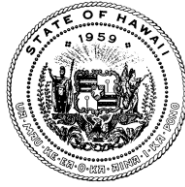


JOSH GREEN, M.D.
GOVERNOR OF HAWAII
KE KIA'AINA O KA MOKU'AINA 'O HAWAII



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:

October 10, 2023

Vice Admiral John Wade
Joint Task Force – Red Hill
1025 Quincy Avenue, Suite 900
Joint Base Pearl Harbor Hickam, Hawaii'i 96860-5101
[via email only: john.f.wade2.mil@us.navy.mil]

Dear Vice Admiral Wade:

**SUBJECT: Defueling Tank Mains and Bottoms, Conditional Approval
Red Hill Bulk Fuel Storage Facility**

I am writing to notify you of the Hawai'i Department of Health's (DOH's) conditional approval of the Joint Task Force - Red Hill's (JTF-RH's) plan for defueling tank mains and bottoms, subject to certain conditions detailed herein.

Leading up to this decision, the DOH and U.S. Department of Defense (DOD) participated in numerous meetings to discuss design and validation of repairs and enhancements, repacking and defueling operations, and spill mitigation measures. The DOH also observed various spill drills and operations, including the successful defueling of the four surge tanks from July 17, 2023, to July 28, 2023, and repacking of the F-24 and JP-5 pipelines from August 28, 2023, to September 5, 2023. This conditional approval is based on these meetings and observations, along with our detailed review of the following documents, which are components of the JTF-RH's plan to defuel the Red Hill Bulk Fuel Storage Facility, as required under the DOH May 6, 2022 Emergency Order:

- Defueling Plan Supplement 2, received May 16, 2023;
- Red Hill Tank Mains Defuel and Red Hill Tank Bottoms Draining Concept of Operations, received July 14, 2023;
- JP-5 Main Defueling, F-24 Main Defueling, and Flowable Bottoms Operation Orders (OPORDs), received July 11, 2023;

- JTF-RH's May 31, 2023 response to DOH's April 14, 2023 email regarding surge mitigation;
- JTF-RH's August 9, 2023 response to DOH's August 4, 2023 letter regarding surge mitigation;
- Red Hill Defueling Operations – Consolidated Process Hazard Analysis, received August 21, 2023;
- JTF-RH's September 22, 2023 response to DOH's September 15, 2023 comments on the Defueling Operational Plan; and
- Defuel Main Tanks Sequencing, received September 28, 2023.

The DOH also reviewed and conditionally approved Quality Validation (QV) Reports for all identified repairs and enhancements needed for repacking and defueling (253 repairs from the original *Consolidated List of Repairs for Safe Defueling*, received October 24, 2022, and 44 repairs from the *Red Hill Incremental Repair List*, received July 28, 2023).

Based on the information provided, we understand defueling will occur in two phases:

1. Tank mains defueling by gravity flow from the Red Hill tanks using the two of the three main fuel pipelines (F-24 and JP-5) primarily to Hotel Pier, with a relatively small portion to the Upper Tank Farm; and
2. Tank bottoms defueling by gravity flow using the fuel oil recovery (FOR) line and JP-5 line to Hotel Pier via a new connection from the FOR line to the JP-5 line near the main containment sump.

Release response and fire teams will be available during both phases to address emergency situations.

Additionally, from communications with the JTF-RH and Fleet Logistics Center (FLC), we understand the system will be equalized prior to initiating fuel flow through the newly installed equalization lines, whenever the pressure gauges indicate a difference between the tank and line pressure. The updated OPORDs will also include a statement with expected pressures. Lastly, the JTF-RH and FLC will complete training before the operation, to ensure full and consistent understanding of the defueling operation among personnel.

Regarding spill mitigation, we understand that various measures were installed between the underground pump house and tank gallery before repacking to direct potential fuel flow away from preferential pathways to the environment. For example, drains along the Hume Line in the Harbor Tunnel were sealed, diversion berms were installed at

Adits 2 and 3, and spill response kits were strategically placed throughout the facility. These measures should still be and shall remain in place.

The DOH, therefore, conditionally approves the plan for defueling tank mains and bottoms, provided that the following items are completed before defueling, unless otherwise specified:

1. If any findings from continued monitoring of the underground storage tank system since repacking require attention or warrant concern for defueling, notify the DOH immediately and investigate and resolve the findings before defueling.
2. Equipment used for defueling must be up-to-date on calibration. We note that QV Reports for Repair Nos. 52, 89, and 104 state the PITs (pressure indicating transmitters) are due for calibration in September 2023.
3. The JTF-RH must host a spill mitigation walk-through, currently scheduled for October 10, 2023 (tank mains) and November 30, 2023 (tank bottoms), for the DOH to confirm measures installed prior to repacking and specifically for defueling are in place. The JTF-RH must address any concerns the DOH identifies during walk-throughs.
4. The JTF-RH must provide QV that spill mitigation measures are replaced, if moved for environmental sampling. The rigid diversion barriers installed upgradient of the monitoring wells in the Tank Gallery and Harbor Tunnel must be properly positioned and weighed to divert fuel away from monitoring wells in case of a release. Also, as discussed between regulators, JTF-RH, and Navy on August 4, 2023, environmental sampling should be conducted when risk of release is relatively lower (e.g., avoiding the start and end of fuel movement evolutions).
5. Recognizing the schedule is subject to change, the JTF-RH must provide daily updates during defueling of work performed and any changes to the schedule.
6. The JTF-RH must submit OPORDs and valve diagrams for each specific fuel movement pathway (mains and bottoms) to any new potential destination or those with significant changes to previously submitted documents. For new OPORDs and valve diagrams (e.g., fuel movement to the Upper Tank Farm), provide the DOH at least five (5) business days to review. The JTF-RH shall address the DOH's concerns before starting the activity. The DOH will expeditiously review submissions (about three [3] business days) to provide the JTF-RH time (about two [2] business days) to address DOH comments. New OPORDs must be accompanied by an explanation of mitigative measures to address potential risks identified in *Appendix D of HYDRAULIC ANALYSIS AND DYNAMIC TRANSIENT SURGE EVALUATION, FISC Pearl Harbor Fuel System*,

Vice Admiral John Wade
October 10, 2023
Page 4 of 4

Pearl Harbor, Hawaii, Final Report, dated September 2010. OPORDs should list the correct valves to be used when defueling each tank. On October 4, 2023, the DOH received OPORD for activities scheduled for the week of October 16, 2023.

7. The DOH must be permitted to observe defueling of the Red Hill Tanks beginning on October 16, 2023. Please accommodate our staff.

Conditional approval of the JTF-RH's plan for defueling tank mains and bottoms marks an important milestone in the process that will ultimately result in permanent closure of the Red Hill Facility and remediation of O'ahu's aquifer. Many people have worked for many months to reach this milestone, and we appreciate and fully expect that the Navy will continue to uphold its commitments to the people of Hawai'i and our environment.

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

Sincerely,

Kathleen Ho

KATHLEEN S. HO
Deputy Director for Environmental Health

- c: Mr. Grant Scavello, U.S. Environmental Protection Agency [via email only]
Mr. Evan Osborne, U.S. Environmental Protection Agency [via email only]
BG Michelle Link, JTF-RH [via email only]
LTC Noor James, JTF-RH [via email only]