

Fuel Tank Advisory Committee

Report to the 2024 Regular Session Legislature



Prepared by

Hawai'i Department of Health

Solid & Hazardous Waste Branch

Underground Storage Tank Section

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Contents

I. Statutory Requirement	3
II. 2023 Meetings by the Numbers	3
III. June 6, 2023 Meeting Summary	4
A. Meeting Resources.....	4
B. Meeting Summary.....	4
1. Other Public Engagement 00:16:15	4
2. Defueling Update 00:22:00.....	5
3. Closure Plan Update 00:58:15	5
4. Remediation Update 01:22:30	6
5. Other Developments Since November 2022 FTAC Meeting	7
6. Public Questions/Comments 02:53:30.....	7
IV. November 15, 2023 Meeting Summary	8
A. Meeting Resources.....	8
B. Meeting Summary.....	8
1. Defueling Update 00:10:00.....	9
2. Facility Closure 00:57:30.....	9
3. Site Investigation and Remediation 01:36:30	10
4. Other Developments Since June 2023 FTAC Meeting 02:10:00.....	11
5. Public Questions/Comments 02:21:00.....	11

**Report to the Thirty-Second Hawai‘i State Legislature
2023 Fuel Tank Advisory Committee Meetings**

Page 3 of 11

I. Statutory Requirement

The Fuel Tank Advisory Committee (FTAC) was established under Hawai‘i Revised Statutes (HRS) §342L-61. According to HRS §342L-62, the FTAC shall:

[S]tudy issues related to leaks of field-constructed underground fuel storage tanks at the Red Hill Bulk Fuel Storage Facility, Kuahua Peninsula, Pacific Missile Range Facility Barking Sands, Hickam Pol Annex, and Schofield Barracks Military Reservation. The advisory committee shall consider:

- (1) The short- and long-term effects of leaks of the fuel tanks, including effects relating to the health of residents, safe drinking water, and the environment;
- (2) Response strategies to mitigate the effects of leaks from fuel tanks;
- (3) Methods to improve communication between the United States Navy, Air Force, and Army; the State; any local board of water supply; and the public in the event of a leak of any fuel tank;
- (4) Groundwater test results in relation to the surrounding areas of fuel tank facilities, with a particular emphasis on the groundwater near the Red Hill Bulk Fuel Storage Facility;
- (5) The implications of shutting down any fuel tank facility; and
- (6) Updates on progress toward meeting goals of agreement between the State, the affected county, and the federal government.

Following the May and November 2021 fuel spills from the Red Hill Facility, FTAC meetings have focused solely on Red Hill. For calendar year 2023, the FTAC held meetings on June 6, 2023 and November 15, 2023.

II. 2023 Meetings by the Numbers

Public Attendance		
	June 6, 2023 Meeting	November 15, 2023 Meeting
Online Attendance	80	63
In-Person Attendance	~60	~30
Total	~140	~93

Public attendance excludes the actual FTAC members (i.e., other attendees from the same agencies are counted) and staff/contractors from the Hawai‘i Department of Health (DOH), U.S. Environmental Protection Agency (EPA), and U.S. Department of Defense (DoD). Numbers are estimated, as attendees do not always provide their actual agency affiliations.

**Report to the Thirty-Second Hawai‘i State Legislature
2023 Fuel Tank Advisory Committee Meetings**

Page 4 of 11

Other Numbers		
	June 6, 2023 Meeting	November 15, 2023 Meeting
Written Public Comments	11	1
FTAC Member Attendance	11	8

III. June 6, 2023 Meeting Summary

A. Meeting Resources

The resources below are available to the public. Speaker presentations were posted roughly one week in advance to allow participants to review the materials ahead of time.

- **Agenda:** <https://health.hawaii.gov/ust/files/2023/06/FTAC-Agenda-June-6-2023.pdf>
- **Presentations:** <https://health.hawaii.gov/ust/ust-home-test/ust-red-hill-project-main/red-hill-task-force-meeting/>
- **Recording:** <https://www.youtube.com/watch?v=kLKzjOscCvM>

B. Meeting Summary

The DOH convened the tenth FTAC meeting on June 6, 2023 in-person at the Moanalua High School Performing Arts Center in Honolulu and virtually on Zoom. The meeting was recorded and broadcast by 'Ōlelo Community Media.

At 1:00 PM HST, Chair Kathleen Ho, DOH Deputy Director for Environmental Health, convened the meeting. Other members present were: Hawai‘i State Senator Mike Gabbard, Kaleo Manuel (Hawai‘i Department of Land and Natural Resources, Board of Land and Natural Resources), Ernest Lau (Honolulu Board of Water Supply), Dr. Melanie Lau (public appointee), Hawai‘i State Representative Nicole Lowen, Ryan Imata (Hawai‘i Department of Land and Natural Resources, Commission on Water Resource Management), Ashley Nishihara (public appointee), Carlos Santana (U.S. Senator Mazie Hirono designee), David Taga (U.S. Representative Jill Tokuda designee), and Claire Trombadore (U.S. Environmental Protection Agency). The meeting was facilitated by DOH contractor, Keith Mattson.

1. Other Public Engagement [00:16:15](#)

Mr. Mattson mentioned other public engagement opportunities in 2023 and introduced the EPA’s new online Red Hill Public Engagement Calendar.

Presentation: https://health.hawaii.gov/ust/files/2023/05/2a-EPA_Public-Engagement.pdf

The presentation was followed by a question and comment period for the FTAC members.

**Report to the Thirty-Second Hawai‘i State Legislature
2023 Fuel Tank Advisory Committee Meetings**

Page 5 of 11

2. Defueling Update [00:22:00](#)

Vice Admiral John Wade, Commander of Joint Task Force – Red Hill (JTF-RH), provided an update on defueling. On September 30, 2022, the JTF-RH assumed control of the DoD’s Defueling Plan. Since then, the JTF-RH has worked with the DOH and EPA to condense the schedule, so that gravity defueling may occur from October 2023 to January 2024, instead of February to June 2024 as originally planned. Gravity defueling should remove slightly over 104 million gallons of fuel, which is roughly 99.85% of the fuel in the facility. The expedited schedule is based on conditions such as receiving regulatory approvals, having working infrastructure and equipment, and completing National Environmental Policy Act requirements. After gravity defueling, the JTF-RH expects that 100,000 to 400,000 gallons (gal) of residual fuel will remain in low point drains and pipe sags. On May 16, 2023, the DoD released Defueling Plan Supplement 2 and the JTF-RH released its informational app.

Presentation: <https://health.hawaii.gov/ust/files/2023/06/JTF-Red-Hill-FTAC-Slides-v3.pdf>

The DOH and EPA provided an overview of the regulatory framework in place to oversee and enforce defueling. The DOH regulates underground storage tank systems under the HRS and Hawai‘i Administrative Rules, as well as the May 6, 2022 Emergency Order (EO) that requires the U.S. Department of the Navy (Navy) to defuel and permanently close Red Hill. The EPA has separate but parallel authority under the 2023 Administrative Consent Order (ACO), which was cosigned by the Navy and Defense Logistics Agency (DLA) on June 2, 2023, a few days before this FTAC meeting. As of this meeting, the DOH and EPA are reviewing the DoD’s Defueling Plan Supplement 2, quality validation reports for repairs needed to safely defuel, and concept of operations and operation orders explaining how and where fuel will move. The DOH and EPA’s onsite presence will increase as the plans are approved and implemented.

Presentation: https://health.hawaii.gov/ust/files/2023/05/3b-DOH-EPA_Defueling_FTACSlide_FINAL2.pdf

Defueling presentations were followed by a question and comment period for the FTAC members.

3. Closure Plan Update [00:58:15](#)

Rear Admiral Stephen Barnett, Commander of Navy Region Hawai‘i, provided an update on Red Hill closure. The Navy requested the DOH’s approval on “closure in place” as the method of permanent closure. The Navy believes this is the safest and least environmentally impactful option compared to filling or removing the tanks. There are three beneficial reuse studies underway that will be briefed to Congress in February or March 2024: A University of Hawai‘i (UH) study, a DoD study, and a study contracted by the Navy conducted by Nakupuna Companies. Darlene Ige, Environmental Program Manager for Nakupuna Companies, provided an update on the Nakupuna study. As of this meeting, Nakupuna completed interviews of 30 key

**Report to the Thirty-Second Hawai'i State Legislature
2023 Fuel Tank Advisory Committee Meetings**

Page 6 of 11

stakeholders and a qualitative online survey open to the public. Ms. Ige briefly summarized results from these two efforts. The next stage will be a quantitative survey mailed and emailed to residents in the Red Hill area. The report for the Nakupuna study will be available to the public in November 2023.

Presentation: <https://health.hawaii.gov/ust/files/2023/06/Navy-FTAC-2Q2023-Brief-Draft-06JUN2023-Final.pdf>

The DOH and EPA provided a summary on regulatory oversight for Red Hill closure, which utilizes the same legal authorities as defueling. The regulators' priorities for closure are that the Red Hill facility is rendered inoperable and environmental monitoring continues. Under the EO and ACO, the Navy must submit a closure plan supporting the proposed method of closure (closure in place) that includes components such as a cleaning plan, waste management plan, and site assessment. When the Navy provides these, the DOH and EPA will review them as they are submitted, similar to the Defueling Plan, to expedite approval and implementation.

Presentation: https://health.hawaii.gov/ust/files/2023/05/4c-DOH-EPA_Closure_FTACSlide_FINAL2.pdf

Closure presentations were followed by a question and comment period for the FTAC members.

4. Remediation Update [01:22:30](#)

CAPT Cameron Geertsema, then-Commanding Officer of NAVFAC Hawai'i, provided a summary of environmental and remediation work. After the DOH's health advisory, the Red Hill Shaft (RHS) was disconnected from the drinking water system in December 2021. Since then, Waiawa Shaft has been the Navy's sole source for drinking water. The Navy is required to complete a two-year Drinking Water Long-Term Monitoring (DW LTM) program for schools and housing on the Navy's distribution system. The Navy has collected roughly 5,300 of the 7,800 required samples. CAPT Geertsema provided a phone number for those who would like to add their houses to the DW LTM list. All test results are available on the Navy's Safe Waters website, which has an interactive map to allow people to search for their homes and schools. There have been no JP-5 detections in the drinking water since the program started.

CAPT Geertsema also summarized the Navy's schedule of ongoing environmental remediation efforts. Actions highlighted were the Navy's RHS flow optimization study being conducted to determine whether the discharge rate can safely be decreased, continued soil vapor and groundwater monitoring in and around the facility, monitoring well network expansion, and a separate UH modeling effort funded by an Office of Naval Research grant.

Presentation: <https://health.hawaii.gov/ust/files/2023/06/Navy-FTAC-2Q2023-Brief-Draft-06JUN2023-Final.pdf>

The DOH and EPA followed with regulatory updates. Although remediation is the Navy's responsibility, the DOH and EPA closely oversee environmental work and independently

Report to the Thirty-Second Hawai‘i State Legislature
2023 Fuel Tank Advisory Committee Meetings

Page 7 of 11

analyze data from the 2021 fuel releases and 2022 AFFF release. The DOH and EPA presented total petroleum hydrocarbons (TPH) heat maps created using several different methods that show the plume expanding immediately after the 2021 releases and gradually contracting over time. The DOH and EPA continue to create opportunities for technical stakeholder input to inform regulatory decision-making. Examples of these efforts include the Red Hill Remediation Roundtable, quarterly stakeholder subject matter expert meetings, the DOH and EPA’s Red Hill webinar series, and the EPA’s new interactive groundwater data application that makes the Navy’s data accessible to the public.

Presentations:

<https://health.hawaii.gov/ust/files/2023/06/5d-EPA-DOH-Env-Work-1.pdf>

https://health.hawaii.gov/ust/files/2023/06/June-2023-FTAC_FINAL-slides-5e-only3.pdf

Remediation presentations were followed by a question and comment period for the FTAC members.

5. Other Developments Since November 2022 FTAC Meeting

a. DOD Red Hill Medical Clinic [02:11:00](#)

Dr. William Rice from the Defense Health Agency (DHA) provided an update on the Red Hill Clinic, which opened to military patients in January 2023 and non-military patients in April 2023. The DHA also invited the Centers for Disease Control and Prevention and Agency for Toxic Substances and Disease Registry to review medical records to identify trends and correlations among patients. Lastly, the DoD recently approved a health registry.

Presentation: https://health.hawaii.gov/ust/files/2023/05/6b-RHC_FTACSlide_FINAL.pdf

b. Proposed 2023 EPA/Navy Consent Order [02:16:15](#)

Amy Miller, EPA Region IX Director of Enforcement and Compliance Assurance Division, reviewed the timeline leading to the recent finalization of the ACO on June 2, 2023. The initial ACO was released for public comment in December 2022, followed by a public meeting and open house in January 2023. Roughly 1,700 public comments were received, prompting changes to the final ACO, such as including deadlines in the Defueling Plan; establishing a Community Representation Initiative (CRI), which will meet regularly with the Navy, DLA, and EPA on ACO actions; and enhanced reporting requirements for spills.

Presentation: https://health.hawaii.gov/ust/files/2023/06/June-2023-FTAC_Consent-Order-slides_final-2.pdf

These presentations were followed by a question and comment period for the FTAC members.

6. Public Questions/Comments [02:53:30](#)

**Report to the Thirty-Second Hawai'i State Legislature
2023 Fuel Tank Advisory Committee Meetings**

Page 8 of 11

Public attendees both in-person and on Zoom had an opportunity to provide comments and ask questions. The meeting adjourned at approximately 5:45 PM HST.

11 written comments were received before the meeting:

<https://health.hawaii.gov/ust/files/2023/06/public-comments-FTAC-6.6.23.pdf>

IV. November 15, 2023 Meeting Summary

A. Meeting Resources

The resources below are available to the public. Speaker presentations were posted roughly one week in advance to allow participants to review the materials ahead of time.

- **Agenda:** <https://health.hawaii.gov/ust/files/2023/11/Nov-15-2023-FTAC-Final-Agenda.pdf>
- **Presentations:** <https://health.hawaii.gov/ust/ust-home-test/ust-red-hill-project-main/red-hill-task-force-meeting/>
- **Recording:** <https://www.youtube.com/watch?v=7iTWPjvkxT4>

In addition, the DHA was present for health-related questions and provided the following resources during the public comment period:

- **DHA Health Website:** <https://phc.amedd.army.mil/topics/campaigns/red-hill-public-health/Pages/default.aspx>
- **Red Hill Health e-Update Subscription Sign-Up:** https://public.govdelivery.com/accounts/USMHS/subscriber/new?topic_id=USMHS_161
- **Org box:** dha.redhill@health.mil

B. Meeting Summary

The DOH convened the eleventh FTAC meeting on November 15, 2023 in-person at the Neal S. Blaisdell Center (Pikake Room) in Honolulu and virtually on Zoom. The meeting was recorded and broadcast by 'Ōlelo Community Media.

At 1:00 PM HST, the meeting was convened by Acting Chair Gracelda Simmons, DOH Hazard Evaluation and Emergency Response Office, Environmental Management Program Manager. Other members present were: Hawai'i State Senator Mike Gabbard, Ryan Imata (Hawai'i Department of Land and Natural Resources, Board of Land and Natural Resources), Erwin Kawata (Honolulu Board of Water Supply designee), Dr. Melanie Lau (public appointee), Kaleo Manuel (Hawai'i Department of Land and Natural Resources, Commission on Water Resource Management), Ashley Nishihara (public appointee), and Claire Trombadore (EPA). The meeting was facilitated by DOH contractor, Keith Mattson.

**Report to the Thirty-Second Hawai'i State Legislature
2023 Fuel Tank Advisory Committee Meetings**

Page 9 of 11

1. Defueling Update 00:10:00

VADM John Wade, Commander of JTF-RH, provided an update on defueling activities. As of the meeting, 95% of the fuel in the Red Hill main fuel tanks was removed. During the operation thus far, two points of infrastructure leaked a total of approximately 3 gal of jet fuel. All leaks were contained, and no fuel was released into the environment. The JTF-RH will pause operations for Thanksgiving, defuel the flowable tank bottoms, pause again for Christmas, then unpack the pipelines. An estimated 64,000 gal of residual fuel is expected to remain in low points and sags after unpacking. The JTF-RH will remove about 60,000 gal of the residual fuel while transitioning leadership back to the Navy from January through March 2024. The Navy will be responsible for removing the remaining estimated 4,000 gal of fuel, which will likely involve demolition of infrastructure.

Presentation: <https://health.hawaii.gov/ust/files/2023/11/Agenda-Item-2-JTF-RH-Defueling-Update-v2023-11-15.pdf>

The DOH and EPA provided an overview of activities related to regulatory oversight. Since the previous FTAC meeting in June 2023, the DOH and EPA conditionally approved the JTF-RH's Defueling Plan supporting an early defueling start date of October 16, 2023. The DOH and EPA have been on-site overseeing operations to ensure the plans are being followed and conditions to regulatory approvals are being adhered to. Currently, the DOH and EPA are reviewing the JTF-RH's Defueling Plan Supplement 3, which was submitted on November 14, 2023, the day before this FTAC meeting.

Presentation: <https://health.hawaii.gov/ust/files/2023/11/Agenda-Item-2e-DOHEPA-Defueling-Regulatory-Oversight-v2023-11-08.pdf>

Defueling presentations were followed by a question and comment period for the FTAC members.

2. Facility Closure 00:57:30

Representatives from the Navy discussed closure of the Red Hill Facility. RDML Stephen Barnett introduced himself as Commander of the Navy Closure Task Force – Red Hill, per the Secretary of Defense's designation on November 6, 2023. Darlene Ige, Environmental Program Manager for Nakupuna Companies, summarized the quantitative results from the public beneficial reuse study contracted by the Navy. Her presentation discussed the ratio of people for and against beneficial reuse of the tanks and ranked beneficial reuse options for those in support of reuse.

Presentation: <https://health.hawaii.gov/ust/files/2023/11/Agenda-Item-3-Navy-Facility-Closure-v2023-11-14-1.pdf>

Report to the Thirty-Second Hawai‘i State Legislature
2023 Fuel Tank Advisory Committee Meetings

Page 10 of 11

The DOH and EPA provided an overview of regulatory oversight for closure. The EO and ACO provide requirements for the Navy’s Closure Plan, including a cleaning plan, waste management plan, and a plan for site investigation and remediation. The DOH and EPA have not approved a Closure Plan because the Navy has not completed any of these components. The DOH expressed concern that the Navy does not have a schedule explaining when it will complete all regulatory requirements. The EPA emphasized the importance of cleaning the facility without releasing additional fuel or surfactants into the environment.

Presentation: <https://health.hawaii.gov/ust/files/2023/11/Agenda-Item-3e-DOHEPA-Closure-Oversight-v2023-11-08.pdf>

Closure presentations were followed by a question and comment period for the FTAC members.

3. Site Investigation and Remediation [01:36:30](#)

CAPT James Sullivan, Commanding Officer of NAVFAC Hawai‘i, provided an update on the DW LTM Program for the Navy’s Joint Base Pearl Harbor-Hickam water distribution system and site investigation and remediation work for the Red Hill Facility. The two-year DW LTM Program, required by the ACO is scheduled to end in March 2024. CAPT Sullivan provided the Navy’s website where DW LTM data is available and contact information for those who would like to have their water tested. He also provided an overall schedule of Red Hill site investigation and remediation work and emphasized that there is no end to the timeline.

Presentation: <https://health.hawaii.gov/ust/files/2023/11/Agenda-Item-4-Navy-Site-Investigation-Remediation-v2023-11-14.pdf>

The DOH and EPA provided a summary of oversight for environmental work at the Red Hill facility. Heat maps of TPH exceedances from monitoring wells in and around the facility indicate that the plume may be expanding and contracting over time, with an overall decreasing trend since the 2021 releases. The DOH and EPA will continue to independently analyze results from the Navy’s groundwater sampling. As part of closure, the Navy is required to provide the DOH and EPA a site assessment plan that identifies and addresses all historical releases throughout the entire underground storage tank system, which spans from the Red Hill fuel tanks to the pier. Once the site is adequately assessed, the Navy is required to propose remediation options, which the regulatory agencies will review, approve, and oversee the implementation of.

Presentation: <https://health.hawaii.gov/ust/files/2023/11/Agenda-Item-4e-DOHEPA-Remediation-Oversight-v2023-11-08.pdf>

Site investigation and remediation presentations were followed by a question and comment period for the FTAC members.

**Report to the Thirty-Second Hawai'i State Legislature
2023 Fuel Tank Advisory Committee Meetings**

Page 11 of 11

4. Other Developments Since June 2023 FTAC Meeting [02:10:00](#)

Amy Miller, EPA Region IX Director of Enforcement and Compliance Assurance Division, provided an update about the CRI required under the ACO. Since the last FTAC Meeting in June 2023, ten CRI members were elected by the public by way of vote in September 2023. The CRI had its first formal meeting with the ACO parties, the EPA, Navy, and DLA, on October 5, 2023. These meetings will continue to be held twice per quarter, as required under the ACO.

Presentation: <https://health.hawaii.gov/ust/files/2023/11/Agenda-Item-5-EPANavy-CRI-v2023-11-13.pdf>

The presentation was followed by a question and comment period for the FTAC members.

5. Public Questions/Comments [02:21:00](#)

Public attendees both in-person and on Zoom had an opportunity to provide comments and ask questions. The meeting adjourned at approximately 5:30 PM HST.

One written comment was received before the meeting. The DHA reported that it would reach out to the commenter to respond: <https://health.hawaii.gov/ust/files/2023/12/FTAC-15-Nov-2023-Public-Written-Comment.pdf>

In December 2023, the Navy provided written responses to three specific questions from FTAC members: <https://health.hawaii.gov/ust/files/2023/12/Select-FTAC-Member-QAs.pdf>