



KENNETH S. FINK, MD, MGA, MPH
DIRECTOR OF HEALTH
KA LUNA HO'OKELE

STATE OF HAWAII
DEPARTMENT OF HEALTH
KA 'OIHANA OLAKINO
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

December 19, 2023

Rear Admiral Stephen Barnett
Commander, Navy Region Hawai'i
850 Ticonderoga Street, Suite 110
Joint Base Pearl Harbor Hickam, Hawai'i 96860
[via email only: stephen.d.barnett.mil@us.navy.mil]

Dear Rear Admiral Barnett:

**SUBJECT: DOH Expectations for Site Assessment Required for
Permanent Closure of the Red Hill Bulk Fuel Storage Facility**

Under the Hawai'i Department of Health's (DOH's) May 6, 2022 Emergency Order, the U.S. Department of the Navy (Navy) was required to submit a "site assessment in connection with the [Red Hill] Facility's permanent closure" (hereinafter referred to as the "Site Assessment Plan") by November 1, 2022. In our November 15, 2023, response to the Navy's Tank Cleaning Plan, we expressed concern that the Navy now estimates the Site Assessment Plan will not be submitted until June 2024 by the Navy Closure Task Force – Red Hill (NCTF-RH). In addition, we are concerned that a scoping meeting with regulators to discuss the Site Assessment Plan will not be scheduled until February 2024, even though, according to the Navy's February 2023 closure schedule, the prerequisite evaluation of existing data should have been completed by November 2023.

The purpose of the Site Assessment Plan is to ensure sufficient data is collected so that the Navy is able to demonstrate the underground storage tank (UST) system's permanent closure is complete and protective of human health and the environment. An updated conceptual site model (CSM) that imparts a clear understanding of the relationship between releases that have occurred and all potential receptors is a critical part of this demonstration. An updated CSM will provide the basis for evaluations of potential risks posed by the identified contamination and subsequent remedial options. Without the collection of sufficient data and appropriate analysis, the updated CSM cannot be relied upon.

Overall, the DOH is troubled by the Navy's lack of expediency surrounding closure of the Red Hill UST system. Therefore, to aid the Navy in assessing the UST system for potential releases, as well as characterizing the site in a manner that demonstrates "technical adequacy" as required under Hawai'i Administrative Rules (HAR) §11-280.1-63(b) and 72(a), the DOH is providing a list of items that will need to be addressed in the Site Assessment Plan prior to its approval. We expect the Site Assessment Plan to at least contain:

1. A description of the entire UST system constructed and operated from its initiation through closure, including portions that may have been removed or abandoned; the status of any abandoned portions; a summary of all closure and site assessment reports; any information on releases from the removed, abandoned, and current portions of the Red Hill Bulk Fuel Storage Facility (Facility) and the rest of the UST system; and the types and locations of fuels that the system stored over its entire history. For example, we understand there is an abandoned empty fuel line that originated from Adit 6 to Pearl City Peninsula onwards to Barbers Point and an old pipeline to the former sloop tank S-355 that should be considered in accordance with HAR §11-280.1-73.

As discussed in the May 16, 2023 Site Assessment Plan scoping meeting, the UST system for the purposes of site assessment includes at minimum:

- a. The tank gallery consisting of the twenty underground fuel tanks and all associated piping.
 - b. The fuel oil recovery system, including sumps, and piping.
 - c. The four surge tanks, underground pump house, upper tank farm, truck loading rack, and associated piping.
 - d. The pipeline system from the underground pump house to the piers.
 - e. The pipeline from the underground pump house to Hickam Field Product Distribution.
 - f. The airport hydrant systems, product recovery tanks and associated piping, and truck loading rack at the Hickam Field Product Distribution.
2. A comprehensive outline as to how all past and future site assessment work will be integrated to complete an overall site assessment of the entire UST system. The purpose of site assessment is to identify and investigate all potential releases from the whole UST system throughout its history (not limited to the releases in 2014 and 2021).

Therefore, the Site Assessment Plan must incorporate:

- a. All previously conducted site assessments, environmental data obtained from other investigations, long-term groundwater monitoring, and release response activities, regardless of administrative or regulatory program distinctions. For example, we understand the Environmental Restoration Navy (ERN) Program and Red Hill Officer-In-Charge (OIC) group do not regularly share data with each other. This cannot be the case moving forward.
- b. Figure(s) and map(s) illustrating the locations of all previous site assessments throughout the entire UST system, potential sources of contamination (e.g., Former Sloop Tank S-355, the Tank 5 2014 release, Hotel Pier release, and former Red Hill Diesel Power Plant UST release), and areas of contaminant impact in both the vadose zone and saturated zone. Figure(s) and map(s) should include:
 - i. Data that may have been collected under other programs, such as the ERN Program;
 - ii. Oily Waste Disposal Facility (OWDF) records of releases from inception to closure; and
 - iii. OWDF operational procedures on Red Hill waste oil disposal methods.
- c. Figure(s) and descriptions of data gaps identified based on all available data and locations of current and planned site assessment work areas.

- d. A work plan of current and planned site assessment activities. Separate work plans for different assessments can be prepared; however, the Site Assessment Plan must clearly identify all of these and explain how they tie into each other.
3. A detailed schedule of all planned site assessment work associated with closure of the entire UST system.
 - a. If separate work plans will be prepared for different portions of the UST system, include dates when each work plan will be submitted to the regulators and estimated start date(s) for the corresponding assessment work.
 - b. While dates should be provided for initial site assessment activities, the schedule shall be updated at least monthly as more detail becomes available. Each updated schedule shall be submitted to the DOH for review and approval.
4. A comprehensive list of all identified contaminants of potential concern (COPCs) for the entire UST system.
 - a. This should include all COPCs associated with the 2014, May 2021, and November 2021 releases (e.g., fuel additives, cleaning products, etc.), as well as any other COPCs associated with products that were previously stored in the UST system.
 - b. Appropriate cleanup levels for COPCs.
5. An explanation of how data originally collected for other purposes throughout the Facility will be used as part of the site assessment to better inform the subsequently updated conceptual site model. This includes, but is not limited to, data from the OWDF characterization and remediation, facility-wide per- and polyfluoroalkyl substances groundwater investigation, and release response activities associated with the 2022 aqueous film forming foam release.
6. Detailed information about sampling methodology, unless this information will be provided in separate work plans. This information includes, but is not limited to:
 - a. Sample collection methodology. Samples should be collected in accordance with the DOH Hazard Evaluation & Emergency Response (HEER) Office *Technical Guidance Manual* available at <https://health.hawaii.gov/heer/tgm/>.
 - b. Laboratory analytical methods.
 - c. Figures and maps illustrating detailed sampling locations and decision units.
7. A description of how the Navy will present the data gathered and its evaluation to the DOH for review, "in a manner that demonstrates its applicability and technical adequacy," as required under HAR §11-280.1-63(b) and 72(a). As described in previous DOH letters, to be considered technically adequate the data must be thoroughly evaluated in a holistic manner and any conclusions must rely primarily on actual site data, not modeling. If data is omitted, detailed justification for such omissions must be provided.

Due to the extensive size of the UST system, the DOH recommends that the Navy work with the DOH to identify ways to best submit comprehensive yet timely reports.

8. An outline of subsequent steps the Navy will take following the completion of the site assessment.
 - a. If evidence of a release from the UST system is detected, immediate release response actions must be taken within 24 hours in accordance with HAR §11-280.1-61. This includes, but is not limited to, reporting the release to the DOH, as well as taking any necessary actions to reduce the spread of contamination.
 - b. The magnitude and extent of each release area must be determined in accordance with HAR §11-280.1-65. This may include submitting additional work plans and subsequent reports documenting the results of the additional site investigations to the DOH for review and approval.
 - c. Soil, surface water, groundwater, and any other materials contaminated by the identified releases must be remediated. This may include preparing corrective action plans for identified release areas in accordance with HAR §11-280.66.

In addition, as required under HAR §11-280.1-65.2, the Navy shall continue to submit quarterly release response reports for confirmed releases to the DOH documenting “[a]ll release response actions taken” after the last reported date and outlining planned future release response actions. “All release response actions taken” includes all data (e.g., soil vapor, groundwater, soil) gathered during the reporting period, regardless of what project the data was collected under (such as long-term groundwater monitoring, notice of intent groundwater monitoring, consolidated groundwater monitoring, etc.). This data is to be evaluated holistically in each quarterly report and within the context of all historical data collected at the Facility (or UST system) to identify any potential changes or trends in contaminant concentrations over time.

Should you have any questions regarding this letter, please contact Ms. Kelly Ann Lee, Red Hill Project Coordinator, at (808) 586-4226 or at kellyann.lee@doh.hawaii.gov.

Sincerely,

Kathleen Ho

KATHLEEN S. HO
Deputy Director for Environmental Health

- c: Ms. Claire Trombadore, U.S. Environmental Protection Agency [via email only]
Mr. Matthew Cohen, U.S. Environmental Protection Agency [via email only]
RDML Marc Williams, NCTF-RH [via email only]
CAPT James Sullivan, NCTF-RH [via email only]
CAPT Milton Washington, NCTF-RH [via email only]
CAPT Steven Stasick, NCTF-RH [via email only]
Mr. Milton Johnston, NCTF-RH [via email only]
Mr. Joshua Stout, NCTF-RH [via email only]
Ms. Sherri Eng, NCTF-RH [via email only]