



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:

December 26, 2019

The Honorable Ronald D. Kouchi,
President and Members of the Senate
Thirtieth State Legislature
State Capitol, Room 409
Honolulu, Hawaii 96813

The Honorable Scott K. Saiki, Speaker
and Members of the House of
Representatives
Thirtieth State Legislature
State Capitol, Room 431
Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

For your information and consideration, I am transmitting a copy of the Annual Report to the Legislature on the Fuel Tank Advisory Committee Meeting to Study the Issues Related to Leaks of Field-Constructed Underground Storage Tanks at the Red Hill Bulk Fuel Storage Facility, and Four Other DOD Facilities pursuant to Section 342L-62 Hawaii Revised Statutes (HRS). In accordance with Section 93-16, HRS, I am also informing you that the report may be viewed electronically at:

<https://health.hawaii.gov/opppd/department-of-health-reports-to-2020-legislature/>

Sincerely,

A handwritten signature in black ink that reads "Bruce S. Anderson".

Bruce S. Anderson, Ph.D.
Director of Health

Enclosures

REPORT TO THE THIRTIETH LEGISLATURE
STATE OF HAWAII
2020

FUEL TANK ADVISORY COMMITTEE

PURSUANT TO SECTION 342L-62 HAWAII REVISED STATUTES, REQUIRING THE
DEPARTMENT OF HEALTH TO SUBMIT AN ANNUAL REPORT TO THE LEGISLATURE
ON THE FUEL TANK ADVISORY COMMITTEE MEETING
TO STUDY THE ISSUES RELATED TO LEAKS OF FIELD-CONSTRUCTED
UNDERGROUND STORAGE TANKS AT RED HILL BULK FUEL STORAGE FACILITY,
AND FOUR OTHER DOD FACILITIES

PREPARED BY:
STATE OF HAWAII
DEPARTMENT OF HEALTH
UNDERGROUND STORAGE TANK SECTION
DECEMBER 2019

I. PURPOSE

The purpose of Section 342L-62, Hawaii Revised Statute from Hawai'i's 2016 Legislative Session, was to request the State Department of Health (DOH) to convene the Fuel Tank Advisory Committee (FTAC) to study issues related to leaks from field-constructed underground fuel storage tanks that were constructed in the 1940s in response to wartime activities. Scrutiny of these aging large capacity tanks increased after a 27,000-gallon fuel release was reported from the Red Hill Bulk Fuel Storage Facility ("RHBFSF") in January 2014.

This report, prepared by the DOH summarizes the 4th annual meeting held on October 17, 2019 at the State Capitol.

II. COMMITTEE REQUIREMENTS

Section 342L-62 requests that the Department of Health convene a Fuel Advisory Committee composed of ex officio members and at least two public members.

1. The ex officio members of the committee shall be;
 - a. The director of health, who shall serve as the committee's chair;
 - b. The four members of Hawaii's congressional delegation, or their designees;
 - c. The president of the Hawaii senate, or a senator appointed by the president of the senate;
 - d. The speaker of the Hawaii house of representatives, or a representative appointed by the speaker of the house;
 - e. The chairperson of the board of land and natural resources, or the chairperson's designee;
 - f. The chairperson of the board of water supply of a county with a population of five hundred thousand or more, or the chairperson's designee; and
 - g. The chairperson of the commission on water resource management, or the chairperson's designee.
2. The following persons shall be invited to participate on the advisory committee as ex officio members:
 - a. The Commanding General of the United States Army, Pacific, or the Commanding General's designee;
 - b. The Commander of the Pacific Fleet of the United States Navy, or the Commander's designee;
 - c. The Commander of the Pacific Air Forces, or the Commander's designee; and
 - d. A representative from the United States Environmental Protection Agency, or the representative's designee.
3. The governor shall appoint at least two public members from the community at large

The FTAC is also requested to specifically evaluate these locations:

- a. Red Hill
- b. Kuahua Peninsula
- c. Pacific Missile Range
- d. Hickam POL Annex
- e. Schofield Barracks

The advisory committee is requested to consider:

- a. 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;
- b. Response strategies to mitigate the effects of leaks from fuel tanks;
- c. 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;
- d. 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;
- e. The implications of shutting down any fuel tank facility; and
- f. Updates on progress toward meeting goals of agreement between the State, the affected county, and the federal government.
- g. The advisory committee shall submit a report on its findings, including groundwater test results, and recommendations, including any proposed legislation, to the legislature.

III. COMMITTEE FORMATION

The Department of Health was tasked to organize the FTAC, and they reached out to each representative specified in Section II through a letter invitation back in 2016. In the years after invitations were initially accepted from the prescribed agencies, membership changes and attendance would vary in each of the following four meetings. Through the findings from the previous meetings, the scope and membership of the Committee has also evolved. Schofield Barracks was removed from the list of facilities to be studied and the U.S Air Force and the U.S. Army were excused from future meetings since they no longer own nor operate field-constructed tanks. U.S. Senator Brian Schatz's office also declined to participate in an official manner due to potential conflicts with his work on the Congressional Appropriations Committee. All agendas, minutes and presentations from all previous meetings, and this 4th meeting, can all be found at <https://health.hawaii.gov/shwb/red-hill-task-force-meetings-2014/>.

For this 4th annual meeting, the Committee consisted of the following members:

1. Keith Kawaoka, Deputy Director, Hawaii Department of Health, Environmental Health Administration
2. Jacqueline Conant, District Director, U.S. Congressman Ed Case

3. Alan Yamamoto, Chief of Staff, U.S. Senator Mazie Hirono
4. Kainoa Penarozza, Chief of Staff, U.S. Congresswoman Tulsi Gabbard
5. Rock Riggs, Office Manager/Committee Clerk. Hawaii Senator Mike Gabbard
6. Suzanne Case, Chairperson of the Department of Land and Natural Resources
7. Ernest Lau, Chief Engineer of the Honolulu Board of Water Supply
8. Kaleo Manuel, Deputy Director of the Commission on Water Resource Management, Department of Land and Natural Resources
9. Captain Marc Delao, Regional Engineer, U.S. Navy Region Hawaii
10. Steve Linder, Underground Storage Program Manager, U.S. Environmental Protection Agency Region IX
11. David Yomes, Community Member, Aliamanu/Salt Lake Neighborhood Board
12. Melanie Lau, Community Member, Moanalua Valley Community Association

IV. FTAC MEETING OVERVIEW

Every FTAC meeting includes an update by the U.S. Navy on the only two remaining active sites, the RHBFSF and the Pacific Missile Range Facility in Barking Sands Kaua'i and four other sites that are no longer in use.

The annual updates on the Facility would also include information on the work under the enforceable agreement called the Administrative Order on Consent (AOC) (department docket No.15-UST-EA-01) that became effective in late 2015. The Navy's PowerPoint presentation has been attached to this report and all supporting narrative is included in the transcripts which have also been provided. Much of this year's update focused on the Navy's submittal of their "*Tank Upgrade Alternatives and Release Detection Decision Document*" in mid-September. The link to this report and the AOC and its associated Statement of Work (SOW) can be viewed at <https://health.hawaii.gov/shwb/ust-red-hill-project-main/>. This report, which is required under the AOC, lays out the selection of a tank upgrade option to satisfy the criteria of "Best Available Practicable Technology" (BAPT). The AOC requires either completed upgrades or closure of all existing RHBFSF tanks by 2037 and requires re-evaluation of tank upgrade technologies on a periodic basis throughout its duration.

Another AOC deliverable that was submitted on July 7, 2019 of this year was the "*Corrosion and Metal Fatigue Practices, Destructive Testing Results Report*". The DOH and the U.S. Environmental Protection Agency are currently evaluating these documents to determine whether to accept or reject the proposal/report in whole or in part.

The meeting agenda, the Navy presentation and the transcript memorializing the discussions and exchanges amongst the Committee members and the public comment period at the end of the agenda are attached.

V. Next Committee Meeting

The Committee recommended that they continue to meet annually. DOH is tentatively scheduling the next Fuel Tank Advisory Committee meeting for the end of 2020.

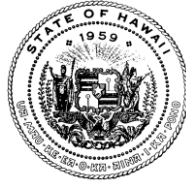
VI. Attachments

- Agenda
- Meeting Transcript
- Navy Presentation on FCTs and Red Hill

VII. References

Department of the Navy (Navy). 2019. *Administrative Order on Consent Statement of Work Section 5.3.3, Corrosion and Metal Fatigue Practices, Destructive Testing Results Report, Red Hill Bulk Fuel Storage Facility, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii*, July 7.

Department of the Navy (Navy). 2019. *Administrative Order on Consent Statement of Work Section 3.5 TUA Decision Document and Section 4.8 New Release Detection Alternatives Decision Document and Implementation, Red Hill Bulk Fuel Storage Facility, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii*, September 9.



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

FUEL TANK ADVISORY COMMITTEE
AGENDA FOR THE FOURTH ANNUAL MEETING
Thursday, October 17, 2019
9:00 a.m. to 11:00 a.m.
Hawaii State Capitol, 415 S. Beretania St., Room 016
Honolulu, HI 96814

- 1. Call to Order**
- 2. Welcome & Introductions – Keith Kawaoka, Deputy Director of Health, Department of Health (DOH), Committee Chair**
 1. Congressional Delegation
 2. State Legislature
 3. Department of Defense
 4. Subject Matter Experts (Board of Water Supply, Department of Land and Natural Resources and Commission on Water Resource Management)
 5. Public Members
 6. U.S. Environmental Protection Agency
- 3. Review of Duties of the Committee – HRS 342L-62 (below)**

Committee to focus on field-constructed tanks (FCTs) at Red Hill Bulk Fuel Storage Facility, Kauhua Peninsula, Pacific Missile Range Facility Barking Sands, and Hickam Pol Annex
- 4. Summary of November 2018 Meeting**
- 5. Navy Updates for Subject Field-Constructed Tanks**
- 6. Navy and Regulatory Update on the Actions Through the Administrative Order on Consent (AOC) at the Red Hill Bulk Storage Facility Pursuant to HRS 342L-62(a)(6)**
 1. Studies Completed and Pending
 2. Future Work Timetable
 3. Regulatory Oversight and Approval Process
- 7. Advisory Committee Discussion on Adequacy of Response Measures and Communication**
- 8. Public Comment Period**
- 9. Adjournment**

HRS 342L-62 (a) *The advisory committee shall study 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. *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 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 country, and the federal government.*

Sign-up to a mailing list for interested persons and agencies to receive this committee's agenda and minutes is available at Underground Storage Tank Program Website <http://health.hawaii.gov/shwb/underground-storage-tanks/>. You may also contact the Solid & Hazardous Waste Branch at 2827 Waimano Home Road #100, Pearl City, Hawaii 96782; Telephone (808) 586-4226 Fax (808) 586-7509; or call Public Participation Coordinator Thu Perry at (808) 586-4226 or e-mail thu.perry@doh.hawaii.gov. Agendas and minutes are also available on the internet at Red Hill Website <http://health.hawaii.gov/shwb/ust-red-hill-project-main/>

If you require special assistance, auxiliary aid and/or service to participate in this event (i.e. sign language interpreter; interpreter for language other than English, or wheelchair accessibility), please contact Thu Perry by **October 7, 2019** at 586-4226 or e-mail thu.perry@doh.hawaii.gov so arrangements can be made. If you reply after the date given, we cannot ensure that your request will be fulfilled.

ORIGINAL

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8 FOURTH ANNUAL FUEL TANK ADVISORY COMMITTEE

9 Thursday, October 17, 2019

10 9:07 a.m. to 11:54 a.m.

11 State Capitol

12 Honolulu, Hawaii
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P R O C E E D I N G S

1
2 COMMITTEE CHAIR: Good morning, everybody, why
3 don't we get started. There might be some additional
4 Task Force members who might come in. We want to
5 welcome everybody, Task Force members. Just as a
6 reminder, we have a sign-in sheet in the front in the
7 lobby that if anybody wants to give comments during
8 this meeting, you are welcome to. We'll use that
9 sign-up sheet to determine, depending on how many you
10 sign up, the allotted time that we'll distribute to
11 those people who want to make comment.

12 And there's another reminder. We do have a
13 court reporter, raise your hand. So make sure that
14 when you do have a comment, that you state your name
15 clearly so that the court reporter can record it.

16 As far as the Task Force members itself, why
17 don't we go down the line, starting from the other end,
18 and just introduce yourself.

19 MR. LAU: Sorry about that, folks, my voice is a
20 little funny. Ernie Lau, the manager and chief
21 engineer for Honolulu Board of Water Supply. I just
22 thank you for the opportunity to be here and appreciate
23 the Legislature establishing this committee on a
24 permanent basis. Thank you.

25 MR. MANUEL: Aloha. Kaleo Manuel, Deputy Director

1 of the Commission on Water Resource Management.

2 MS. CASE: Suzanne Case, Chair of Department of
3 Land and Natural Resources, and Chair of the Water
4 Commission.

5 MR. YOMES: David Yomes, community member. I am
6 also on the Aliamanu/Salt Lake neighborhood board.

7 DR. MELANIE LAU: Hi. I'm Dr. Melanie Lau, and I'm
8 representing the Moanalua Valley Community Association
9 as a community member.

10 MS. CONANT: Hi. I'm Jackie Conant, District
11 Director for Congressman Ed Case.

12 ALAN YAMAMOTO: Alan Yamamoto, office of Senator
13 Hirono.

14 MR. PENAROZA: Good morning. Kainoa Penaroza with
15 the office of Congresswoman Tulsi Gabbard.

16 MR. LINDER: Good morning. I'm Steve Linder from
17 the U.S. Environmental Protection Agency. I manage the
18 Underground Storage Tank Program for US EPA Region 9.

19 COMMITTEE CHAIR: Good morning again. My name is
20 Keith Kawaoka. I'm the Deputy Director from
21 Environmental Health, and I'll be moderating this
22 meeting.

23 CAPT. DELAO: I'm Captain Delao from NAVFAC Hawaii,
24 also the Regional Engineer for Navy Region Hawaii.

25 COMMITTEE CHAIR: Okay. Good morning, and thank

1 you, Task members, for being present this morning.
2 Before we get started on the presentation, I just want
3 to reiterate, based on HRS 342L-62, the duties of the
4 Task Force. The Advisory Committee shall study:

5 (1) Issues related to leaks from
6 field-constructed tanks, storage tanks at the Red Hill
7 Fuel Storage Facility, Kuahua Peninsula, Pacific
8 Missile Range Barking Sands, the Hickam POL Annex, and
9 the Schofield Barracks Military Reservation. The
10 Advisory Committee shall consider short- and long-term
11 effects from the leaks of fuel tanks, including effects
12 relating to the health of residents, safe drinking
13 water and the environment.

14 (2) Response strategies to mitigate the effects
15 of leaks from fuel tanks.

16 (3) Methods to improve communications between
17 the U.S. Navy, Air Force, Army; the State; and local
18 board of water supply; as well as the public in the
19 event of a leak in any fuel tank.

20 (4) Groundwater test results in relation to the
21 surrounding areas of fuel tank facilities, with a
22 particular emphasis on groundwater near Red Hill
23 Storage Facility.

24 (5) The implications of the shutting down of
25 any fuel tank facility; and

1 (6) The updates on progress towards meeting
2 goals of agreement between the State, the affected
3 country, and the federal government.

4 So, with that, I'd like to review last year's
5 meeting in November 2018, Thu Perry.

6 MS. PERRY: Good morning. My name is Thu Perry.
7 I'm a public participation coordinator for the
8 Underground Storage Tank Program for the Department of
9 Health. As Keith alluded to, we have some forms in the
10 front. If you haven't already done so, please sign up
11 for updates as well as to speak. And we also have
12 written forms that if you prefer to submit testimony in
13 a written manner. I've also provided my business
14 cards, if you would like to contact me that way.

15 So, right now, just to give you a little
16 background on the committee and also a summary of last
17 year's meeting. As you're probably aware, in
18 January 2014, there was a 27,000-gallon release at the
19 Red Hill facility. For the next two years, the Hawaii
20 Legislature passed two concurrent resolutions which
21 resulted in several temporary Task Force meetings and a
22 number of technical meetings. The objective of these
23 meetings was to investigate what happened and to
24 determine what needs to be done to prevent future
25 releases.

1 During one of these meetings, information was
2 shared about the existence of other field-constructed
3 tanks that were built in Hawaii in 1940's time frame.
4 So, in 2016, this Fuel Tank Advisory Committee was
5 formed under Hawaii Revised Statute 342-L, Chapter 62,
6 to expand on the scope and review of these other
7 field-constructed tanks. Today is the fourth annual
8 meeting.

9 In previous meetings, the membership of this
10 committee has also changed a bit. The U.S. Army and
11 the U.S. Air Force were removed from future
12 participation because they no longer own and operate
13 field-constructed tanks in Hawaii.

14 Hickam Air Force Base gave up ownership of
15 their field-constructed tanks to the Navy when they
16 were realigned to form Joint Base Pearl Harbor-Hickam
17 in October of 2010. Another membership change was the
18 exemption of U.S. Senate Brian Schatz office. They no
19 longer participate because of a potential conflict of
20 interest with his work on the Congressional
21 Appropriations Committee.

22 Also, the list of facilities in the statutes to
23 be investigated originally included Schofield Barracks,
24 which, upon additional scrutiny, was misidentified to
25 have field-constructed tanks. This facility was

1 removed from future updates as well.

2 As in all other meetings, last year's Navy
3 presentation included the status of field-constructed
4 tank facilities that were either temporarily or
5 currently out of use, and addressed, of course, the two
6 remaining facilities still operational, which are Red
7 Hill and Pacific Missile Range in Hawaii.

8 During that meeting, one extra topic was
9 included. This was the visual description and the
10 selection criteria for each of the tank 12-by-12-inch
11 coupons that were cut out of Tank 14 in June 2018. At
12 that time, which was November 1st, 2018, the data from
13 the laboratory analysis of these coupons were not yet
14 available. Therefore, any validation of repair scan
15 technology could not yet be performed.

16 So if you're interested, the minutes, the
17 reports, the Legislative report as well, from that
18 meeting and all subsequent Task Force meetings are
19 available on our website, which probably the easiest
20 way to get to that is just to Google "DOH," "Department
21 of Health" and then "Red Hill," or you can also email
22 me. Again, my name is Thu, Thu.Perry@doh.hawaii.gov.

23 For the reports and official letter exchanges
24 referencing requirements and work completed under the
25 Administrative Order on Consent, which is an

1 enforceable agreement signed in September 2015,
2 probably the most complete source would be on EPA's Red
3 Hill site, which, again, if you just Google "EPA" and
4 "Red Hill," it will take you right there.

5 So I'm just going to turn this back over to the
6 Chair. That's all I have for now. Thank you.

7 COMMITTEE CHAIR: Thank you, Thu.

8 Next on the agenda is actually two of the
9 items, 5 and 6, which will be presented by the Navy.
10 The first will be Admiral Rob Chadwick followed by
11 Captain Marc Delao.

12 REAR ADM. CHADWICK: All right. Well, good
13 morning, and I'll also shortly be turning over to
14 Captain Delao, who will be giving a more detailed brief
15 to you, but as this is my first time in this forum, I
16 certainly wanted to introduce myself. I'm Rear Admiral
17 Chadwick, and I relieved Rear Admiral Brian Fort as
18 Commander Navy Region Hawaii back in June.

19 And I wanted to take this opportunity this
20 morning to highlight the partnership that was formed
21 under the Administrative Order on Consent between the
22 Navy, Defense Logistics Agency, the State Department of
23 Health as well as the EPA. The AOC certainly
24 facilitates open and transparent discussions and also
25 supports the shared goals of all stakeholders in

1 protecting national security, protecting the
2 environment, and protecting our drinking water. And in
3 support of those goals, I can assure you that the
4 Department of Defense is investing significantly,
5 ensuring that we're operating the Red Hill fuel
6 facility safely.

7 Just in the last five years, the Department has
8 spent \$162 million in support of that effort. And then
9 in the next five years, the Department is expected to
10 spend nearly -- actually over a quarter of a billion to
11 continue to modernize and upgrade the facility to make
12 it even safer.

13 The Red Hill fuel facility is a critical
14 national security asset. It provides the daily fuel
15 requirements here in Hawaii for our Navy, Air Force and
16 Hawaii National Guard, and it also provides the
17 strategic reserves for our joint forces throughout the
18 Indo-Pacific theater. And this is at a time when our
19 potential adversaries around the world continue to be
20 more and more aggressive.

21 I think it's also significant to point out that
22 in addition to being a national security asset, Red
23 Hill also serves as a safety net for the State of
24 Hawaii. In the event of a natural disaster or any
25 other contingency that would result in long-term

1 electrical outage on the island, Red Hill is the only
2 source and could provide fuel, based on its gravity-fed
3 design to the Daniel K. Inouye International Airport,
4 the port of Hawaii, as well as some of our
5 electricity-generating facilities. The bottom line is,
6 the Navy is committed to operating the Red Hill fuel
7 facility safely, and continue to invest to make it
8 safer.

9 Now, I will admit that this is my first tour in
10 Hawaii in my career. But many years ago, when I was a
11 midshipman at the Naval Academy, I came home to Hawaii,
12 because my dad actually had this job 30 years ago, and
13 I'm actually living back in the house that I came home
14 to in college. So my family's ties to Hawaii go back
15 over three decades. And I think that really speaks to
16 the generations and generations of military families
17 that have called Hawaii home.

18 And as the current Region Commander, I can tell
19 you that the safety, well-being and access to clean
20 water for the current generation of military families,
21 including my wife and daughters, as well as all the
22 residents of Hawaii, is a top priority for me. And I
23 can also assure you that it is a top priority for
24 everyone who is involved in the management, operation
25 and maintenance of the Red Hill fuel facility.

1 Mahalo, and now I'll turn it to over to
2 Captain Delao, who will give a much detailed briefing.
3 Thank you.

4 COMMITTEE CHAIR: Before we go into Captain Delao's
5 presentation, unless you want to have a neck strain,
6 can I ask the Task Force members to have a seat either
7 in the first row or anywhere in the audience so that
8 you can watch the presentation slides? So we'll take a
9 minute or so.

10 CAPT. DELAO: I think, Task Force, I think we're
11 situated. I will do my best up here with the tether,
12 and if becomes too onerous, I may just project from the
13 dais. But, again, my name is Captain Marc Delao. I'm
14 from NAVFAC Hawaii. I'm also Admiral Chadwick's
15 Regional Engineer, and this is my second time,
16 addressing the Task Force last year. The 1st of
17 November, I provided the update from the Navy. And so
18 I'm back a year later to give you updates on our
19 underground storage tank systems, and so without
20 further ado, let's just go ahead and go into the
21 presentation.

22 I'll sort of give you a preamble, about
23 20 slides, pictures, words. I'm going to talk you
24 through, obviously, the voiceover and give you sort of
25 the gist of what we'd like you to take away, and then,

1 of course, we look forward to the questions and the
2 commentary subsequent to the pitch that I provide.

3 Okay. So, as Keith indicated, we covered down
4 on all the system to include systems that are out of
5 commission or that are being decommissioned. So this
6 slide simply details the various systems that are under
7 my charge that I will be speaking to, this morning, the
8 first system, and I provided a slide for each of these
9 systems. When we get to, obviously, Red Hill, numerous
10 sides, so we'll sort of talk through that, but the
11 first system we are going through decommissioning and
12 then there are two systems at Hickam that we'll speak
13 briefly about, and then as Thu indicated, the two
14 active systems, one at Kauai, PMRF, and then, of
15 course, Red Hill. All right. Next slide.

16 Okay. So this system is part of Joint Base
17 Pearl Harbor-Hickam. You could see the Diesel
18 Purification Plant. It is out of commission. It is in
19 the process of being decommissioned. Key things that I
20 want to point out as I indicated last year, and I think
21 this is most germane, is, obviously it's out of
22 commission but even when it was in commission, it was
23 not on top of the aquifer, and so this slide depicts
24 where that is located in relation to the aquifer. The
25 topic point speak to, are a current contract of

1 removing system components and then eventually getting
2 to a point where it is full-up decommissioned. All
3 right. Next slide.

4 The Hickam Fuel Annexes. So there's two
5 systems that we own that are not in service, and so
6 we've listed them there. And both of them are in
7 various states of being decommissioned and removed,
8 obviously not operational. When they were in service,
9 obviously, they were on top of the aquifer. The map
10 indicates that, but the key takeaway there, is, they
11 are no longer in use. Okay. Next slide.

12 Which brings us to the systems that we continue
13 to use, continue to operate. So this is Kauai. This
14 is PMRF. And, as I briefed last year, very similar in
15 the context of what we were doing there to maintain the
16 systems has not changed. We have a very rigorous
17 inspection, monitoring system as we do for Red Hill.
18 Obviously, this is to a much smaller degree, and so you
19 can see the pictures that I've included, similar to
20 last year, that show indications of our upkeep of the
21 system. And then, of course, the key takeaway in
22 relation to the beautiful island of Kauai, where the
23 system exists in relation to the aquifer, and so,
24 obviously, no change there. Next slide.

25 Okay. So we will pause for a second, and

1 obviously the key, the meat of the matter that, as we
2 talked about last year and we will talk about this
3 year, is Red Hill. Okay? And so my job this morning
4 for the Committee and for everybody in the audience is
5 to give you an update on what we have done, what we are
6 doing, and where we are going in relation to the AOC.

7 And as the Admiral indicated, we are staunch
8 supporters of the AOC and how that works and our
9 submission to regulators, EPA, Department of Health.
10 In the year that I've been in this job, I have seen
11 much goodness in how that dynamic works and the
12 relationships that we have fostered in being regulated.
13 Okay? So, again, my job this morning is to walk you
14 through what we've done, where we're going, and how
15 that AOC is working. All right. Next slide.

16 So this slide, like last year, the first thing
17 I cover is what we have done in the year prior, okay?
18 So as we go from 1 November to today, these are the
19 items that I would like to report to the Committee and
20 to the audience as completed items in regard to Red
21 Hill and the AOC. Okay? So I'm not going to read
22 through them all, but I will hit some highlights.

23 QRVA, we did submit that back in May. And
24 subsequent to that, September of '19, we received
25 conditional approval from the regulators, okay? So

1 those are the first two bullets in regard to what we
2 have done as part of the AOC.

3 Also last year, or this last year, we did the
4 submittal of the coupon testing results report that was
5 submitted back in July. We've also done updates on
6 Groundwater Conceptual Site Modeling, that was done
7 back in July. We have installed two additional
8 monitoring wells. And I'll talk a little bit more
9 about the monitoring well system, not just what we did
10 this last year, but what we are doing currently, and
11 where our future vision has for monitoring wells around
12 the Red Hill Fuel Facility. But for the last year we
13 did Monitoring Wells 14 and 15, completed March and
14 August of '19, respectively.

15 And then, of course, I would say that the big
16 administrative item, really, a culmination of a lot of
17 collaboration, a lot of work, was the submission of our
18 Tank Upgrade Alternatives Decision Document, along with
19 the Release Detection Decision Documents, and that was
20 September 9th of this year. Okay? So these detail the
21 major items that we have accomplished under the AOC
22 since the last time I addressed this group.

23 All right. Next side, please. So let's talk a
24 little bit about ongoing work. Okay. So ongoing work,
25 again, under the framework of the AOC, things that I

1 want to highlight to the Committee and to the audience
2 is our ongoing semi-annual tank tightness testing. And
3 what I will say there, and I'll hit this again in a
4 subsequent slide, is that this last year we shifted
5 from doing annual tank tightness testing to
6 semi-annual. So we do it every six months, and that is
7 above and beyond what is required of us by the State,
8 but, in good faith and as an engineer, a prudent
9 engineering practice, we have shifted to that.

10 And what I want to report is, although not
11 stated on the slide, but this is fact, we did the last
12 round of tank tightness testing back in June of this
13 year, and just this week we started the next salvo of
14 tank tightness testing. Okay? So I want to report
15 that and make sure that we all understand how we're
16 doing that, and I would say as an engineer, that is
17 very important feature of our system of systems that I
18 will talk more about. Okay? But that is ongoing.

19 Also ongoing is updating the groundwater
20 conceptual site model. And I will say, that is an
21 ongoing dynamic process that is very collaborative,
22 very interactive in nature. And so as I look at the
23 audience and I look at especially the front row, but
24 also some folks out in the back rows, various entities
25 that are helping us in that modeling effort. Okay?

1 And so that is ongoing. And as we get more
2 information, more math, more science, more engineering,
3 more geology, that will be a continuing process that is
4 all part of AOC.

5 Also ongoing, the installation of the
6 Monitoring Wells 12 and 13. So those are under
7 construction, underway. And so the network that we
8 have there, prior to 2014, we had eight monitoring
9 wells. We currently have 15, and we have a vision for
10 having 23. Okay? And so that is important to
11 understand in terms of understanding the sampling, the
12 monitoring, and really being forward leading in
13 understanding what we're doing there. Okay.

14 And so as I reported in the previous slide, two
15 that were done this last reporting cycle, two underway,
16 and then, again, pushing through a network of 23
17 monitoring wells.

18 We also, and I sort of alluded to this a little
19 bit, in terms of the partnerships that we share, with
20 those that share equities in making sure that the
21 aquifer is protected, the groundwater is safe to drink,
22 and that is the groundwater modeling. And what I've
23 listed in this bullet here, are some of the entities
24 that are helping us. That we meet as part of a working
25 group to do this modeling, to understand the hydrology,

1 the geology. And those partners include the Board of
2 Water Supply, University of Hawaii, USGS, Department of
3 Health, EPA, of course, regulators and others. Okay?
4 But this is, I would say, of the various aspects of
5 what we're doing, probably the most science and
6 engineering intensive understanding the conditions up
7 there on the ridge, and below the surface and how the
8 groundwater moves, migrates and flows, and so that is
9 an ongoing process.

10 And then, really, the last litany of bullets
11 here speak to the sampling, testing, corroborations,
12 substantiation of the water quality, be it groundwater
13 or be it drinking water. Okay? And so this is
14 ongoing. And you could see its layer. It's very
15 comprehensive. It's very collaborative.

16 This annual split sampling, and I briefed this
17 in the past, is where we take samples and we send them
18 to a lab and then we send the samples to the EPA. They
19 do the lab analysis, and we corroborate and we
20 substantiate to make sure that everything is copacetic.

21 And so it is a layered approach to ensuring
22 that we know what we are getting with the sampling and
23 that there is quality control, quality assurance, and
24 additional quality assurance. And so that is ongoing.
25 And that is also a good segue to this bracket, albeit

1 it's a little bit blurry and hard to read on the left
2 side of this slide, and that is my consumer confidence
3 report, my consumer confidence report that I submit,
4 that I send out to my consumers, of drinking water from
5 the Waiawa water shaft, the Red Hill water shaft, and
6 the Halawa water shaft, right? So, obviously, vested
7 interest in ensuring that drinking water is pristine.

8 And I speak from the experience of being a
9 purveyor, and this is NAVFAC Hawaii, part of my job,
10 providing drinking water to thousands of military
11 families, to include my own family. And so this is
12 just like a municipal water supply or a municipal water
13 source, we do a consumer confidence report on an annual
14 basis.

15 I did the same thing, and I just wanted to
16 highlight that in the context of what we're talking
17 about, this morning, and, again, to really emphasize my
18 personal vested interest, but then, more importantly,
19 the team. Right? Navy, DLA working on ensuring that
20 the aquifer is protected and that the quality of the
21 groundwater and the drinking water is absolutely
22 pristine. And so that is ongoing work.

23 Next, please. This is a graphic, a very
24 busy -- I briefed it last year. And for those that are
25 doing Red Hill AOC work on a routine basis, you're very

1 familiar with this, but it gives you a good sense for
2 the geography, right? So these black dots represent
3 the in-ground storage tanks. This green, albeit hard
4 to read, represents the water shaft that I was talking
5 about. That is a water draw point that I have folks
6 that work in -- in -- sort of pull the water out of the
7 shaft and send it through the water system that, again,
8 provides drinking water to thousands of military
9 families.

10 I show this slide to show the close proximity
11 of that drinking source, that is Navy's drinking water,
12 providing drinking water to Joint Base Pearl
13 Harbor-Hickam and some other customers. The fuel farm.
14 And then the other dots that sort of go around the fuel
15 farm represent those sampling points that I spoke of.
16 Okay? I like to show this to give a sense for, yes,
17 the infrastructure; yes, the tanks; yes, the system,
18 but also the water, and, again, my intrinsic interest
19 in professional fervor in ensuring that everything is
20 done correctly. Okay?

21 So again, the system, right here, the tanks,
22 that very water supply that I provided the consumer
23 report on, about a half a mile away. Okay? And then,
24 of course, the sampling points around, okay? And so
25 that is part of that ongoing work.

1 Now, this also allows me to tell a little bit
2 of a sea story, just a little one. Earlier this year,
3 March of this year, not to bore you with, you know,
4 sort of water purveying minutiae, but the Waiawa water
5 shaft that is up in Pearl City is most of our water
6 supply. Typically, 80 percent of our water comes from
7 the Waiawa water shaft.

8 And so back in March, we had a massive water
9 main break, 42-inch water main break over by Home
10 Depot, Pearl City. And so that, that left that water
11 shaft sort of out of commission for a good two-week
12 period, right? As we were doing emergent repairs 24/7.
13 And several people out there met me there at the site
14 as we sort of worked through that, and it was a very
15 big deal, obviously, for the Navy.

16 But the sea story was -- is, during that
17 duration, I shifted operations exclusively to the Red
18 Hill shaft. And although we implemented significant
19 conservation efforts to draw down the consumption
20 across the entire Joint Base domain, the actual draw
21 from that water shaft, which is typically 2 million
22 gallons a day, at the peak was 8 million gallons for
23 one day. And for about a two-week duration, we were
24 drawing between 4 to 6 million gallons out of this
25 water shaft as we were doing the repairs to Waiawa.

1 Okay?

2 So I highlight that, again, just to sort of
3 draw the connection between the purveyance of pristine
4 drinking water to the military community, to the
5 civilian community, and the importance of making sure
6 that we understand this area. Okay? So that was just
7 this year. Next slide.

8 Update on actions that we'll be doing over the
9 next year. Okay? So this is the projecting ahead,
10 and, again, under the AOC, what next, okay? And so
11 things that I want to highlight to the Committee and to
12 the audience, and we'll sort of go through it very
13 quickly.

14 The strategic fuel storage/distribution
15 analysis study, this is something that we have talked
16 about in the past. And so we are pretty close.
17 December time frame, we should be seeing results on
18 that. And so what does that mean in the context of Red
19 Hill and preserving and protecting the water. Well,
20 this is going to inform and influence and give us some
21 insight as to requirement. Fuel requirement and sort
22 of that site picture that we've talked about for the
23 last year, as a group, understanding sort of the
24 future. Right? The future of the strategic importance
25 that the Admiral was talking about, and how that

1 relates to this infrastructure. Okay? So we should be
2 seeing that in the next couple of months.

3 Other things that we'll be doing over the next
4 year, the Tank Upgrade Alternative and Release
5 Detection Decision Document that was submitted, again,
6 September. We will be working with the regulators,
7 EPA/DOH, obviously. And so there will be a review and
8 a comment period. I've got a slide that sort of
9 graphically shows you about the general process. Okay?
10 But this bullet speaks that next step, if you will, now
11 that we have submitted our homework, if you will, in
12 sort of the subsequent steps that go to that.

13 We will be working through the coupons, the
14 Destructive Testing Results Report Acceptance. Okay?
15 So that will be a document, some work that we'll be
16 doing.

17 We will be doing continued long-term quarterly
18 groundwater monitoring. And, again, that working group
19 of understanding the hydrology. And then, of course,
20 we will continue to do the monthly soil vapor
21 monitoring. Okay? And we'll also be looking at
22 continuous soil vapor monitoring, and so I'll talk a
23 little bit more about that.

24 And then Investigation and Remediation of
25 Releases Report. Installation of additional monitoring

1 wells. As I said, again, that vision of pushing to
2 '23. And then, as I had indicated, the new normal, the
3 new paradigm for Tank Tightness Testing, we will
4 continue to do it on a semi-annual basis, every six
5 months.

6 And then the last bullet, and this is included
7 in the Tank Upgrade Alternative Decision Document, we
8 have committed to doing some planning, coordination,
9 engineering, documentation, right? This is in support
10 of construction for a water treatment plant, okay? And
11 so we'll talk a little bit more about that. But as the
12 Regional Engineer, and you can sort of appreciate this,
13 that anything that is brick-and-mortar construction or
14 something that's going to be done or contemplated to be
15 done in the future requires upfront work. And so that,
16 that upfront work, the future is now. And so that is
17 something that, as a Regional Engineer, my team is
18 already looking at and sort of progressing on it. All
19 right. Next slide.

20 As I said, this is for the audience and for
21 those, you know, sort of a primer on the Tank Upgrade
22 Alternative process. Now that we've submitted the
23 Decision Document, this was all, you know, behind us,
24 and so the star is sort of where we are in this very,
25 very rudimentary depiction of the process. And so we

1 have submitted our input. And this block, up here,
2 that speaks to the public meeting, that was two days
3 ago. Right? So right on the heels of that.

4 And so, really, where we are is the yellow
5 arrow and the bubble above it, working with the
6 regulators in terms of their review, their review of
7 what we have submitted, and then also working on a
8 public meeting and an opportunity for comments. Okay?
9 So this is not really Navy work. We support it,
10 obviously. And you will probably see me providing, you
11 know, a presentation or information when we get to that
12 point.

13 But what I want to highlight is, again, working
14 with the regulators. That is the next step. And in
15 full support, we will provide that information and
16 provide that opportunity with the EPA and DOH to have
17 the public meeting and comments in support of what
18 we've submitted. Okay? And then, of course, it pushes
19 to the right. And not to bore you with details, but,
20 ultimately, all of this work culminates with a brief
21 briefing back in D.C. to Congress, and that's sort of
22 codified in the AOC.

23 And then, really, the last thing I want to
24 spell out is the statement down at the bottom of the
25 asterisk, which is part of the AOC calls for this being

1 done on a five-year basis. So we are in the throes of
2 this iteration, and it is a dynamic process that
3 repeats itself every five years and gives us an
4 opportunity to look at the best applicable, practicable
5 technology as that is evolving. Hold that thought.
6 Hold that thought. Best applicable, practicable
7 technology as that evolves. Okay. Next slide.

8 This slide, if you were at the public meeting,
9 this was one of the poster boards that we presented,
10 and this is our summary synopsis, executive summary, if
11 you will, of what is contained in the Tank Upgrade
12 Alternative Decision Document, and it is much
13 condensed, much boiled down. The actual document that
14 we submitted, in excess of 200 pages, there's a good
15 five-page executive summary that spells out what's in
16 that document. This is a further distillation,
17 condensing of that, and a graphical depiction of how we
18 laid out, what we laid out in the Tank Upgrade
19 Alternative Decision Document.

20 So we sort of binned our proposal, and the
21 actions that we are proposing in this sort of three
22 categories of prevention, detection, mitigation, and
23 each of those bins has various attributes and aspects
24 that we have proposed, okay? And so I'll just hit some
25 highlights.

1 The prevention, clean, inspect, repair of the
2 tanks. Continuing to lean forward on new technologies,
3 better ways of doing that, more reliable, et cetera,
4 et cetera, a commitment to do exactly that. Okay? So
5 that's sort of covered there.

6 The coatings, and I'll talk a little bit more
7 about coatings later on. Looking at that, and what is
8 the art of the possible. What is out there. What
9 would work. And we've got folks in California that are
10 part of the Navy, part of NAVFAC, already looking at
11 some of that. Looking at some of these applications
12 and what could work, so that we could potentially use
13 those, going forward. Okay? So that's part of it.

14 Decommissioning of nozzles. And this is very
15 mechanical and very simple. But it is a risk area that
16 we've ascertained really through the QRVA, that is a
17 huge mitigation of risk by removing one nozzle, one of
18 two nozzles from each of the tanks. Okay? So we're
19 committing to that, and so we'll be doing that.

20 Quals. for the contractors doing the work in
21 our tanks, so there's continued work there. Some
22 standardized operating procedures, et cetera. So it is
23 taking the bar for operations in sort of the QA/QC that
24 we do now, taking it to the next level.

25 All right. In the detection bin, continuous

1 soil vapor monitoring. So let me just pause there. We
2 do monthly now, right? Each tank that's got a system,
3 we draw an air sample. We could sort of see what's
4 under the tank, at different points under the tank.
5 And that gives us good insight. All right? It gives
6 us good inference in terms of, okay, is something
7 coming out of the tank or is everything as it should
8 be. And so that is done on a monthly bases. We get
9 data points.

10 This proposal is installing systems that allow
11 us to do that on a continuous basis. Starting out with
12 a pilot, one tank, understanding that. And I will say,
13 I've had discussions with U.H., Dr. Thomas, who's part
14 of our working group on this idea and how we would
15 approach it. Okay? And so we've committed in the Tank
16 Upgrade Alternative Decision Document to pursue that as
17 an upgrade to technology and monitoring that we're
18 already using to give us more information, more
19 insight, more assurance. Okay? So that, that is
20 contained in our Tank Upgrade Alternative Decision
21 Document.

22 Some inspection insights. Installing permanent
23 enhanced leak detection systems in each tank. And so
24 quite a bit of work and investment that's going to be
25 done to each tank, to provide continuous monitoring --

1 continuous monitoring.

2 And then I've already spoken about increased
3 tank tightness testing, the fuel inventory monitoring
4 system and going with the high end there, making sure
5 that we understand exactly the condition of each tank
6 and the volumes and potential movements of fuel as
7 you're taking on fuel, as it's being dispensed, and
8 just in daily operations, okay? So investments there
9 to have greater visibility and granularity there. And
10 then I've already spoken about groundwater monitoring
11 and pushing to that 23 monitoring points. So, again,
12 that's in the document that we have submitted.

13 And then the mitigation area, two things there.
14 Water treatment plant. Again, committing to that
15 planning, understanding, brick-and-mortar. It is
16 granular, activated carbon system that we're looking at
17 and sort of understanding, okay, what would the
18 capacity be; where would it be; where would it be
19 sited; how would you pipe water from the collection
20 zone to the plant, those types of things, committing to
21 doing that now. Moving out with those actions of
22 understanding how that would work. And then release
23 detection procedures and sort of continues improvement
24 in that slide. All right. Next slide.

25 And now we transition to a few slides on

1 technology innovation. And I think I would be remiss
2 if I did not cast this vision, especially for the
3 Committee but also for the audience, in terms of 2019,
4 technology evolving. So how is the Navy pursuing that?
5 How is the Navy pursuing that?

6 And I'm very proud of my team in the last year,
7 of us reaching out and sort of, whether it's academia,
8 whether it's industry, whether it's the regulators,
9 whether it's other services, in collaboration to see
10 what is out there that could help us enhance the
11 actions that we are already doing to further our
12 commitment to protecting the aquifer, safeguarding the
13 water, running the facility efficiently.

14 And so the next few slides just give a little
15 sound bite, a little bit of a snippet to those actions
16 and what we are doing. What we are doing. Okay? So,
17 one, two, three, four. And this is just a
18 representative sample, but robotic crawler
19 demonstration. We've had industry come in and do some
20 testing and do some test runs in Tank 19. Okay? And
21 this picture goes back a few months of industry doing
22 exactly that.

23 Do we have a solution there? We do not. Do we
24 have a vector on something that we could potentially
25 use? I believe we do. And I believe we have

1 industry's interest in understanding this situation and
2 how these technologies, which are already being used
3 extensively, how they could be used in this
4 application.

5 The sources sought notification, that really
6 is, allow me to interpret that a little bit. That's
7 more from a contracting standpoint, having contractors
8 come in and take a look at one of our tanks. And last
9 year, I sort of gave you a sense for how we do clean,
10 inspect, repair, that challenge, right? That challenge
11 of doing the inspection inside the tank and doing the
12 repairs inside the tank. So how can we do that better?
13 How can we do it more efficiently?

14 And so, hey, industry, come in and give us your
15 ideas as opposed to government, you know, dictating, do
16 it this way or, you know, continue to do it the way
17 that we've done it. What are ways that you, industry,
18 driven by capitalism and efficiency, getting in,
19 getting out, doing a good job, repeat business,
20 et cetera, et cetera, et cetera, what would you
21 propose?

22 And so we're having those discussions, those
23 inputs, to be able to look at how we do what we're
24 doing now, even better. Okay? So that's the sources
25 sought notification.

1 We had an industry day, back in June. And that
2 was done at Hickam. And that was, again, the
3 engineering entity that I mentioned, in California,
4 they had flew out here, they hosted it. And industry,
5 contractors, academia, they showed up, and it was
6 informational, but it was also, what do you propose?
7 And it was a little bit of an eye-opener for a lot of
8 folks. Right? In terms of, hey, this facility is
9 massive. One of a kind. Absolutely one of a kind.

10 But industry and the innovation that industry
11 exhibits in America, day in and day out, very
12 impressive. Folks doing their homework, coming in and
13 pitching and presenting coating applications, robotic
14 applications, different ways of doing contracting,
15 different ways to approach this.

16 And, again, that's all in the auspice of a
17 sound system today, but a commitment to make it even
18 better tomorrow. And so that is sort of what we're
19 looking at on a routine basis with these industry days.

20 And then the drone presentation, the picture
21 there is really a different application, but the idea
22 is, just like with robotics, where you can very
23 efficiently take a look at the liner of a tank, drones
24 and, of course, drone applications are prevalent in a
25 lot of different industries now. How can that be used

1 in this industry, and what are the ideas that industry
2 would propose to the Navy. All right. Next slide.

3 Okay. I'm going to walk through this rather
4 quickly. This is a slide that was presented yesterday
5 to Pac. Fleet by NAVFAC, the Expeditionary Warfare
6 Center, again, that's that lab entity organization in
7 California. And this really was to let Pac. Fleet know
8 sort of where we're going with some of this stuff. And
9 I thought it was a good slide to very succinctly and
10 efficiently show you some of the ideas that we are
11 exploring. And I'm pretty excited about where some of
12 this is going. All right?

13 So if you could just sort of click through.
14 There is some animation. Go ahead. Just keep going.
15 So this is a depiction, obviously, of one of the tanks.
16 Basalt, concrete, steel liner. And click it about two
17 more times. One more. Okay.

18 So these are really just sort of a depiction of
19 the different ideas that we're looking at. All right?
20 So from the top, you could see that's robotics. The
21 second one down is drones.

22 This, right here, without a voice-over, you
23 would never guess it, but these are applications of
24 coat spray, coatings. And so we're looking at some of
25 those, whether it's a liquid metal application or a

1 cement-type application. But just different ways to go
2 into the tank, fortify structure, provide additional
3 coating, protection, et cetera. You know, what is the
4 art of the possible. And these are things that are
5 already being looked at in California.

6 The next picture is scaffolding, and it's very
7 simplistic, but it's come up several times. And last
8 year, you heard me explain, and you'll see a picture
9 this year, of how we currently do the clean, inspect,
10 repair, scaffolding, very meticulous, very tedious.
11 Okay? So industry is -- you know, several contractors
12 have suggested, hey, it's very simple in nature, but I
13 mean the scaffolding application, certainly for
14 high-rise construction and those types of repair-type
15 endeavors, why not look at something like that here,
16 and the efficiencies that you may bear from that.
17 Okay? So we're looking at some of that.

18 And then the last picture is liners, and,
19 really, sort of the next generation of secondary
20 containment technologies, if you will. All right? And
21 I'm not going to belabor this too much. But I will
22 share with you some work that we've done a little bit,
23 in terms of sending scientists and engineers out to
24 Cheyenne Mountain in Colorado, and understanding that
25 system and how they are using water bladder technology

1 to sort of create barriers, and just a different
2 approach to it. And just understanding, okay, is there
3 applicability there for us.

4 And this is transparency. This is absolute
5 sharing with you our commitment to understanding not
6 just the problems set here on the island, but
7 applications across the globe and networking to
8 solutions, ideas, concepts that could benefit all of us
9 and further that commitment to what we've already
10 stated numerous times, safeguarding the water,
11 protecting the aquifer, making sure that we are doing
12 everything that is possible, best and applicable,
13 practicable technology, employing that as things
14 evolve, and that we are sensitive and we have an eye to
15 that. All right. Next slide.

16 Permits. So very quickly on this. And this
17 slide just sort of provides a summary on the permitting
18 process. And this is Marc Delao preempting what I
19 thought was going to be a question or two. And so what
20 I want to highlight here, is that, yours truly, on-time
21 submission of the operation permit for Red Hill and
22 also for PMRF.

23 And so we have submitted the permit. The
24 application is currently under review, and we have an
25 Authority to Operate letter and provided sort of the

1 picture there on the left, from DOH. And that dates
2 back to 16 July, giving us authority to operate the
3 system as review of the permit is being done. Okay?
4 So that's that slide. Next.

5 Clean, inspect, repair. And so I'm not going
6 to belabor this. Last year, I went into excruciating
7 detail on this, too. I'm going to explain the process.
8 You could see the picture, the scaffolding, the current
9 process of going in there, scanning the liner,
10 understanding where we have issues and then going and
11 doing the repairs. And so this is a summary of where
12 we are. This is a maintenance review. All right?

13 So, currently, we have Tanks 5, 13, 17 that are
14 in the clean, inspect, repair process. Tank 5, next
15 year, plans to bring it back online, Tank 5. Tank 14,
16 awaiting contract mod award before continuing
17 construction. Tank 4 is the next one in the cycle, but
18 we're going to do a slot there to Tank 18. And so this
19 is what we have in store. Next slide.

20 So, to summarize, the commitment remains to the
21 water. Right? And making sure that we have both
22 groundwater and drinking water. That we have done
23 everything and we continue to do everything to ensure
24 that that is pristine, where it needs to be. The tanks
25 continue to pass semi-annual testing, right? And that

1 was just this year that we shifted to semi-annual
2 testing. They continue to pass. Absolutely no issues.
3 We submitted our Tank Upgrade Alternative Decision
4 Document back in September. I walked you through sort
5 of where we are in that process and how we are going to
6 continue to support that.

7 And then the last thing I'd like to comment on
8 is sort of back to my opening comment. The AOC, we are
9 firm staunch believers in the AOC, supporters of it.
10 Okay? And as I look at the front row and the
11 regulation of EPA, DOH, that interaction, that
12 collaboration, that discussion, how we are regulated,
13 our submission to the regulation, I am fully committed,
14 my team is fully committed. And so as we look forward,
15 that commitment does not waver or wane. And I think
16 it's proven itself, at least in my tenure, to be very
17 beneficiary, very helpful. Okay? Last slide.

18 This is my "get off the stage" slide,
19 literally, and it will sort of take questions and
20 commentary. Back to the Tank Upgrade Alternative
21 Decision Document. As you read that, it's an executive
22 summary. It's certainly threaded throughout the whole
23 document, that this is the commitment that the Navy is
24 making in that submission. Okay? And I've had several
25 conversations internal to the Navy that reinforces this

1 at all levels. At all levels within the U.S. Navy.
2 And that is, finding a secondary containment solution,
3 applicable, practicable. And if that cannot be
4 achieved, moving off the aquifer 2045 time frame. That
5 is in the decision document.

6 Which goes back to why, the year that I've been
7 here in this position, innovation, evolving
8 technologies, understanding what is out there or what
9 is emerging out there, so that we can jump on that
10 immediately, as a best and applicable, practicable
11 technology. Okay?

12 So that is the final slide, right there. And I
13 appreciate your attention, and I will take any and all
14 questions. I've got the Navy team here, and I look
15 forward to that. Thank you.

16 COMMITTEE CHAIR: Task members, can you stay there?

17 Thank you, Captain Delao.. The last item on the
18 Agenda No. 6 is the regulatory overview and oversight.
19 And I have my DOH technical staff to expand or correct
20 me if I give a wrong update, but just a quick overview
21 from the DOH, and I'll let Steve and his gang add on to
22 the item. But as far as the Navy submissions that
23 Captain Delao mentioned, we are in the process of
24 reviewing all of those documents at various stages. So
25 we are accepting public comments. And, as you see in

1 the front area, there's areas where you can provide
2 comments or go to the website, so you can look at the
3 documents as well as provide written comments.

4 Regarding the investigation, remediation or
5 releases report as well as the groundwater flow model
6 report, the regulators did grant a ten-month extension.
7 I'll have that report until October of this year, this
8 month, so that the deliverables can address some of our
9 concerns and comments, as we're not in some agreement
10 with the Navy's interpretation of data. Since that
11 point, we've also issued several letters during that
12 time, documenting our expectations for the upcoming
13 deliverables.

14 We are reviewing the Navy's current request to
15 add an extension of another five months, since the
16 recent software issues that they have encountered right
17 now. As far as Quantitative Risk and Vulnerability
18 Assessment report, the QRVA, we are waiting the Navy's
19 revised scope regarding the Phases 2, 3, 4. And these
20 are more progressive potential hazards that could
21 occur; for example, like floods, seismic and other
22 types of more external events.

23 Regarding the corrosion, groundwater and
24 conceptual site model and the Tank Upgrade, the TUA
25 report, we are, like I mentioned, in review of all of

1 these documents. We're reviewing it simultaneously,
2 'cause lot of these supporting documents do impact upon
3 the Tank Upgrade report and recommendation.

4 Like I mentioned before, we have copies of fact
5 sheets, the EPA fact sheets, as well as our press
6 release for requesting comments from the public. We do
7 intend to have a public hearing on the TUA report, Tank
8 Upgrade Alternatives report, next month, and we'll
9 provide you probably with at least a two-week notice
10 before that meeting is set up.

11 Steve Linder, if you want to add anything more
12 or your staff want to add anything more to that, the
13 update.

14 MR. LINDER: I think that covers the staff.

15 COMMITTEE CHAIR: Okay.

16 MR. LINDER: Thank you.

17 COMMITTEE CHAIR: The task members can go back to
18 your frontal position.

19 I'm going to be positioned here, so that I can
20 see all of you, 'cause I don't have that great of a
21 peripheral vision. Going into Agenda 7, which is the
22 Task Force discussion on what you heard or what you
23 read about up to now from the previous year. So we've
24 kind of opened up to the Task Force members. Like I
25 said, the Navy is here to answer any questions, or the

1 regulatory agency staff is here to answer any
2 questions. So we'll open up to the Task Force members,
3 if they have any questions or comments.

4 Mr. Lau?

5 MR. LAU: Thank you, Mr. Kawaoka. Captain Delao,
6 thank you for the presentation. Could you bring the
7 presentation back up, please, your PowerPoint? I just
8 had a few questions about the presentation. And I
9 think it will be useful if people saw the slide that I
10 was referring to. Thank you.

11 Can everybody hear me back there? Is this a
12 little better? Thanks. Okay. I'm fighting a cold, so
13 my voice is a bit hoarse here. But can you go to Slide
14 No. 6? Actually, Slide No. 5. I'm sorry. Go to
15 Slide 3, please. And if we could dim the lights in the
16 front here, so folks can see the slides. Thank you.
17 Thank you, Captain.

18 So this is, I understand, is a decommission
19 facility? This is a decommission facility?

20 CAPT. DELAO: It's in the process of being
21 decommissioned.

22 MR. LAU: And in there, I noticed here -- so this
23 is closer to Pearl Harbor. If you go on to, I'm sorry,
24 Slide No. 4. And these two facilities are already out
25 of -- decommissioned or in the process?

1 CAPT. DELAO: Correct.

2 MR. LAU: I noticed in the Kipapa site, which is,
3 it looks like it's located close to Mililani area; is
4 that correct?

5 CAPT. DELAO: It appears so.

6 MR. LAU: Okay. And then the first bullet there,
7 under "Kipapa," "Monitored natural attenuation enhanced
8 with bioventing (currently shutdown)." What is
9 bioventing?

10 CAPT. DELAO: Aaron Poentis?

11 MR. LAU: Can you take the microphone, please, so
12 we can hear you? Yeah, thanks, Aaron.

13 MR. POENTIS: My name is Aaron Poentis, and I work
14 for Captain Delao and Admiral Chadwick as their
15 environmental director. All right. So these two
16 facilities, Waikakalaua and Kipapa, they actually were
17 former Air Force facilities that were turned over for
18 Navy, I guess, monitoring and continuing under the
19 environment restoration, I guess the environmental
20 restoration program that we assumed responsibility upon
21 Joint Base.

22 And so by the time that we took these
23 facilities, they were already out of commission. They
24 were being cleaned up under the, I guess they call it
25 the CERCLA program, under the oversight of the

1 regulatory agencies. And I guess apparently when they
2 were operated, they had some releases. So when you're
3 speaking of bioventing, that is like long-term cleanup
4 through the process of forced air induction to enhance
5 bioremediation of prior releases of fuel from those
6 facilities.

7 MR. LAU: Thank you, Aaron. So they were actually
8 in these two facilities, releases of fuel from the
9 underlying field-constructed tanks?

10 MR. POENTIS: Yeah. That's --

11 MR. LAU: Or --

12 MR. POENTIS: -- well documented.

13 MR. LAU: Or the piping?

14 MR. POENTIS: Yeah. That's well documented. It's
15 under the eye of the Department of Health's HEER
16 office. And I believe, as I had mentioned in the past,
17 we provide these reports to you on a regular basis.

18 MR. LAU: And were these tanks also single-wall
19 tanks?

20 MR. POENTIS: I believe so, but I cannot ascertain
21 for certain. I don't have that information with me,
22 but I do believe they were single-wall tanks.

23 MR. LAU: And they were also built around the
24 1940's vintage?

25 MR. POENTIS: That's correct.

1 MR. LAU: Now, do you remember how much was the
2 estimated releases at Kipapa?

3 MR. POENTIS: I cannot tell you offhand.

4 MR. LAU: Wasn't in the millions of gallons?

5 MR. POENTIS: I cannot tell you offhand. I would
6 have to go back and reference that.

7 MR. LAU: I would appreciate that, and if that
8 could be incorporated into the report.

9 Also, Waikakalaua --

10 MR. POENTIS: Mr. Lau, could I incorporate that as
11 a reference? Because all of that documents are
12 submitted to the regulatory agency. They are part of
13 the public record. That is available through the
14 Department.

15 MR. LAU: Mr. Kawaoka, is there somebody from the
16 HEER office here? Oh, you used to head the HEER
17 office, I remember, for a long time. Is anybody from
18 the HEER office, if they can share the information
19 about the estimated fuel releases at those two
20 facilities?

21 MS. GRANGE: Thank you. I'm Fenix Grange from the
22 Hazard Evaluation and Emergency Response office.

23 MR. LAU: Good morning.

24 MS. GRANGE: Good morning. Our office does oversee
25 these sites. I don't have the exact volumes, but I

1 knew that there were significant volumes at Kipapa, and
2 we have been overseeing that for some time.

3 MR. LAU: When you say "significant," can you give
4 me a range?

5 MS. GRANGE: I did not bring that information. I
6 apologize.

7 MR. LAU: And Waikakalaua also had releases, too?

8 MS. GRANGE: Yes. That one has been closed with no
9 further action. So there's nothing additional needed
10 there. At Kipapa, they will be continuing monitored
11 natural attenuation. There still is methane release at
12 depth in that area. But releases closer to the surface
13 show that there are no risk to human health.

14 MR. LAU: Okay. So -- thank you. These are all
15 1940's vintage tanks and piping?

16 MS. GRANGE: Yes.

17 MR. LAU: Okay. Thank you.

18 Red Hill, I noticed there wasn't a slide that
19 showed the Red Hill facility. I just want to
20 reiterate, and I know the answer to this, that we've
21 always said that the Red Hill facility is also
22 100 percent over the drinking water aquifer.

23 At this point I'll kind of stop, Keith, and let
24 other board members, committee members, if they want to
25 ask questions and I'll wait till later.

1 COMMITTEE CHAIR: Okay. Thank you.

2 MR. LAU: Thank you.

3 COMMITTEE CHAIR: Any other comments or questions?
4 Melanie? By the way, welcome to the Task Force.

5 DR. MELANIE LAU: Thank you. I just introduced
6 myself. I'm Dr. Melanie Lau. And, actually, Steve
7 Onoue was the member of this committee, but he passed
8 away so I am taking his place. That means that I also
9 had to do a whole bunch of homework, like Captain Delao
10 was saying, and I actually went back to the AOC.

11 And so I'm a little confused because the
12 statement of work, the last page, page 16, asked about
13 the Risk and Vulnerability Assessment report. And part
14 of it is a comparison of risks and benefits between the
15 current facility and alternative fuel storage
16 facilities.

17 I remember there was one previous report that
18 there was a map that had, I think, seven sites that
19 were possible alternative sites, but I have not heard
20 anything further on it and you did not present it
21 today. So can you please update me on the alternative
22 sites and why they are not included in the report,
23 including the price and availability of just building
24 new tanks aboveground, is that an alternative? Is that
25 something you're looking into? I also have other

1 questions, but maybe we just stop there.

2 CAPT. DELAO: Yes, ma'am. So the alternative
3 location study, that work was done a few years back,
4 and so we still have that. And in terms of the Tank
5 Upgrade Alternative Decision Document, we looked at the
6 tank upgrade alternatives that had passed and sort of
7 been vetted up to the point of submission. And so one
8 of the alternatives is alternate location, building
9 new. Right? In addition to other location -- or other
10 alternatives within Red Hill.

11 So, to answer your question, that is still
12 something that is in the body of work that we're
13 looking at. But for the submission that we provided
14 and the importance, strategic importance of the
15 infrastructure and other aspects, plus taking into
16 consideration best available, practicable technology,
17 our input was focused on the Red Hill facility.

18 DR. MELANIE LAU: So if this is part of the
19 statement of work, why is it not also part of the
20 ongoing evaluation? Why are we not updated on this
21 now?

22 CAPT. DELAO: So this last year, we've not done
23 much work with that. We have that body of work and we
24 have reviewed it a few times, but the focus has been
25 Red Hill, and, again, just looking at that in the

1 context of the existing footprint.

2 DR. MELANIE LAU: So can we expect alternatives to
3 be promulgated later --

4 CAPT. DELAO: I would say --

5 DR. MELANIE LAU: -- like a year?

6 CAPT. DELAO: I would say, working with the
7 regulators, EPA and DOH, that is definitely part of the
8 body of work, and if in the collaboration of the
9 discussions lead to that or migrating in that
10 direction, then, yes. Yes, ma'am.

11 DR. MELANIE LAU: Can I continue?

12 CAPT. DELAO: Certainly.

13 DR. MELANIE LAU: The other question I have is your
14 last slide, the "And finally." "We are absolutely
15 committed to finding a way to provide secondary
16 containment or we will remove the fuel from Red Hill
17 around 2045."

18 CAPT. DELAO: Correct.

19 DR. MELANIE LAU: As far as I know, reading the AOC
20 again, it was in 2014, 2015, you had a 20-year time
21 limit, or else the fuels had to be removed. So 2014
22 plus 20 is 2034. How did you come up with 2045?

23 CAPT. DELAO: As we were, again, working with the
24 regulators, that was part of the discussion, working
25 with EPA, DOH. And so as we are looking at that again,

1 and as I briefed, understanding the evolving
2 technologies currently, cannot employ something that is
3 practicable, but if it becomes available, then we'll
4 pursue that. But what's the end state, again, working
5 with the regulators, 2045, around 2045 was where we
6 discussed.

7 MR. SHALEV: If I could provide a clarification on
8 the Administrative Order on Consent and the statement
9 of work. So I'm Omer Shalev, I'm the project
10 coordinator for EPA. There's some work that is ongoing
11 and there's some section of the AOC where work is
12 completed and there's no further need for reevaluation.
13 So the Quantitative Risk Assessment and that Risk
14 Assessment section, there is not the mechanism for
15 reevaluation. But for the Tank Upgrade Alternative
16 section, there is the mechanism for evaluation.

17 So if the Navy were to choose, for example, to
18 include that as part of their mechanism for looking at
19 upgrade alternatives, then it would be reevaluated as
20 part of an upgrade alternative. But the Risk and
21 Vulnerability Assessment for the facility is not
22 something that is looked at again and again. So I just
23 wanted to provide that clarification.

24 COMMITTEE CHAIR: Mr. Lau?

25 MR. LAU: I'm really sorry, I just had tons of

1 questions and I really cherish this opportunity to be a
2 part of this committee. But, Melanie, I'm very sorry
3 to hear about Steve's passing. Please accept my
4 condolences. He was a great leader of your community.

5 We've been providing comments on the AOC since
6 it was signed in 2015. And I think, Melanie, you're
7 correct, that there are time lines or deadlines set by
8 the AOC.

9 Now with the Navy submittal, my question is to
10 the Department of Health and the US EPA. Have you
11 amended the time lines and are you granting an
12 extension of actions to be completed by, or the
13 facility relocated? 2045 was never on the table back
14 in 2015. So has there been inner discussions with the
15 Navy, EPA and DOH? Have you basically given them task
16 of approval without officially amending the AOC
17 statement of work or the AOC document?

18 MR. LINDER: So, again, I'm Steve Linder from US
19 EPA. No, there has not been any approval of what's
20 being proposed at this point. The AOC laid out that
21 clear deadline on the time period for study followed by
22 a 20-year upgrade time line. So the deadline in the
23 AOC is, all tanks need to be upgraded to best available
24 technology by 2037, or no longer contain fuel by that
25 point in time. And so that deadline has not changed.

1 But this proposal is proposing some changes, like the
2 2045 date in that proposal. It's something that we are
3 looking at, considering what that means for the overall
4 kind of approach to the improvements and protection of
5 the groundwater at Red Hill.

6 COMMITTEE CHAIR: Regarding the 2045 date, right
7 now, it's the Department's preference to have all fuel
8 removed by 2045, away from the aquifer to another
9 suitable location. Could be either on the island or
10 somewhere else. We're in talks right now, along with
11 EPA and the Navy, about possibly having that achieved
12 as well as looking at alternatives, what's in the TUA
13 itself.

14 But, you're right, Ernie, right now, it's a new
15 line in the sand, I guess, if you will, in terms of,
16 realistically, what can be done, really, in the next
17 25 years. And we realize that the operation of the
18 facility is critical, as well as the systems can't
19 change over overnight, either. So 2045 is the date
20 that's been identified. There's various mechanisms
21 that we can do that through, including rule changes and
22 other mechanisms, but those are sort of in review,
23 right now.

24 MR. LAU: You referenced rules, and those are your
25 administrative rules?

1 COMMITTEE CHAIR: That's correct.

2 MR. LAU: Have those rules actually been adopted?

3 COMMITTEE CHAIR: That's been proposed, but it's
4 not been officially authorized for notification.

5 MR. LAU: So the 2045 is unofficial?

6 COMMITTEE CHAIR: That's the initial initiative,
7 right now.

8 MR. LAU: And the idea is relocate after 2045, shut
9 down and relocate?

10 COMMITTEE CHAIR: That's correct.

11 MR. LAU: When will there be opportunity for the
12 state voters and the public to be able to comment on
13 your administrative rules?

14 COMMITTEE CHAIR: Once that notification is issued
15 to the public, they'll be normal new rule-making
16 procedures, and public and anybody will be able to
17 comment on those.

18 MR. LAU: When do you anticipate that?

19 COMMITTEE CHAIR: I can't give you a specific time
20 table, right now.

21 MR. LAU: I'm a little confused because, also, if
22 you go to Slide No. 15. Yeah, that's the one. That's
23 the letter. Looks like it's a letter -- it's a little
24 hard to read, but it's like a letter from you to
25 Captain Delao, of basically indicating the facility to

1 continue to operating without a permit. I thought
2 there was pressure to, actually by the courts, to
3 actually have you adopt administrative rules and get a
4 permit issued by a deadline of July 15th of this year.
5 Is that correct? Or did I read that wrong? I'm not a
6 lawyer here.

7 COMMITTEE CHAIR: Wade, you want to answer that
8 question? Wade Hargrove? Wade Hargrove is our
9 attorney, deputy attorney general.

10 MR. LAU: Thank you. I'm a little curious. When
11 this letter went out, it was something that we -- and I
12 thank the Navy for sharing it at the community meeting.
13 That's how we kind of learned that this letter had been
14 issued on July 16th, I think one day after the deadline
15 of July 15th. Thank you, Mr. Hargrove. Was there a
16 legal requirement to have a permit issued by July 15th
17 for the facility to continue operation?

18 MR. HARGROVE: My name is Wade Hargrove. I'm a
19 deputy attorney general, and I work with the Department
20 of Health on the Ground Storage Tank Program.

21 MR. LAU: Can you raise the mic? You're a little
22 taller than Keith. Yeah, there.

23 MR. HARGROVE: My name is Wade Hargrove. I'm a
24 deputy attorney general, and I work with Keith and the
25 Department of Health's Underground Storage Tank

1 Program. The Navy submitted an application timely, and
2 the permit application is under review. There's no
3 mechanism to close the facility during the period of
4 time during which the Department of Health is reviewing
5 the merit of the application.

6 MR. LAU: I guess my question was, is there a legal
7 requirement that the permit was supposed to be issued
8 by July 15, 2019, for the facility to continue
9 operating?

10 MR. HARGROVE: There is, but, like I said, the
11 application's been submitted, and the application was
12 submitted on time. So the Department has undertaken
13 the process of reviewing the application.

14 MR. LAU: Was the July 15 deadline based on state
15 law or the judge's order?

16 MR. HARGROVE: The judiciary has nothing to do with
17 this, at this point.

18 MR. LAU: Okay. Where did the July 15 deadline for
19 the issuance of the permit come from?

20 MR. HARGROVE: That's by rule.

21 MR. LAU: And the rules that you adopted a year
22 ago?

23 MR. HARGROVE: That's correct.

24 MR. LAU: Did you amend the rule to allow the
25 extension or provision to allow field-constructed

1 facility to operate --

2 MR. HARGROVE: Well, let me just --

3 MR. LAU: -- without -- without a permit?

4 MR. HARGROVE: Let me just say, I'm not going to
5 engage in a legal discussion, right now, I mean, a
6 debate about what the law says or doesn't say. But
7 what I can tell you is that pursuant to the normal
8 course of issuing permits, once the applicant for a
9 permit has submitted a complete application, so long as
10 that application was submitted timely, the Department's
11 obligation to review that permit, you know, the time
12 shifts to the Department to adequately review -- you
13 know, and, obviously, we're talking about a complicated
14 facility. This isn't a run-of-the-mill underground
15 storage tank facility. So the Department is exercising
16 its discretion to take the time necessary to review the
17 application.

18 But the Navy satisfied its obligation under the
19 law to submit an application on time, and that
20 application was, in fact, complete.

21 MR. LAU: Okay, Mr. Hargrove, I'm a little confused
22 here. I'll let it go at this point.

23 MR. HARGROVE: Well, I mean, I'm happy to pursue
24 this further. I mean maybe we can talk about it at
25 some other time, but I mean, to the best of my ability

1 to explain the situation, once the application is
2 submitted on time, the Department makes a determination
3 that the application is complete, the obligation shifts
4 from the Navy to submit a timely application to the
5 Department of Health to review that application.

6 Again, because of the complexity of the
7 facility and, frankly, because of everyone in this
8 room, there are a lot of stakeholders and there's a lot
9 of interest in this, the Department is exercising its
10 discretion to review the permit methodically, frankly,
11 and carefully. And so, technically, the permit has not
12 been issued yet, but it's on the Department to review
13 it and make sure that -- let me give you an example.

14 If the Department in its review of the
15 application finds that there's some additional
16 information that they deem necessary, they would
17 request that of the Navy. So they're in the process,
18 the Department of Health is technically in that period
19 of time during which it's reviewing the permit, and
20 there's no authority in the law to require the Navy to
21 shut down simply because the Department needs that time
22 to review the permit.

23 MR. LAU: I also understand there was a request for
24 a contested case hearing on the permit. And can you
25 give me a status update of your Department's, the

1 decision on the contested case request?

2 MR. HARGROVE: That's correct. The Sierra Club has
3 requested a contested case to contest the permit. The
4 Department of Health and the Sierra Club are in the
5 process of discussing how to proceed. And that's the
6 most that I can say about that.

7 MR. LAU: And I know what we've officially
8 requested to be informed on this as soon as the
9 decision is made on whether or not to grant the
10 contested case request.

11 MR. HARGROVE: That's correct. The Board of Water
12 Supply submitted a letter to the Department of Health,
13 asking to be informed of any progress and developments
14 in the status of the contested case, or the request for
15 the contested case, and I assure you that Board of
16 Water Supply will be informed of any developments.

17 MR. LAU: I would really appreciate that, and it
18 would be great if we didn't have to find out about this
19 type of letter related to Red Hill from the Department
20 of Health at a Navy community meeting. Because this
21 letter has been out for three months now.

22 MR. HARGROVE: Well, I would just simply suggest
23 that the letter only reflects the reality of the fact
24 that it's an operating military facility. I mean the
25 law does not envision the Department of Health shutting

1 the Navy's facility down while the Department is
2 reviewing the application.

3 MR. LAU: So, Wade, you are suggesting that the law
4 allows the Department discretion?

5 MR. HARGROVE: The law envisions the Department
6 reviewing that application.

7 MR. LAU: Thank you. I'll let others ask
8 questions.

9 COMMITTEE CHAIR: Any other questions by Task Force
10 members?

11 MR. MANUEL: I just had a follow-up. In your
12 administrative rules, is there a time frame required to
13 respond or issue the permit, you know, in terms of the
14 review? I'm piggybacking on what Ernie asked. In your
15 admin. rules, is there a time frame in which a decision
16 needs to be made, permits issued? Sorry.

17 MR. HARGROVE: No. And thank you for the question.
18 That's a good question. The rules do not specify a
19 time frame.

20 MR. MANUEL: Thank you.

21 MR. HARGROVE: And I would add that if that were
22 the case, then, obviously, that would be something that
23 the Department would comply with.

24 MR. MANUEL: Thank you.

25 MR. HARGROVE: Thank you.

1 COMMITTEE CHAIR: Any other questions? Thank you,
2 Task Force members. Let's have a pause here. We're
3 going to go to the next agenda item. There's a
4 question? Mr. Yomes?

5 MR. YOMES: Sort of speaking for the community,
6 what the community actually thinks, and I think, after
7 hearing from a lot of people. We hear permits, we hear
8 laws, and lot of us is out of the loop with all of
9 this, so. I mean it's above our pay grade. One area
10 that the Board of Water Supply's position is to close
11 it down, other agency to close it down. Navy, of
12 course, it's a national security and also helps with
13 the State, in case a safety net needs to be done and
14 matters of emergency, they need to have the fuel to
15 help us out as well.

16 But can these two entities come to a medium for
17 the public and the community? Where all we care about
18 is if the water is safe or not. That's the only
19 question we care about, the community. Is our drinking
20 water going to be safe? Not to close it down. We
21 understand national security. We understand the most
22 important thing that our water needs to be safe. That
23 can be done with these two agencies getting together
24 and doing something positive and agreeing to something,
25 I think the community is satisfied, as long as we know

1 that our drinking water is safe.

2 Can I use this for a second, your glass? I
3 might be stupid, but I just want to bring this up. All
4 of these 20, 20 or maybe 23 different containers for
5 the fuel, is there a way to use precast, precast where
6 it's done somewhere else, with some kind of rubberized
7 or metal or something, lightweight, and you just go
8 right into the tank and provide an extra layer that
9 would be dropped in from the helicopter or whatever, a
10 lighter, thinner type of material? I read here, it
11 says that it's not available, right now.

12 But I'm sure if we can look into something like
13 that, and the Board of Water Supply agrees to that, I
14 think we can come to a happy medium and the community
15 would be much happier and put an end to this bickering
16 back and forth. Thank you.

17 MR. LINDER: Thank you for that question,
18 Mr. Yomes. This is Steve Linder. I'm from US EPA. I
19 want to respond to that. You know, as part of the AOC
20 process, we've had numerous meetings with various
21 industry experts. We, ourselves, hired an industry
22 expert who was the fuel storage tank expert for Chevron
23 for a number of years before he retired. The Navy has
24 brought in experts. We went through some of the
25 earlier documents, will show all the various

1 technologies that were considered.

2 You know, unfortunately, the Red Hill tanks are
3 quite unusual. They're much taller and larger than
4 typically what you see. So a lot of technologies that
5 were designed for, you know, shorter aboveground tanks
6 that have much lower pressure in them can't be used in
7 Red Hill, it just won't work.

8 And so, basically, the whole screening process
9 of screening out technologies, you know, resulted in
10 those six that we looked at as part of the tank upgrade
11 analysis. And, unfortunately, that's kind of where we
12 are today. There isn't really a really easy way to
13 retrofit these, these tanks, with some precast wall or
14 something.

15 You know, one of the challenges with Red Hill
16 is just getting material into these huge tanks. They
17 were built at a time when a number of people were
18 involved. There were a lot of people that were killed
19 in the process of building Red Hill. It was a very
20 dangerous environment. Nowadays people don't do things
21 like that, though. You know, the process of getting in
22 and doing a major project within these tanks is very,
23 very difficult, and that's why I kind of -- we ended up
24 with those, again, six alternatives, which varied
25 drastically in cost and time to implement, you

1 know, time meaning level of effort time, not
2 necessarily duration.

3 So -- and that's where we are today, in terms
4 of what is readily available. I think what we've heard
5 from the Navy is a continuing to look at what else can
6 be done. You know, looking at, you know, other
7 technologies and emerging things and asking companies
8 to come in and see if they have any ideas and, you
9 know. But this is more of a, you know, not proven
10 technology, but were more in the kind of, say, research
11 stage of trying something drastically new at this
12 facility.

13 CAPT. DELAO: If I may, could you go back one
14 slide? I just -- I covered it very quickly. But up at
15 the top right, I didn't really hit on the fact that
16 collaborating with University of Hawaii Applied
17 Research Lab. And so this is recent in terms of
18 extending a hand partnership to the Applied Research
19 Lab, getting the best and brightest from the local,
20 from the local, best and brightest, to start looking at
21 this as not just a Navy issue but a State issue, and
22 rightfully so.

23 And so the last icon down at the bottom sort of
24 presupposes exactly what you're suggesting. We may not
25 have that application today. We may not have that

1 technology or the application of the technology figured
2 out today, but let's try to work to that end. And, you
3 know, the icons above that, those exist, but that sort
4 of tank within a tank, whether it is, you know, cold
5 spray application, a cement application, a ceramic
6 application, I mentioned Cheyenne Mountain and the
7 water bladder application, which, you know, on face
8 value, that may have some merit, but we have to look at
9 it a little bit more.

10 The key being the collaborative working with
11 the university industry to sort of look at that, and,
12 as Steve said, I mean that's 250 feet, you know, in
13 altitude, if you will, and a hundred feet in diameter,
14 I mean that's a unique engineering challenge, but maybe
15 in this collaboration we could sort of figure this out.
16 So I just wanted to highlight that.

17 MR. SHALEV: One other thing is that during our
18 kind of discussion phases in working with our experts,
19 what you mentioned is one particular application that
20 we did look at. There were roughly over, plus or
21 minus, 2,000 different applications that were
22 contemplated, and it just does not seem that the
23 physics of some kind of plastic or bag liner that
24 you're kind of suggesting can physically withstand
25 those kinds of pressures and forces from all of the

1 fuel that would be contained in one of these tanks.

2 So, you know, we contemplated in the
3 administrative order that perhaps those kinds of
4 materials may be available in the future, and so that's
5 why there is this five-year reevaluation. But at this
6 point in time, it does not seem like there is that
7 particular material available to withstand the kind of
8 forces essentially that you would experience in one of
9 these Red Hill tanks.

10 MR. LAU: Thank you for the explanation. So, as
11 far as the container is concerned, it's a no-go. But
12 how about the exterior? How about the outside of these
13 tanks, not specifically outside of the tanks, but
14 outside the perimeter where we can put maybe a blockage
15 from the aquifer and these tanks?

16 MR. LINDER: You know, again, another very unique
17 challenge here. You know, people have come up with
18 ideas like that before, can we put some sort of
19 containment, build something around them, like you see
20 sometimes even around aboveground tanks where they'll
21 put like a berm around that to capture fuel if the tank
22 leaks.

23 And these tanks are mined into the mountain,
24 into basalt rock over a huge area. There's no
25 technology that will allow that kind of, basically make

1 the area, be able to get in there and around these
2 tanks and make the area around these tanks impermeable,
3 but nothing like that exists. I mean that's a big
4 challenge with these tanks.

5 But, again, they are very different than what
6 we typically see in the tanks. I mean there are, you
7 know, huge steel and concrete structures. If you went
8 to the public meeting, there was that cross-section
9 that showed kind of the thicknesses of the concrete and
10 steel and all of that. So, you know, nothing like that
11 exists in other places.

12 I mean the thing that we've come closest to,
13 when we use this as a comparison, is, you know, nuclear
14 waste containment domes. They're closely designed to
15 that. And up in Hanford, Washington, they've had
16 issues with -- something we've been looking at, using
17 that to look at ideas for things like that. But, you
18 know, we're not -- we haven't found a, you know, a
19 simple, you know, readily available solution at this
20 point in time. You know, the best we came up with, at
21 this point, were those six options that were in the TUA
22 study.

23 DR. MELANIE LAU: I have a question. The tanks are
24 over 75 years old when they were made. I'm sure --
25 well, I'm not sure, but I would think they probably

1 didn't know the aquifer was that close. You're right,
2 it is an amazing feat of engineering. You know, that's
3 not disputable. But everything fails, no matter how
4 much upgrading you do, how much inspection you do. So
5 I can understand how the Navy would want to hang on to
6 something that they have. It's wonderful, it's great.

7 However, we only have one aquifer. We've been
8 on an island. We don't have a choice. We can't go
9 anywhere else if we fouled the water. What do we do
10 when we have a hurricane alert? The first thing they
11 tell us is get your water for two weeks for your whole
12 family. So if you contaminate the aquifer, it will go
13 from Moanalua all the way to Hawaii Kai, which includes
14 the University of Hawaii, Waikiki and all the business
15 districts. And how are you going to bring in enough
16 water for that? You know, survivalists tell you, you
17 can live without water for three days. Can we get
18 enough for a million people within three days here?

19 So I think that's the community concern, David
20 and I are kind of trying to represent here. Why can't
21 there not be a compromise to having the tanks just stay
22 where they are and not telling you to just go totally
23 away because you still have to do the fuel needs
24 assessment, right? That's supposed to come out by
25 December, although I thought it was supposed to come

1 out by now already.

2 Anyway, so why can't there be a compromise
3 between the two arms? That maybe move it somewhere
4 aboveground where you already have practical
5 technology. Otherwise, how does Chevron and et cetera
6 do it. Double-wall it, have the monitors. So why is
7 that not on the table? Why is that not being
8 researched?

9 COMMITTEE CHAIR: Captain Delao?

10 CAPT. DELAO: First, before I address that, I want
11 to go back to the previous discussion of technologies.
12 And, sir, I don't know if you've had a tour of Red
13 Hill, but I definitely would extend that, really, to
14 anybody.

15 And going back to University of Hawaii, the
16 Applied Research Lab, Dr. Margo Edwards, that
17 collaboration and that partnership, I see great
18 possibility there, in a tour or a site visit just to
19 understand that a little bit more. So I just wanted to
20 hit that.

21 Now, to your question, ma'am, the alternative
22 location study, that body of work is there. And, as I
23 discussed possibilities, options with regulators, those
24 are those types of things that we can definitely weave
25 into discussions. But then I also want to emphasize

1 that the work that we've done with Tank Upgrade
2 Alternative Decision Document, we've submitted that.
3 And I stand sort of, you know, back to the best
4 available, practicable technology and what we have
5 submitted stands. But, as I briefed, every five years
6 we resubmit and it's a dynamic ongoing process, so I
7 just want to highlight that.

8 COMMITTEE CHAIR: Mr. Yomes?

9 MR. YOMES: I really appreciate the Navy, what
10 they're doing with Red Hill. I also appreciate the
11 Board of Water Supply for looking out for the interest
12 of the people. Both of you actually looking out for
13 the interest of the people. But I think both of you
14 guys need to come together and find something that the
15 community will be -- they'll look at it as safe and
16 comfortable, where they feel that, "Hey, I'm not in
17 danger, I don't have to worry about the water."

18 And I'm sure both of you guys can come together
19 and come out with a solution that's a win-win for both
20 sides. And the win-win is for the people, actually,
21 the water itself. So I kind of would like to see the
22 Board of Water Supply and how the agencies that wants
23 to just take away these tanks, and the Navy come
24 together, find a solution that's a win-win for the
25 public. Thank you.

1 COMMITTEE CHAIR: Just a pause here. For the Task
2 Force members, we're slated to go until 11:00, and I
3 don't want to quell any discussion, but I will now
4 allow the public comment period to have. So if the
5 Task Force members are willing to go, say, another half
6 an hour beyond the 11:00 time, any objection? I mean
7 if anyone or several of you have to leave, you have to
8 leave, but.

9 MR. LAU: It's not a problem.

10 COMMITTEE CHAIR: Just to get the public comment
11 portion in. We have about ten people that want to give
12 a comment. So any objection?

13 COMMITTEE MEMBER: No.

14 COMMITTEE CHAIR: Okay. Hearing none. Okay.
15 We'll proceed a little bit more, and then we'll go to
16 the public comment, okay?

17 MR. HARDY: Roy Hardy, tag-teaming for Chair Case,
18 for DLNR. At the last meeting back in November, last
19 year, we had a question about what happens if there
20 were these alternative for preventative measures, you
21 know, they're taking their course. But, in the
22 meantime, what happens if something were to happen,
23 like tomorrow, and there's, you know, a big leak? You
24 know, what are the plans, or can we do anything with
25 treating that water? And I think -- and I guess this

1 is a question for Captain Delao. At the time when we
2 asked the question, Navy sort of had, you know, you
3 guys had plans.

4 So I think, and just drawing your attention to
5 Slide No. 10 in the presentation, the last bullet, I
6 think this is kind of along the lines in that, you
7 know, direction that question was going, was about the
8 water treatment planning. And there were other
9 discussions about containment today, external
10 containment. So are there any -- or could you
11 elaborate or give more detail on the water treatment
12 plant or, you know, actually containment, and maybe the
13 EPA can speak to that as well?

14 'Cause we do know that when there is a
15 Superfund sites, you know, things like containing
16 doesn't necessarily mean a physical thing. It could be
17 keeping pumpage in place, so that maybe it increase it
18 to -- you know, basically, vacuum up, yeah? -- the
19 contaminated water. I mean if you have a treatment
20 plant available, treat the water and then we have water
21 we can drink, if there were some catastrophic event in
22 the near future.

23 So I guess my question is, do you have any more
24 details? I know this is in the future. You say next
25 scheduled action, but if you have anything more that

1 you could provide today?

2 CAPT. DELAO: Yes, sir. So we have the slide up
3 there, and to your point, the last bullet, this was
4 part of our submission to the Tank Upgrade Alternative
5 Decision Document, and that is a commitment by 2022, to
6 do the planning, and the engineering, and understanding
7 the sustainment aspects for water treatment facility up
8 at the Red Hill area that would predominantly support
9 the Navy's Red Hill shaft, but, obviously, common
10 aquifer, so there would be benefit across the board.

11 And so the commitment from the Navy is
12 acknowledgment of that, and then a commitment to do the
13 upfront planning in support on follow-on construction.
14 And not to bog discussion down in details, but the
15 monies for doing that construction would have to
16 obviously be presented to D.C. Some element of
17 competition was competing requirements, et cetera,
18 et cetera, but it starts here, locally. And as the
19 Regional Engineer, as Admiral Chadwick's Regional
20 Engineer, I've already done the initial paperwork. We
21 have some initial analysis and studies to support the
22 capacity that would be required, initial citing,
23 et cetera. And so that feeds into the follow-on work
24 that speaks to this last bullet and what we've
25 committed in the Tank Upgrade Alternative Decision

1 Document.

2 MR. LINDER: Yeah, this is Steve Linder speaking
3 for EPA. You know, that's a very good comment. Many
4 of the sites that EPA gets involved with water
5 treatment can be a necessary part of an overall
6 comprehensive solution. I, myself, have been involved
7 in several cases where drinking water treatment was
8 part of the solution to an environmental problem.

9 For fuel tanks, it's been rare because it's,
10 you know, relatively rare to see big municipal
11 supply-type wells being impacted by fuel releases. But
12 I have been involved, one, in particular, in Southern
13 California, where it was more complicated in terms of
14 the types of fuel than what we have at Red Hill, 'cause
15 it was gasoline with additives. But in that particular
16 case, that water purveyor did end up with a treatment
17 plan to address potential for fuel contamination in
18 their drinking water.

19 You know, the technology exists. You know,
20 luckily, petroleum is relatively easy to remove from
21 water. I think one of the challenges we have here,
22 again, is just scale size. But I think that that is a
23 potential viable kind of alternative. I think that the
24 containment part of it, capturing any kind of release
25 and making sure it doesn't move is, you know, from what

1 we've been seeing in the work we've been doing,
2 overseeing the work the Navy is doing, the movement of
3 groundwater is quite complex here because we're, again,
4 inside of a mountain in a volcanic area, there's a lot
5 of complexity to that. So getting to a point where we
6 have sufficient confidence that the fuel can't contain
7 is quite challenging here.

8 COMMITTEE CHAIR: Mr. Lau?

9 MR. LAU: I appreciate the comments of Mr. Yomes
10 and Board of Supply's committed to provide safe
11 drinking water to our community. And these aquifers
12 are a vital resources to our island. They're
13 irreplaceable.

14 You would rather not be having to treat, to
15 move fuel from drinking water to make it safe. But we
16 have an opportunity here for prevention. So rather
17 than letting the fuel leave the room, or Elvis has left
18 the room here, we would prefer that the solution be
19 used to prevent any leaks from leaving the tanks
20 themselves. And that's our position, is, we've stayed
21 consistent.

22 I think a reasonable compromise is, do a
23 secondary containment system, a tank within a tank.
24 And if you reactivate -- there are 18 tanks in use in
25 various stages of operations. There are two tanks that

1 have been unused for decades. I hear concerns from the
2 Navy that if you do the double-wall septic tank within
3 a tank, you're going to lose 20 percent of your
4 capacity, and they need all that fuel capacity so they
5 can't afford to lose 20 percent.

6 But if you activate all 20 tanks, then you can
7 make up some of that 20 percent, then the loss will be
8 less. But our recommendation is always go to secondary
9 containment. A tank within a tank, an interstitial
10 space between the inner wall that contains the fuel,
11 and an outer wall that are capturing the leaks before
12 it gets out into the aquifer.

13 So, David, we don't have to put the treatment
14 cost on our rate payers. In Central Oahu, for over
15 30 years now we've been dealing with the remnants of
16 chemicals used by pineapple and sugar cultivation. And
17 we don't see any end to that treatment cost. That's
18 right now being borne by all the water rate payers on
19 Oahu.

20 So we respect the Navy highly, and their
21 mission is vital to our country, to preserve our
22 freedom. But we realize here that drinking water, that
23 our water resources are vital also to our community's
24 lives and to our economy. So please consider, or
25 strongly, the idea of secondary containment. If not,

1 look at alternative sites to relocate some of those
2 fuel out there to other locations that will reduce the
3 risk of how much is being stored at Red Hill, right
4 now.

5 That's what we ask of the Navy and the
6 Department of Health or the EPA. Don't fool around
7 with our drinking water aquifer here. It is precious.
8 It is the only resource that we have in this area, and
9 our island depends on these groundwater resources.

10 So we want to support the Navy and their
11 mission, but we think it can be accomplished in other
12 ways and other alternatives. The AOC, from the very
13 beginning, and I'm getting a little frustrated here
14 because we've been working at this thing since 2015.
15 And we're getting tired of having to say the same
16 concerns over and over again, and not being heard.

17 At the very beginning I asked, could you look
18 at the AOC's scope of work and the statement of work,
19 and include a consideration of moving the fuel to other
20 locations? And do a very objective and sound
21 engineering basis, financially sound analysis, to look
22 at alternatives to the upgrade of the cost of upgrading
23 the tanks, which could be in the billions of dollars
24 when I heard last year. And they refused to do that.

25 I ask again, have the EPA and Department of

1 Health, the Navy and the Defense Logistics Agency, who
2 owns the fuel at Red Hill, and to the statement of work
3 under the AOC, serious consideration of alternative
4 locations, not over the drinking water aquifer, then
5 the solution, David, could be actually a hybrid of
6 different approaches here. That would be more cost
7 effective and still meet the requirements of the Navy
8 and their mission.

9 I think there is a win-win opportunity. But as
10 long as the positions of the players that are signatory
11 to ACOs stay entrenched, then there is only a win-lose
12 situation here. And I'm, David, I'm trying to speak on
13 behalf of you, of everybody in this room that takes
14 water from the Honolulu Board of Water Supply. Please,
15 we need your help. We need to protect our water
16 resource.

17 The wai is precious. It sustains life for our
18 community. And we need to do something and take it
19 seriously. It is also in our state's constitution, it
20 is a public trust resource that are not owned by the
21 Navy or anybody else in this room, but are owned by all
22 the people of this State of Hawaii. So we need to
23 malama this resource as it deserves, because it is pure
24 and uncontaminated. It's been contaminated to some
25 degree at Red Hill already by leaks out of these tanks,

1 but let it not be further contaminated.

2 We need to malama the wai, the aina here. It
3 is our kuleana for everybody in this room that lives in
4 this community, it is our kuleana to take care of this
5 resource. And we take it serious at the Board of Water
6 Supply.

7 So, Keith, I'm going to shut up at this point
8 because I've said enough. I'm going to get off my soap
9 box and allow the people to say their peace. Thank
10 you.

11 COMMITTEE CHAIR: Okay. Thank you, Ernie.

12 Task Force members, further comments and
13 questions? We're going to move to the public comment
14 period. Number has grown a little bit since I just
15 mentioned it. What we're going to do is, we're going
16 to mention the first three names that have signed up to
17 testify or to provide comments. You'll each have three
18 minutes to give your comment. And in order to kind of
19 speed this up, I'm going to ask the first three people,
20 I'll mention the first names, to kind of sit in this
21 front row so that you can be ready when your time is
22 available.

23 So if we can have Helen, Jodi, and Pat come up
24 here. And the first one is Helen. And just reminding
25 you that you'll have three minutes in the interest of

1 all the other commenters.

2 MS. NAKANO: I'm Helen Nakano. I'm a community
3 volunteer in Manoa. I belong to a disaster
4 preparedness group called Be Ready Manoa. And we deal
5 with preparing the community for natural disasters, but
6 Red Hill is certainly a disaster in the making. It is
7 a man-made disaster in the making. I also belong to
8 the stakeholders advisory group of the Board of Water
9 Supply, where we worked on the 30-year vision of
10 protecting water resources in Oahu, of which I'm very
11 proud to be a part of. And my comments are these.

12 I agree completely that nothing is permanent.
13 That is something that we need to keep in mind.
14 Nothing is permanent. Including our human bodies,
15 including things that man makes. Right? And I
16 listened to all these experts, and it reminds me of a
17 panel of doctors.

18 Now, my peers are all facing health challenges
19 and they go into a hospital, and one thing after the
20 other happens. I mean they first get their liver taken
21 out and then that causes something else. And then they
22 get their spleen fixed and then that doesn't work. And
23 then they get their lung cut partially, and then they
24 add a few dozen more pills. Yeah? And they keep on
25 working at a body that is deteriorating, and it's not

1 going to -- it's not going to be here. In other words,
2 I think that Red Hill is a dead thing, and we have to
3 get it out because it's old already.

4 You know, I think Red Hill was a big mistake.
5 It was during territorial days. I doubt whether there
6 is any kind of environmental tests that were made. I
7 doubt whether the military knew that there was a water
8 aquifer a hundred feet below, I doubt it. I doubt it.
9 We were in the middle of preparing for war. Yeah? And
10 why were we such a target? Because we had practically
11 the entire United States Navy on our shores. We have
12 the biggest arsenal of military artillery and
13 everything else here in the islands. We are a target.
14 We are a target. And so we are paying the price.

15 COMMITTEE CHAIR: Could you please summarize?

16 MS. NAKANO: We are paying the price. Thank you.

17 COMMITTEE CHAIR: Thank you. Jodi, followed by
18 Pat.

19 MS. MALINOSKI: Aloha. I'm Jodi Malinoski. I'm
20 the policy advocate for the Sierra Club. I'm going to
21 speak specifically to the Tank Upgrade Alternatives
22 report. We did provide in-depth comments. But because
23 all of you are here today, I'd like to get them on the
24 record. This is one of the few opportunities we have,
25 to give this kind of public forum.

1 So, basically, the Navy has selected the least
2 protective, least costly, and least ambitious option.
3 We're calling for the Department of Health and the EPA
4 to reject this report, and to essentially direct the
5 Navy to relocate their tanks to locations that are not
6 above our aquifer.

7 Thank you, Captain, for your summary of some of
8 the criteria you're using, relating to leak prevention,
9 detection and mitigation. I'm going to go over some of
10 these things in detail. Many of the improvements
11 listed on this presentation have already been
12 implemented at Red Hill. They are separate objectives
13 under the Administrative Order on Consent, and they
14 would be implemented at Red Hill regardless of this TUA
15 decision.

16 The more significant improvements are vaguely
17 defined pilot projects in the studies, we're going to
18 study this and look into this. And this preference of
19 Option 1-A is really insufficient to protect our water,
20 even with the listed requirements that the Navy is
21 pursuing.

22 Relating to leak prevention, there is the
23 internal coating of the steel liner, and since the
24 1960's, the Navy has already been doing an epoxy liner
25 on the inside of the tanks. This is not preventive

1 corrosion of the tanks. We've seen from the
2 destructive testing that all of the samples taken are
3 showing some signs of corrosion. So the epoxy is not
4 working. We need to do more than that.

5 There is an experimental pilot project being
6 proposed to fully coat the interior surface of the
7 tank, and we have a lot of questions about that. How
8 does that satisfy the corrosion requirements that are
9 needed, because it's not preventing corrosion. Does
10 this count as the additional liner or the vaguely
11 defined double-wall equivalent, secondary containment
12 that is being included in the report? And why do we
13 not select Option 1-B that actually is interior coating
14 of the entire tank as our preferred choice, if that is
15 what the Navy is going to pursue?

16 Related to the tank repair maintenance, during
17 the clean, inspect, repair project, these tanks are
18 taken out of service, they're cleaned and inspected.
19 This is what essentially caused the leak in 2014. And
20 since the procedures have been updated since then,
21 that's great, but they've already been approved before
22 this Tank Upgrade Alternatives report came out.

23 And as far as future technologies are
24 concerned, like the robots and the drones, they're not
25 available at this time. So that's concerning to us

1 because we are heavily relying on the clean, inspect,
2 repair process to essentially prevent leaks, when it
3 hasn't prevented leaks in the past.

4 The decommissioning of smaller nozzles. The
5 May 2019 Risk and Vulnerability Assessment concluded
6 that tank nozzles are a high area of risk.

7 COMMITTEE CHAIR: Please summarize.

8 MS. MALINOSKI: Thank you. So the Navy is
9 proposing decommissioning some of the smaller nozzles.
10 That does not address the larger nozzles, which has a
11 higher risk than the smaller nozzles.

12 Relating to release detection, many of the
13 things listed in here have already been implemented.
14 There are separate requirements under the AOC. Again,
15 they should not be used as justification on why we are
16 selecting the least protective option.

17 And relating to release mitigation, we have
18 this tank defueling procedure saying that you allege
19 are basically of empty space in some of the other tanks
20 is how we're going to get, if a leaking tank is
21 happening, how we're going to move the fuel to another
22 location. But it doesn't ensure in this TUA document
23 how we're actually going to do that, what procedures
24 are in place. Do we have open space in all the other
25 tanks if one of the tanks that stores millions of

1 gallons leaks, can we move the fuel quick enough?

2 And then the water treatment plant is just, you
3 know, it's a feasibility study. It's no commitment.
4 The Navy does not commit to that. And, again, it's
5 really reactionary. We're not trying to treat our
6 water. That's not an acceptable option to us, and it
7 really is just included in the executive summary. I
8 think it needs to be flushed out a little bit more than
9 TUA report.

10 And, I'm sorry, I'm going overtime. Let me
11 summarize. The double-wall equivalency, secondary
12 containment is not defined at all. We need further
13 clarifications on what that is. And, as the Navy has
14 said, it's not available right now.

15 We have other studies that are really good in
16 this TUA report. I'm really happy to see the Navy is
17 taking proactive steps. They're doing the fuel study
18 about fuel needs. Unfortunately, that study, it's not
19 open to the public so we don't know actually what the
20 Navy is going to need, if that's validated, because we
21 don't get to see what that is.

22 The alternate location studies that was brought
23 up, that's already been completed and the Navy
24 concluded that they wanted to move their fuel
25 immediately mauka and build brand-new tanks, still

1 100 percent over our aquifer, that's unacceptable.
2 That's not an alternate location. That's ridiculous.

3 And then the strategic reserve status plan, we
4 have problems with that. We don't want these tanks to
5 be used forever, in the case of war. Like these tanks
6 need to be, really, relocated to a place that doesn't
7 jeopardize our water. They're aging.

8 What we do know from this, these tanks have
9 leaked already. We have Navy document showing over 30
10 leaks since they were built in the 1920's. Soil
11 samples from beneath 19 of the 20 tanks show
12 petroleum-based contamination. We know that the tanks
13 have leaked. We know the tanks are corroding. There
14 are the destructive testing that shows that every
15 single sample taken, the liner has corroded within the
16 past 70 years.

17 And, furthermore, the testing of these coupons
18 showed that the scanning method that the Navy is using,
19 50 percent of the time, is inaccurate. We're either
20 overestimating or underestimating how much corrosion is
21 happening on these tanks. And we know that these tanks
22 will continue to threaten our water. We have that Risk
23 and Vulnerability report that concluded that there is
24 an almost 30 percent chance that there will be a fuel
25 release between 1,000 and 30,000 gallons each year.

1 That's nearly a one-in-three chance that another large
2 leak similar to the 2014 leak will happen every year.

3 So, to summarize, there are 400,000 residents
4 and visitors who rely on this water every day. This
5 continues to threaten our water. So we're really
6 asking for more clarification to be done in this
7 report. I'm happy to provide our comments to you
8 folks, but the Navy really needs to seriously look at
9 some of these question marks that we have, further
10 flush this out.

11 And if they're not able to address these
12 concerns, the tanks really need to be moved, and that's
13 what the focus of this needs to be. We need to
14 relocate the tanks, not continue to study, do vague
15 pilot projects, undefined secondary containment into
16 the future. We're really looking for a solution, and
17 the only solution to protect our water, to ensure
18 protection of our water is relocating the tanks. Thank
19 you.

20 COMMITTEE CHAIR: Thank you. Pat? Pat Beekman?

21 MS. BEEKMAN: I don't remember signing up for this,
22 but I'll make a comment. Sorry.

23 COMMITTEE CHAIR: The next three are David, Alison,
24 and Dave. Go ahead.

25 MS. BEEKMAN: Boy, this is completely

1 extemporaneous. I wasn't prepared for this at all.
2 But I'm hearing a lot of misconceptions about Red Hill.
3 And, originally, some third-party people were saying
4 that the tank should be double-held. Now they're
5 saying that they should be changed to another location.
6 Seems that if that does happen, there are going to be
7 some other complaints and an alternate location for all
8 that fuel is not going to be acceptable.

9 It's been said that the coupons that were sent
10 to be studied were all showing signs of corrosion, and
11 that's not what I remember. And the coupons, some of
12 them were chosen because the Navy judged them to be
13 corroded and they wanted that to be studied. The
14 others were okay.

15 Another thing that I hear is that the
16 quarter-inch plates are aging. Well, everything is
17 aging, right? This building is aging. The tables are
18 aging. Everything is aging. So that puts a slant on
19 it that is not necessarily accurate.

20 The quarter-inch plates, or the quarter-inch
21 tanks are huge. They are 250 feet tall. That's about
22 a 25-story building, 100 feet in diameter, that's about
23 a 10-story building laid on its side. They are just
24 huge. They hold a lot of fuel. The quarter-inch steel
25 is carbon steel, I found out just recently, which is

1 very, very heavy, very sturdy. And they're backed by
2 concrete. Three layers of concrete, which is several
3 feet, so it's not just the steel holding up the fuel.
4 The weight passes through the concrete that is flushed
5 against the steel. There's reinforced concrete first.
6 There's a grout that was pressurized at 300 psi, pounds
7 per square inch. Here on the surface, we get
8 14.7 pounds per square inch. So 300 psi is tremendous
9 pressure. That was pressurized and put between the
10 gunite, which is the third layer, and then the
11 reinforced concrete, which is the first layer. So the
12 grout pressurized and put into that layer in between.
13 And so there's -- it's a protection for the
14 one-quarter-inch plates.

15 I think that the AOC is working. And I
16 understand everybody's concern about the fuel. It's a
17 tremendous amount of fuel there, but we do need to fuel
18 our airplanes and ships. And the Navy is doing a
19 really good job of keeping up with technology and
20 monitoring the situation, being very careful that
21 there's not going to be any leaks. It's not like, you
22 know, things are back in the 1940's, when "ecology"
23 wasn't even a well-known word then. That word came in,
24 in the 1960's.

25 COMMITTEE CHAIR: Please summarize, please.

1 MS. BEEKMAN: So, basically, I'm saying that the
2 Navy is monitoring the situation very carefully. If
3 there are any leaks, they shut down the tank and drain
4 it and search for the leaks. And I think the AOC has
5 taken much of the realities of the situation into
6 consideration. And I hope that the two different sides
7 can come together and work better to come to a good
8 solution for the people of Hawaii and the purity of our
9 water.

10 COMMITTEE CHAIR: Thank you. David, followed by
11 Alison. David Ford?

12 MR. FORD: Operating Engineers, Local 3. Crane
13 operator.

14 COMMITTEE CHAIR: Can you take one of those
15 microphones?

16 MR. FORD: I won't need one. There's not enough
17 for you in this room. But I'll tell you one thing.
18 We, the people of the United States, starting with the
19 Operating Engineers, 9/11, we were on the ground to
20 clean that mess up. Dumped me on the ground. "Oh,
21 look at here. Fix it."

22 "Yes, sir." That's what I know how to do.

23 Now, these tanks were put here because we had a
24 little problem with Japanese. We still got that
25 problem, now it's North Koreans. The United States

1 Navy needs that fuel. But we also need our water.

2 Now, how we going to fix it? Well, there are
3 some companies in Texas, as I used to be working for
4 McGee oil corporation, couple other oil company, and in
5 the fracking up in South Dakota. They have come up
6 with a stretchy stuff. Put your hands together,
7 directional drill under such an operation of these
8 tanks, forced this solution in there. It becomes a
9 barrier level, handled 8-point quake. Civil defense
10 document.

11 And under that is our water, and the oil is
12 going to stay where it was, even though the tanks
13 break. But 7,000 pounds pressure. Because the
14 pressure that holds this together is in the excess of
15 50,000 pounds.

16 Now, you know, Mr. Engineer, I don't know about
17 this, because you got to do some homework there, okay?
18 Which I'll be happy to help him. Because my union
19 director would be, "Clean it up today. Get in there,
20 help the Navy, be the man."

21 I've been in the newspaper. President, Tugboat
22 Hoga Preservation Society. United States Navy. I've
23 been in the Navy business since 1966, with John
24 Trinkaus, Sr., master driver, Pearl Harbor. Then there
25 was the captain of the port, Jerry Hoffhough, now

1 retired from Bowfin Submarine Museum, who tried to
2 serve there since high school, 1968, Radford. Still
3 here.

4 I've walked this island, every square inch of
5 it, twice in my lifetime. So the Navy can't tell me,
6 "Well, that's not there." Well, why keep tripping over
7 it, then? So where the aircraft is, where the sites
8 are, I know all of those places. I worked for Haitzuka
9 Brothers before, with this guy. Had water tunnels and
10 shafts all over the place, and busted pipes, you name
11 it, we excavated, we replaced it. I hope we have.

12 And there were a few glitches with water tanks
13 and chemicals. I'm hoping they'll work this out. And
14 I'm sure these two guys can get together. In fact, we
15 all can get together and fix this damned thing. And no
16 more of this fooling around. But just get these
17 companies, get this stuff under here. I talked to Ed
18 Case already. He says he got a trillion dollars to
19 help the Navy and the public clean up all these little
20 problems, so we can do right pretty good. All we got
21 to do is keep the North Koreans off our back, then
22 we're good. That's what it looks like.

23 How we're going to get there? Yet to be
24 determined. I am on two committees within the system
25 and the State, make sure that --

1 COMMITTEE CHAIR: Please summarize, Mr. Ford.

2 MR. FORD: I guess I'm done.

3 COMMITTEE CHAIR: Thank you. Alison?

4 MS. BHATTACHARYYA: Hello. Thank you to the Navy
5 for testifying today and presenting another update.
6 However, I have to say, I'm very disappointed in the
7 latest presentation. It is a tale told by the Navy,
8 full of sound and fury, signifying nothing. We have
9 not taken any concrete steps to prevent a leak at the
10 Red Hill fuel tanks.

11 We have a feat of engineering built, 75 years
12 old. This supposed feat has no capacity for
13 maintenance built into it. You can't maintain them
14 properly. And there's no safety because there's no
15 redundancy built into the system. So I question the
16 statement, this is a feat of engineering. There needs
17 to be a way to easily maintain the tanks. There also
18 needs to be a way to make the tanks safe.

19 We also have mentioned the strategic importance
20 of these tanks to the Navy. That's not in doubt.
21 However, we're not seeing the funds and the action to
22 step forward and make these tanks safe. Our water is
23 paramount. We cannot do without water. We need to be
24 able to shift some of the money that's going to buying
25 new tanks and planes, and shift it to fixing these

1 tanks. And if they can't be fixed, and the only way to
2 make them maintained and the only way to make them safe
3 is to move them, then we need to move them.

4 And, lastly, I'm extremely disappointed at this
5 new 2045 deadline. I thought it was already hard-coded
6 in the Administrative Order of Consent that it was
7 2037, which is still a long way away, given the risk of
8 a leak. So when you talked about 2045, you said in the
9 time frame. You didn't say a specific date. So we've
10 already pushed it back seven years and now we're
11 pushing it back some more, and what's to say once we
12 get to 2045, that we also push that back? We need some
13 real commitments.

14 Number one, if you have strategic reserves,
15 reevaluate those reserves and start emptying some of
16 those tanks today. That won't cost you any money, and
17 it's just a smart thing to do to reassess the risk
18 involved in having that much fuel stored above our
19 aquifer.

20 And, second, pick a date and stick to it.
21 Don't just keep giving us time frames and pushing
22 things back. Make a commitment and pick a date on the
23 day that you'll get fuel out of the Red Hill fuel tanks
24 and have it moved. Thank you.

25 COMMITTEE CHAIR: Thank you. Dave?

1 MR. MULINIX: Which Dave, now? Dave Mulinix?

2 COMMITTEE CHAIR: Mulinix.

3 MR. MULINIX: Yes. Okay, that is me.

4 COMMITTEE CHAIR: Followed by Judith and Gina.

5 MR. MULINIX: Lot of Daves today. I'm Dave
6 Mulinix, with 350 Hawaii. And I just, first of all, I
7 want to thank Ernie Lau and Board of Water Supply. You
8 are our gift to our community. And the Board of Water
9 Supply, you were definitely there protecting us, and
10 that is his job. So mentioning bickering is really not
11 appropriate because Ernie is not -- he's looking out
12 for us, exactly what the folks on this commission want.

13 The military, on the other hand, their main
14 focus is war. Their job is to make sure they're ready
15 for war. Our water supply is secondary to them. So
16 Ernie Lau, his first priority is protecting our water
17 supply, and we need to listen to him. He's an expert
18 in this field. He's looked at everything, and it's
19 vital for this.

20 The biggest polluter in the world is the
21 military. U.S. military, military bases all over the
22 world, several hundred. The military has contaminated
23 water sources all over the United States, of other
24 communities. They have not cleaned up any of them. We
25 have several sites here in Hawaii that have been

1 contaminated by the military, still contaminated, not
2 cleaned up. That's not their priority.

3 So, anyway, I can go into, you know -- I don't
4 need to go into detail, but you've done this before on
5 why this is a bad idea to have the tanks above the
6 water supply. It's just obvious. It's elementary.
7 Any elementary school kid will tell you this is absurd.

8 So the only logical answer, see, the military
9 is going for the cheapest and the most simplest thing
10 for them. If they wanted a big weapon, they'd spend
11 endless amount of money to get it. So they're not
12 looking out for us as their first priority. So that's
13 what we need to do. When you remove these tanks, that
14 is the safest thing. And it can be done, and that's
15 what we should be looking at. Thank you very much.

16 COMMITTEE CHAIR: Thank you. Judith? Judith?
17 Gina?

18 MS. HARA: Hi. My name is Gina Hara from Halawa
19 Valley. I was born and raised in Halawa. Thank you
20 for listening to me. In February, part of what I want
21 to say was already talked about in front of the city
22 council, which unanimously voted for, if it was not
23 going to be double-lined, that it should be relocated.

24 And I just wanted to share that I think it's
25 the solution, if it's possible, would be to move the

1 tanks above the grounds that don't have water. And on
2 your study, there are three sites that perhaps could be
3 double-checked by Chip Fletcher, Chip, who does the
4 underground water studies at U.H. Then if those sites,
5 like you know near the old Costco where Target is,
6 which came up in your study, perhaps you can look into
7 Washington, Manchester, that has already moved the
8 exact same type of underground tank from the same World
9 War II era, and they quickly moved it aboveground. The
10 company that did that is the same company that worked
11 on Point Loma in San Diego. San Diego also had the
12 similar situation of having the World War II tanks
13 leaking.

14 So if you look on -- I talked to people in
15 San Diego that monitor the sites of where they still
16 have contamination. They still cannot resolve it. In
17 Washington, they didn't have a department of health
18 resolve the issue, or AOC. In Washington, they have a
19 Department of Ecology. So they look at the land and
20 the economy and the people as a holistic way, and
21 within one year they secured all the funding to move
22 everything, and it's already done. And with the word
23 "relocation," within a year the community got together,
24 including your commander of that area, prepared, how
25 shall we say, the next generation fuel supply. It is

1 aboveground.

2 And if we extrapolate the cost of that amount
3 of fuel that they needed, to the amount of fuel that we
4 have at Red Hill, if we extrapolate that cost, also
5 with the cost that was for Point Loma, and we times
6 that by 2, because it's Hawaii, and Hawaii is
7 expensive, it's still a bargain. It's not \$10 billion
8 as the initial study, which was a very preliminary
9 study, I understand. But it's 187 million, which
10 sounds like a bargain and cheaper than trying to line
11 something. You know what I mean?

12 And I just want to say that I'm just a normal
13 person. I'm a property manager in the Halawa area.
14 When I saw the photos of the tank, it really reminded
15 me of my job. Because I'm always running after leaking
16 water tanks, setting up sensors for when it leaks.
17 'Cause it's not if it's going to leak. It's when it's
18 going to leak. And I also did some research online,
19 what are the best aboveground tanks or below-ground
20 tanks, what are other countries doing? When I looked
21 at this, Taiwan did a comprehensive study of what
22 causes leaks. You know, because now in this era,
23 there's --

24 COMMITTEE CHAIR: Please summarize, please.

25 MS. HARA: Okay. The number one cause is because

1 of human error. So you can have the greatest
2 technology, but in our case it was human error. We
3 have apparently one person who's at the site I met.
4 You were able to introduce us, it was Kevin, I think it
5 was, with the curly hair, the blonde guy. There's one
6 guy there, and he didn't even know that it was JP-8
7 that leaked. And he wasn't even sure that it was Tank
8 No. 5.

9 So I just would like you to consider the
10 solution and also remediation. Because even in China,
11 they use activated charcoal when there is a
12 contamination. And it has suggested in the past, but
13 it was overlooked, that remediation can be done using
14 Korean natural farming techniques, which is, using the
15 microbes that digest JP-8 from that area and
16 acclimating them with the microbes that are in that
17 area. So if you combine those and make a slurry or a
18 micro-solution, that can be used like as a fire -- you
19 know, like a fire, how do you say, emergency solution
20 that can seep into the tank and chase the contaminants.

21 So I will cut it off here, but I thank you for
22 your time.

23 COMMITTEE CHAIR: Thank you. Next is Konohiki. We
24 actually have two Konohikis. Konohiki 1.

25 KONOHIKIK 1: Aloha. I am Konohiki. First thing

1 is first. The Navy got to get rid of the tank because
2 the land is in Hawaii, have allodial title. Whoever is
3 going to give you folks the permit, you have to ask the
4 person, or the State, or the County if they have
5 allodial title. Now, in Hawaii, the lands have titles,
6 like crown land, ceded lands, and royal patent lands.
7 You folks are illegally, in Hawaii, on these lands.

8 Before you folks knew anything, show us the
9 allodial title. If you show us the allodial title,
10 then whoever signed it, is bogus, it's fraud. Because
11 the allodial title have to be the signature of
12 Kamehameha the Third. Thank you. Have a great day.

13 COMMITTEE CHAIR: Thank you. Is there another
14 Konohiki? Next speaker will be Amelia.

15 KONOHIKI 2: Konohiki number 2. Aloha. I'm
16 usually over here. I hope all you guys are. What
17 I.D.'s you guys get? Because you guys did force,
18 forcefully taking our Queen identity and her all. Her
19 paradise, her people. Her land. Our government. And
20 we was trying to fight 'em with kapu aloha. And we
21 still showing aloha. I mean, even some guys, they kind
22 of already, cannot help. And I could've be like that
23 before.

24 But with Kealakua, he wen help me. Yeah, he
25 wen help me big-time. He's a miracle. 'Cause my past,

1 what I went through, I living like one miracle. I was
2 in the Navy in '69, on the New Jersey. And I was like
3 the janitor. Boatswain's mate. Clean the ship. And
4 when the admiral come on the board on that ship, our
5 ship was kind of like -- was one flagship.

6 Admiral Commandant, "Holystone." You know what
7 "holystone," ah, on the battleship? They get the
8 wooden decks. We stay there two nights, holystone. So
9 I was a janitor. And then we go on the ocean. And
10 like the guy said about pollution, the military, yeah,
11 they the biggest pollutionist, yeah? Big-time.
12 Big-time. Environment.

13 You talk about war, what kind war we getting?
14 Pollution, climate change. Not the other country.
15 It's about people like you guys, all you guys over
16 there. 'Cause the officer tell me, Hey, I clean all
17 the rubbish every day. Where I going throw this? In
18 the compactor? No. Fantail. And looking all,
19 following me when I going throw 'em. All the brothers,
20 the sharks all waiting for me throw the slobs or
21 whatever.

22 But, anyway, you guys know what you guys doing.
23 And you guys think you guys protecting you guys'
24 entity. And every nation is doing that same thing.
25 And Mother Nature is getting all -- why you think -- I

1 mean I no like swim now. Before I used to like swim
2 around the ocean. I look at all the shores, crazy.
3 No, no. From Palolo, Manoa Valley, that's where I
4 raised. I raised and born Halawa first. I wonder why
5 I here. I born Halawa. I come moving by Paradise
6 Park, Manoa. I lived down the river, you know, the
7 river by Paradise Park? I grew up over there. I come
8 home ten o'clock at night, and I was only like three,
9 four years old, five years old. I no kid you. Yeah.
10 This not one fishing tale, brah. Okay?

11 But, anyway, you got to remove that tanks
12 'cause the Hawaiian says. The Hawaiian, we get the
13 right to talk and say. And this for everybody over
14 here, because we think about safety and health. Us
15 guys, when we lived over here was all sustainable,
16 hundred percent. And you guys came, Captain Cook or
17 whoever came, we show aloha. And still showing aloha.
18 Okay?

19 So you do the right thing, because it's very
20 dangerous, this. What if one just sink one time? Ah?
21 All the leaking, everything, the foundation. The damn
22 engineers never had this kind. Too much akamai. Okay?
23 Or manao. But, anyway, if that buggah ever sink, one
24 sink and going in aquifer, aloha. Because that buggah
25 can sink. When all that water coming out underneath,

1 going be all loose. And, believe me, akua is telling
2 me that, "Tell 'em this."

3 I'm telling you guys, tell you right there,
4 everybody, suck their water. And you guys supposed
5 to -- you know, the main one, if you guys can say,
6 well, usually leak, you guys can find out which one the
7 worst one and then fix 'em one at a time. I think that
8 will be real -- at least you doing something. At least
9 one of them, the worst one. You know how long we doing
10 this? I was at the meeting last year, like that. And
11 I told the guy suck 'em already or give 'em free to
12 somebody. Okay?

13 COMMITTEE CHAIR: Can you please close, please?

14 KONOHIKI 2: Yeah. Well, you guys got to do
15 something, but this very serious, okay? Very serious,
16 yeah.

17 COMMITTEE CHAIR: Thank you.

18 KONOHIKI 2: That's our life. Thank you.

19 COMMITTEE CHAIR: Amelia. Dianne to follow.

20 MS. GORA: Hello. My name is Amelia Gora. I have
21 written a number of letters, legal notices, and in
22 opposition to the water tanks. I mean not the water
23 tanks. The fuel tanks in Halawa. Halawa belongs to my
24 families. I'm one of the representatives of our royal
25 families. I'm also one of Kamehameha's descendants

1 from four of his children. I'm a descendant of six of
2 Kalaniopuu's and Kaumalii's. You probably don't
3 recognize these names. But I'm also a descendant of
4 John Young, Isaac Davis, through the daughter, Grace
5 Kamaikui, who was married to Isaac Davis. I'm from two
6 of their children. The names are Hueu Davis and Peke
7 Davis. So I have a mixture of Hawaiian and English.

8 The point is, is that those lands, Halawa,
9 belongs to our families. I'm one of our royal family's
10 representatives, and we continue to oppose the use of
11 our lands, and this is all allodial. I have the
12 ownership papers. And for the purpose of our people,
13 everybody who's taking in the water have the capability
14 of getting disease, cancers. Is the Navy going to be
15 waiting for everybody to start suing them? You know,
16 because, right now, there's so many people who died
17 already from cancers.

18 I'm a long-time researcher, so there's a lot of
19 issues about the seizure of Hawaii. The Hawaiian
20 Kingdom is still here. The owners are still here. So
21 you guys going to have to talk with us. And the point
22 is, we don't want those tanks there. It has to be
23 removed. I'm a descendant of Grace Kamaikui, who's the
24 owner of the ahupuaa. I'm also a descendant of Mataio
25 Kekuanaoa. Because our families only married each

1 other. So there's a lot of issues because the
2 Kamehamehas are here. Lots of fraud. Everybody in the
3 world is finding out about what happened to Hawaii.

4 And the point is, no toxic, you know, tanks. I
5 worked for the military. I was with the Army, Navy,
6 Air Force. The best group that I liked was the Air
7 Force. I even worked with the IRS. But the point is,
8 is that it's not pono. It's not okay. It has to go.
9 Remove the tanks.

10 And I did file a letter and I sent it off to
11 President Trump. He answered me several times, but not
12 the recent one. But, anyway, the point is, as a
13 representative, I'm just saying flat out, remove it,
14 get it out of here, because we're interested in the
15 lives, health, safety of everybody in Hawaii.

16 COMMITTEE CHAIR: Can you please summarize, please?

17 MS. GORA: I'm a Kamehameha descendant. So we are
18 the landowners. We are the allodial owners. So I'm
19 just letting you folks know that, you know, the use of
20 the water, that belongs to Kamehameha III, his heirs
21 and successors forever. And everybody needs to read up
22 what an allodial title is. It's the paramount superior
23 titles to everything. And we're occupied by squatters.
24 Because even Ige and everybody, you know, basically are
25 squatters. You know, because there's a lot of fraud.

1 And I do a lot of writing. And you can read The
2 IOLANI, "The Royal Hawk." It is on the web. And it's
3 out for -- the highest readership is the United States.
4 Then Russia is usually second behind. And Moldova and
5 there's a whole bunch of other nations.

6 Anyway, the point is, everybody is watching,
7 and as a representative and one of the owners, I'm
8 saying get it out. Thank you.

9 COMMITTEE CHAIR: Thank you. Dianne?

10 MS. WENNICK: Hi, everyone. I was on my way to the
11 gym. And I was told about this meeting through an
12 email from a friend. And I am so happy I came. I just
13 want to thank everybody, because I know we're all
14 trying to work on this together. The reason I was
15 contacted is because I just recently made a film called
16 "Finite Water." It was made in Hawaii, but it is about
17 global concerns. And the reason I made the film,
18 without having any experience, is because I just
19 attended the Global Water Summit.

20 So I hear everybody's position and I'm not
21 prepared at all, but I do want to read my thoughts
22 about what I think is happening. And mainly because
23 I've witnessed many countries discussing their needs,
24 their solutions, their problems.

25 I'm a little discouraged when I hear that this

1 has been going on for quite a while. And, obviously,
2 there is bureaucracy that's causing the problem.
3 Because there's a time frame, there's paperwork,
4 there's funds, and so on. But I have to say that one
5 of the things I learned at the Global Water Summit as
6 well as when I was in Paris, is that UNESCO provides a
7 solution called the futurist conference, which is where
8 everybody does not think traditionally. We're not
9 thinking about the past, how it's been done, and so on.
10 We get together as a team, and we think tank and we
11 find solutions instead of trying to figure out how to
12 solve it from something in the past.

13 But, as you mentioned, you mentioned, you can
14 learn from other people's examples. So just to give
15 you an idea, I'm an average person. I made the film.
16 It involves what's happening with our water system
17 worldwide. It is reaching worldwide, and we've won
18 about 25 awards already. And we are now licensed to
19 show our film to a potential 40 million students to
20 change the next generation's thinking.

21 The futurists do believe that you can make a
22 difference by saying what if. Not about what's
23 happening now, but what if. And you take each solution
24 and you move it forward.

25 And to give you an idea, there was a scientist

1 from London, and he explained that the number one cause
2 of death is not cancer now. It's bacterial. And that
3 comes also from the water as well. And they were
4 inventing a filter that could filter out as much
5 bacterial particles as possible. Not all of them, but
6 he showed us a diagram of this much in the water versus
7 this much in the water now, what's happened currently.

8 So what I found out was, there were cities that
9 wanted to change. And what I hear from you is, what we
10 should find out is what tank are they using now. Not
11 about the old tanks. We hear, okay, they solved the
12 problem, they moved it. But are those tanks going to
13 move and are they going to leak as well, right? So we
14 have to find that out. We have to find out, also, that
15 since traditional ideas don't work, we don't want to,
16 possibly, we don't want to, but if we do move it, the
17 next place, like you said, may leak as well.

18 COMMITTEE CHAIR: Please summarize, please.

19 MS. WENNICK: Okay. So I think the best thing to
20 do is we find an interim solution, with the money that
21 you spoke about, the budget. We have a Plan B. Right
22 now, with the bureaucracy, it's taking too much time.
23 We have a Plan B, an interim phase where both come
24 together, they use those funds. In Paris, for
25 instance, they have an instantaneous terrorist

1 provision that if they see a leak in the water, they
2 can shut off that particular location. And so we don't
3 have to wait months, years for responses from both
4 sides. We know tomorrow we are protected. And that
5 might ease the people. So that is most important to
6 me, right now.

7 'Cause I have a 14-year-old daughter, and I'm
8 concerned about her every day about the water. So if
9 we hear it's already leaking and it's being monitored
10 monthly, maybe we provide a system where we do have the
11 same system as Paris, and we're able to just be able to
12 shut it off and have an interim where the water comes
13 from somewhere else. 'Cause 75 percent of the water is
14 coming from somewhere else, and 25 percent is provided
15 through the aquifers.

16 The other thing I wanted to just mention is, we
17 have the alternatives. And we just have to put our
18 minds together and say, okay, rather than say do this,
19 do that, let's maybe shift it to another position, and
20 say if somebody else did it, let's see what they did
21 and what did they use. 'Cause maybe you could even
22 replace it with those tanks.

23 I mean, I'm not saying to leave it there, I'm
24 not saying to relocate it, 'cause you may relocate it
25 and you may have a leak at the next place. But, you

1 know, these are all questions we have to answer. But
2 we do have to find, I think, an interim phase. We
3 really need to focus on that. Because that's what's
4 happening right now. We can't wait five, ten years,
5 months and so on, for this to keep happening. We have
6 to find a Plan B. And we have to be able to protect
7 everybody, even tomorrow. And it has been done. I'm
8 just going to share with you, it's been done.

9 I must have experienced 30 different countries
10 talk about their problems. And everybody come
11 together. Fifteen-minute talks, ten seats per table,
12 and everybody discussed problems and solutions, and
13 people came to the table and they were from all over
14 the world, and it's possible.

15 COMMITTEE CHAIR: Thank you.

16 MS. WENNICK: Thank you.

17 COMMITTEE CHAIR: That's the list of comments. Are
18 there any others that did not sign up? Ma'am?

19 MS. TOWNSEND: Hi. My name is Marti Townsend. I'm
20 Director for the Sierra Group of Hawaii. I just have a
21 clarifying question regarding Slide 15. I just wanted
22 to know, to make clear, was there any notification
23 given to the contested -- those who requested a
24 contested case hearing? From Slide 15, the July 16th
25 letter. The July 16 letter. That one.

1 COMMITTEE CHAIR: And so what was the question?

2 MS. TOWNSEND: Was there any notification given to
3 the Sierra Club or anybody who requested a contested
4 case hearing?

5 COMMITTEE CHAIR: I have to check with the staff.
6 Was there a notification?

7 MS. KWAN: No. I did not put it on the website or
8 I did not make any notification.

9 MS. TOWNSEND: And in the course of the meetings
10 that you and I had over the summer, the email
11 correspondence, it never came up that you thought that
12 it would be something that we would want to know about?

13 COMMITTEE CHAIR: I don't recall that. But if I
14 did, I apologize for that, but, yes.

15 MS. TOWNSEND: Okay. Thank you very much.

16 COMMITTEE CHAIR: Thank you. Before we adjourn,
17 Wayne Hargrove would like to give one last clarifying
18 remark.

19 MR. HARGROVE: I just wanted to address a question
20 that was -- or readdress a question that was raised
21 earlier. I believe it's Deputy Director Manuel; is
22 that correct? Again, thank you for the question. This
23 is with respect to the time period for the Department
24 to review an application for a permit. I believe the
25 question was, is there a specific time period for the

1 turnaround? The answer is, by rule, there is a 180-day
2 turnaround for the Department. But I viewed the
3 question to be in the context of what was discussed
4 previously, which is the request for the contested
5 case, which is what Marti just referred to.

6 So without getting into all of the weeds with
7 respect to the legal procedures that are still being
8 evaluated, again, there are ongoing discussions between
9 the Department of Health and the requestor of the
10 contested case, which is the Sierra Club, and this is
11 not the appropriate forum for an in-depth discussion
12 about where we are with respect to that discussion and
13 where we are procedurally.

14 But I did want to acknowledge the fact that the
15 rules do actually contain that language that does have,
16 under normal circumstances, there's a provision in the
17 rules that acknowledges when an application is deemed
18 complete by the Department of Health. If the
19 Department is not acted on that permit, the application
20 is deemed -- or, I'm sorry, the permit is, in effect,
21 approved by the Department.

22 So, again, the context of this whole entire
23 discussion about where the Department is, one, they
24 continue to review the application, but in the context
25 of the request of contested case.

1 MR. MANUEL: I just wanted to say, thank you for
2 the response. I just wanted to see. So just to
3 clarify, an application was submitted. What date was
4 that submitted to Department of Health?

5 MR. HARGROVE: Good question. My understanding is,
6 the application was initially received in March of this
7 year. The Department requested some additional
8 information and some clarification, and actually I
9 believe some additional materials. And that
10 information was provided by the Navy, and I believe --

11 MR. MANUEL: Was deemed complete at what date?

12 MR. HARGROVE: Correct. May 22nd, I believe, is
13 the -- and I think it's, in fact, in that letter
14 that --

15 MR. MANUEL: In that letter?

16 MR. HARGROVE: Yeah.

17 MR. MANUEL: Okay.

18 MR. HARGROVE: Yeah.

19 MR. MANUEL: Can we get a copy of that letter?

20 MR. HARGROVE: Yeah, absolutely. And just to
21 address the question of what this letter is, this
22 letter, the effort of this letter was mainly to reflect
23 the status quo.

24 CAPT. DELAO: It's the 23rd.

25 MR. HARGROVE: Is it the 23rd? Thank you. I can't

1 read that from here.

2 CAPT. DELAO: No worries.

3 MR. HARGROVE: May 23rd, I guess it would be.

4 So the purpose of this letter was just to
5 reflect the fact that the operations at Red Hill were
6 being viewed by the Department of Health as status quo,
7 which is to say it's an existing facility, it was
8 already operational. The Department is more accustomed
9 pursuant to the rules to receiving applications for new
10 facilities that are not operational, you know, for
11 tanks to be installed, for which there was no previous
12 tank, or a renewal of a permit. So this is a unique
13 situation where it's a new permit for an existing
14 facility.

15 MR. MANUEL: Thank you. And so with that in mind,
16 the 180-day deadline would be like around November.
17 But what you said was, the rules themselves say without
18 an actual approval or response from the Department of
19 Health, it's an automatic approval? Is that what
20 you're saying?

21 MR. HARGROVE: That's correct.

22 MR. MANUEL: Per the rules?

23 MR. HARGROVE: In other words, if the Department
24 takes no action --

25 MR. MANUEL: It's automatically --

1 MR. HARGROVE: -- and again --

2 MR. MANUEL: -- approved?

3 MR. HARGROVE: Right. And, of course, the rule
4 that we were referring to, was written long before
5 there was any thought to the Navy's facility of Red
6 Hill being required to even have any permit.

7 MR. MANUEL: I understand.

8 MR. HARGROVE: Right.

9 MR. MANUEL: Okay.

10 MR. HARGROVE: So -- yeah. It's important to
11 understand that that rule wasn't really ever in, you
12 know, the design to address this particular situation.
13 And then, more specifically, the rules do not address a
14 situation where there's a contested case being
15 requested for a permit for an, again, an existing
16 facility that has yet to be permitted.

17 MR. LAU: Wade, just to clarify, what you're
18 saying, then, is after November, say around
19 Thanksgiving, because 180-day period would have ended
20 from May 23rd of this year, that the Red Hill permit
21 application is not going to be deemed automatically
22 approved?

23 MR. HARGROVE: It is not the intent at this time
24 for the Department to automatically approve the permit,
25 and that is because there is a request for a contested

1 case.

2 MR. LAU: So does the request for a contested case
3 put a stay on the action until the contested case
4 request is addressed?

5 MR. HARGROVE: And with all due respect, that is a
6 very good question and I'm not at liberty to render a
7 legal opinion on that question, right now.

8 MR. LAU: When will you be at liberty to share with
9 the -- I know the Sierra Club made the request and
10 Board of Water Supply actually asked to be informed of
11 the status of the contested case. May I ask so, from
12 you or Keith, when will we be able to be informed on
13 the status and what the Department decides to do in
14 this situation?

15 MR. HARGROVE: Well, again, the Department of
16 Health is in discussion with the Sierra Club. The
17 Sierra Club is here. This is a contested case. It is
18 a legal matter. And it's not -- I mean it is not a
19 subject about which I feel at liberty to discuss in the
20 forum.

21 MR. LAU: But just, for the record, on behalf of my
22 customer, my rate payers for the Board of Water Supply
23 and the importance of this matter to our community's
24 drinking water resource, we would like to request to be
25 informed.

1 MR. HARGROVE: Well, as I mentioned earlier, the
2 Department of Health is in receipt of your letter
3 requesting to be informed and updated on the status of
4 the contested case hearing --

5 MR. LAU: And I'd like to clarify --

6 MR. HARGROVE: -- we certainly will.

7 MR. LAU: -- that the request be -- be informed
8 before a decision is made by the Department of Health?

9 MR. HARGROVE: Absolutely. Absolutely. And as a
10 point in fact, just to be perfectly clear about this,
11 no decisions have been made. The Department of Health
12 and the Sierra Club are negotiating how to proceed
13 forward.

14 MS. TOWNSEND: And the negotiations assume that
15 there would be full disclosure about whatever is going
16 on. (Inaudible) happening at this point, so I really
17 want to put a caveat to the public in terms of whatever
18 conversations you had, whether there was not enough
19 full disclosure there, and so don't give anybody the
20 impression.

21 MR. HARGROVE: I'm not at full disclosure about --

22 MS. TOWNSEND: I can't believe that we requested a
23 contested hearing --

24 COMMITTEE MEMBER: Mr. Chair, point of order. She
25 doesn't have the floor.

1 MR. HARGROVE: Okay, wait. This isn't --

2 COMMITTEE MEMBER: You're going to give her
3 permission --

4 MR. HARGROVE: -- the time or place --

5 COMMITTEE MEMBER: -- to have her come --

6 MR. HARGROVE: -- I don't think --

7 COMMITTEE MEMBER: -- to the microphone.

8 MR. HARGROVE: -- for this discussion, so. But if
9 there were any questions about the process for review
10 of an application, I'd be happy to -- okay. Thank you.

11 COMMITTEE CHAIR: Okay. Before we adjourn, I want
12 to just thank the Task Force members for their
13 participation and their spirited questions and
14 comments. Thank you for your patience, as well as the
15 audience. We want to get the public comments in as
16 much as possible. I think we did that. So Task Force
17 meeting for 2019 is adjourned. Thank you.

18 (The proceedings adjourned at 11:54 a.m.)

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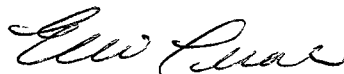
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C E R T I F I C A T E

1
2
3 I, Elsie Terada, Certified Shorthand Reporter for
4 the State of Hawaii, hereby certify that the
5 proceedings were taken down by me in machine shorthand
6 and was thereafter reduced to typewritten form under my
7 supervision; that the foregoing represents to the best
8 of my ability, a true and right transcript of the
9 proceedings had in the foregoing matter.

10 I further certify that I am not an attorney for
11 any of the parties hereto, nor in any way concerned
12 with the cause.

13 DATED this 4th day of December, 2019, in
14 Honolulu, Hawaii.

15
16 

17 Elsie Terada, RPR, CSR No. 437
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Aloha

2019 Update

Fuel Tank Advisory Committee (FTAC)

October 17, 2019





Review of Sites

Temporarily out of use (pending decommissioning):

- Kuahua Peninsula (a.k.a. Diesel Purification Plant)

Permanently out of use:

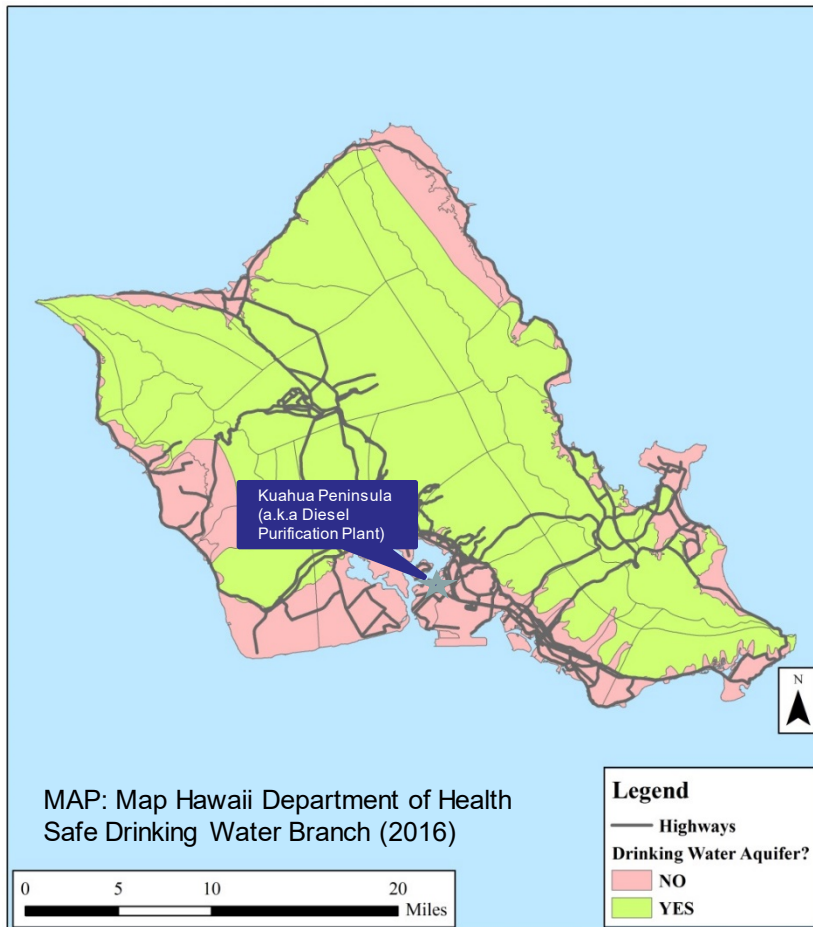
- Hickam POL Annex (Kipapa)
- Hickam POL Annex (Waikakalaua)

Currently in use:

- Pacific Missile Range Facility
 - Red Hill Underground Storage
-



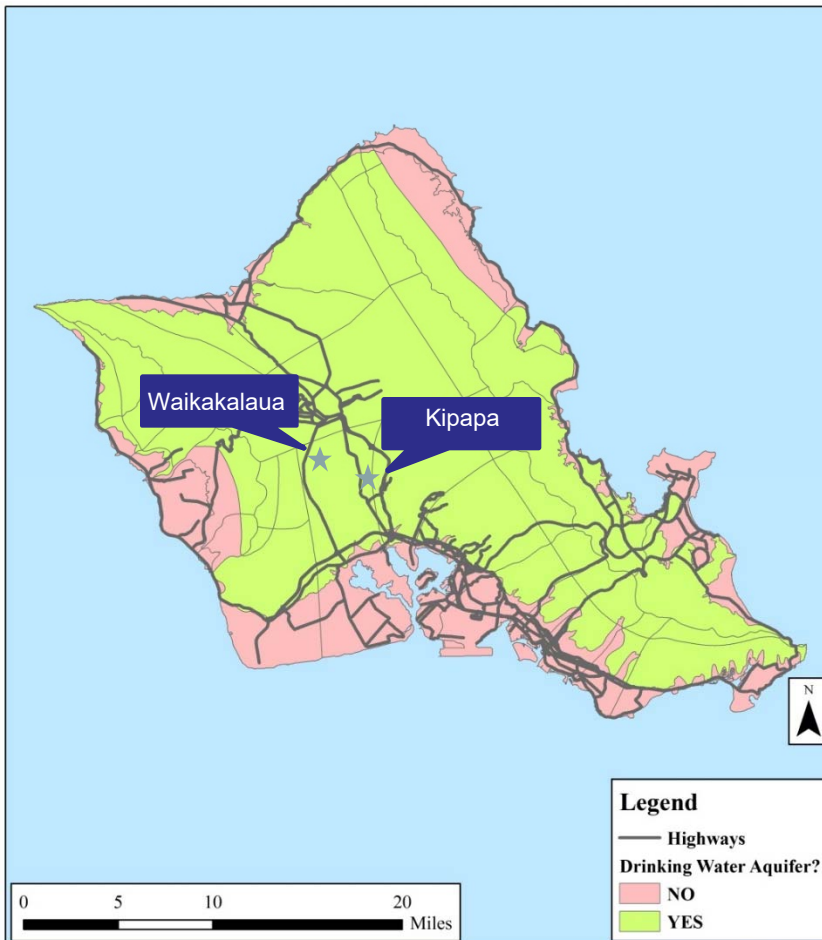
Kuahua Peninsula (a.k.a Diesel Purification Plant)



- Contract in progress to empty, clean, cap, and secure eight USTs and associated piping
- Area development plan includes removing the USTs and tank system, no timeline yet for the demolition



Hickam Fuel Annexes



Kipapa:

- Monitored natural attenuation enhanced with bioventing (currently shutdown)
- Annual groundwater monitoring.
- When sample criteria are met, surface water and sediment sampling.

Waikakalaua:

- A Record of Decision approved and signed by DOH on 19 Oct 2009 with a no further action decision



Pacific Missile Range Facility



PMRF:

- All tanks at PMRF currently in use continue to successfully pass monthly release detection evaluation





Red Hill Bulk Fuel Storage Facility

Navy Update on the Administrative Order on Consent (AOC)



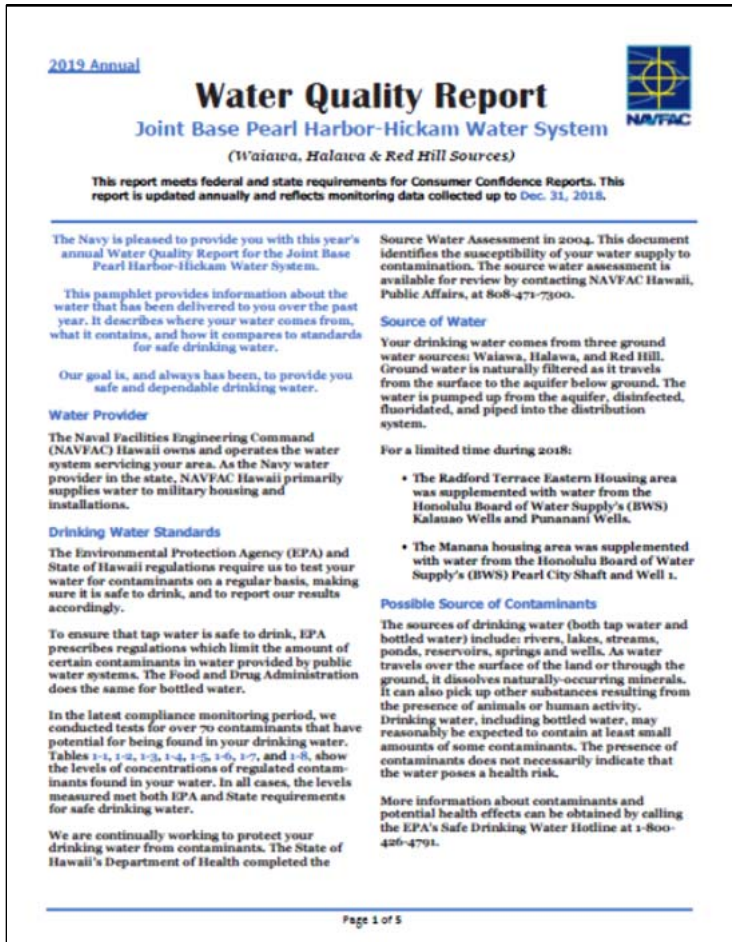
Red Hill Bulk Fuel Storage Facility Update on AOC Actions

Actions completed since last meeting:

- Submittal of Quantitative Risk and Vulnerability Assessment Phase 1 (May 2019)
- DOH/EPA conditional approval of Quantitative Risk and Vulnerability Assessment Phase 1 (September 2019)
- Submittal of Destructive Testing Results Report (July 2019)
- Updated submittal of Groundwater Conceptual Site Model (July 2019)
- Installation of Red Hill Monitoring Well Nos. 14 and 15 (March & Aug 2019)
- Submittal of Tank Upgrade Alternatives (TUA) and Release Detection Decision Documents (September 2019)



Red Hill Bulk Fuel Storage Facility Update on AOC Actions

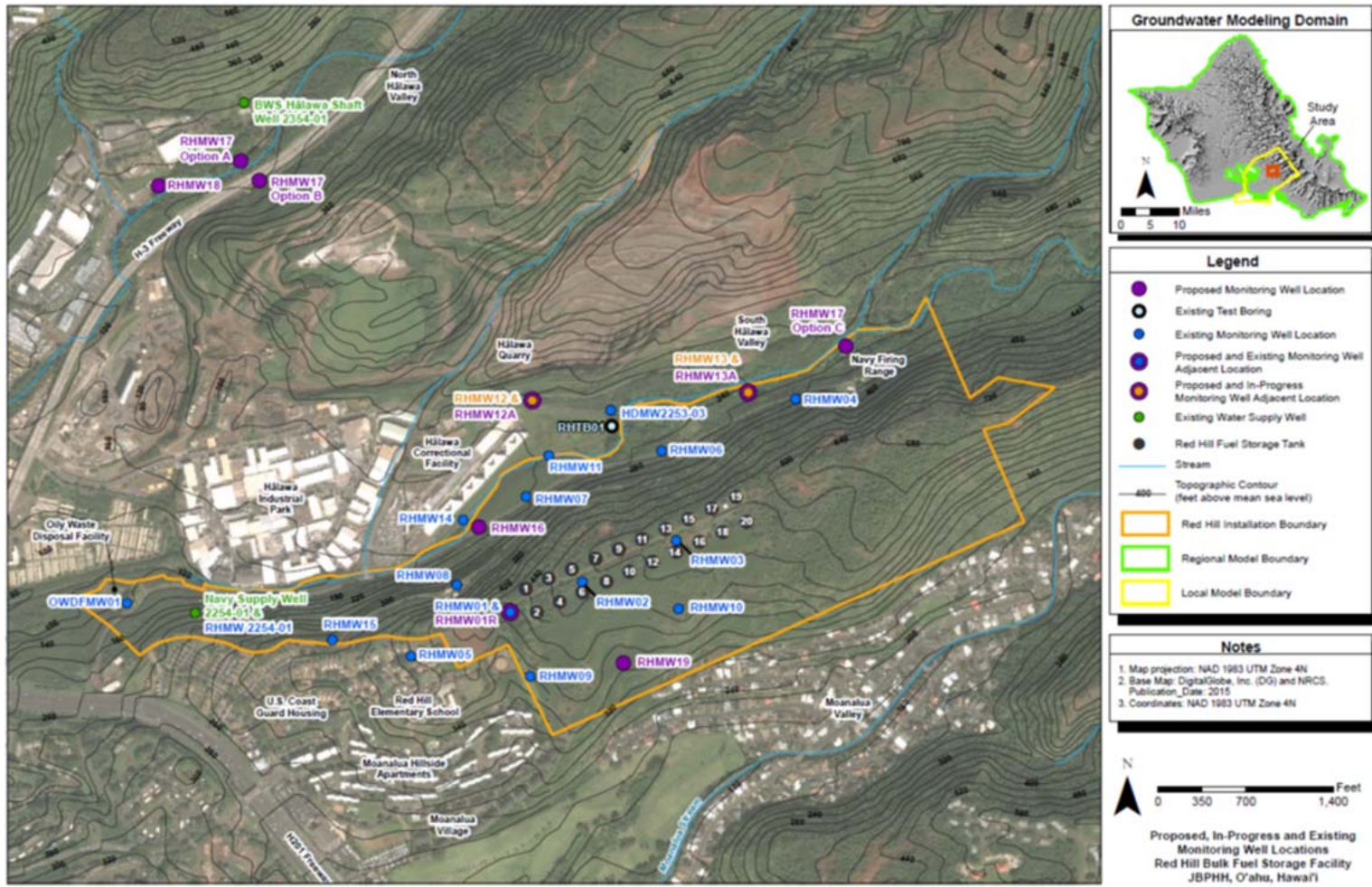


Ongoing work:

- Semi-annual Tank Tightness Testing
- Continued Updating of Groundwater Conceptual Site Model
- Installation of Red Hill Monitoring Well Nos. 12 and 13
- Ongoing Groundwater Modeling Working Group Collaboration with BWS, UH, USGS, DOH, and EPA
- Quarterly Groundwater Monitoring
- Monthly Soil Vapor Monitoring
- Annual Water Quality Reporting
- Monthly Water Interface Testing
- Annual Split Sampling
- Synoptic Water Level Study



Red Hill Bulk Fuel Storage Facility Groundwater Monitoring Wells





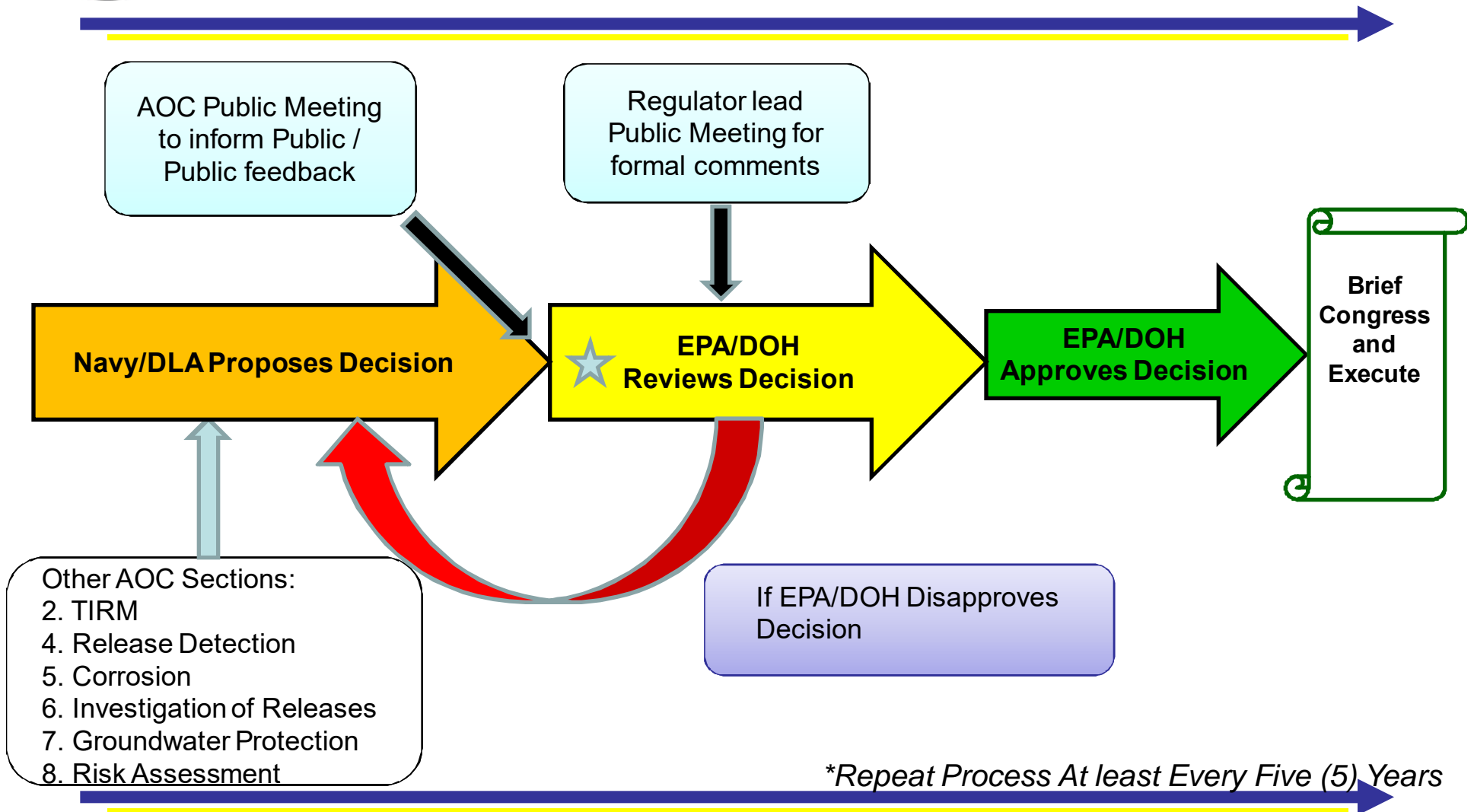
Red Hill Bulk Fuel Storage Facility Update on AOC Actions

Actions scheduled for completion prior to next meeting:

- DoD Strategic Fuel Storage/Distribution Analysis Study
- TUA and Release Detection Decision Document Review and Comment from EPA/DOH
- Destructive Testing Results Report Acceptance
- Continued Execution of Long-term Quarterly Groundwater Monitoring and Monthly Soil Vapor Monitoring
- Groundwater Flow Model Report
- Investigation and Remediation of Releases Report
- Installation of additional Red Hill Monitoring Wells
- Semi-annual Tank Tightness Testing
- Water treatment plant planning



TUA Decision Process





TUA Decision Layers of Protection

PREVENTION

1. Improving Tank Inspection Repair and Maintenance Program continuously
2. Recoating tank interior steel liners to prevent corrosion as specified by coating specialist
3. Decommissioning nozzles (piping at bottom of tank) to reduce risk
4. Enhanced contractor qualification process to improve tank inspection and repairs
5. Updated processes and procedures for inspection, testing, quality control, quality assurance
6. Upgraded procedures for returning tanks to service
7. Revised and standardized operator training

DETECTION

1. Conducting continuous (versus monthly) soil vapor monitoring
2. Conducting daily visual inspection of pipeline
3. Conducting manual fuel inventory trend analysis
4. Installing permanent enhanced release detection system in each tank
5. Increased tank tightness testing from annual to semi-annual, twice the state requirement
6. Improved fuel inventory monitoring using automated fuel handling equipment
7. Increased groundwater monitoring wells from eight to 15 since 2014; add eight more by 2021

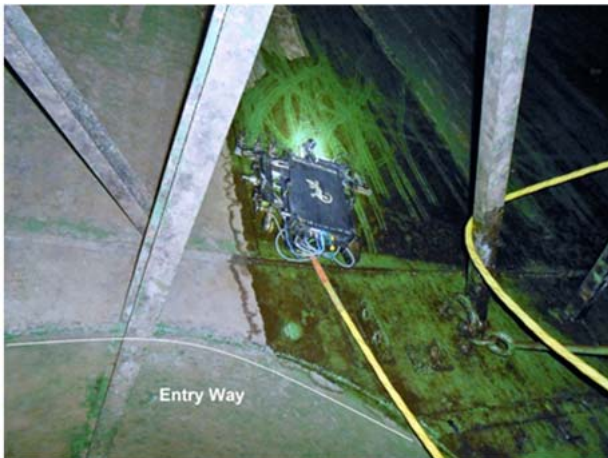
MITIGATION

1. Determining feasibility for potential construction of water treatment plant
2. Improving release response procedures continuously



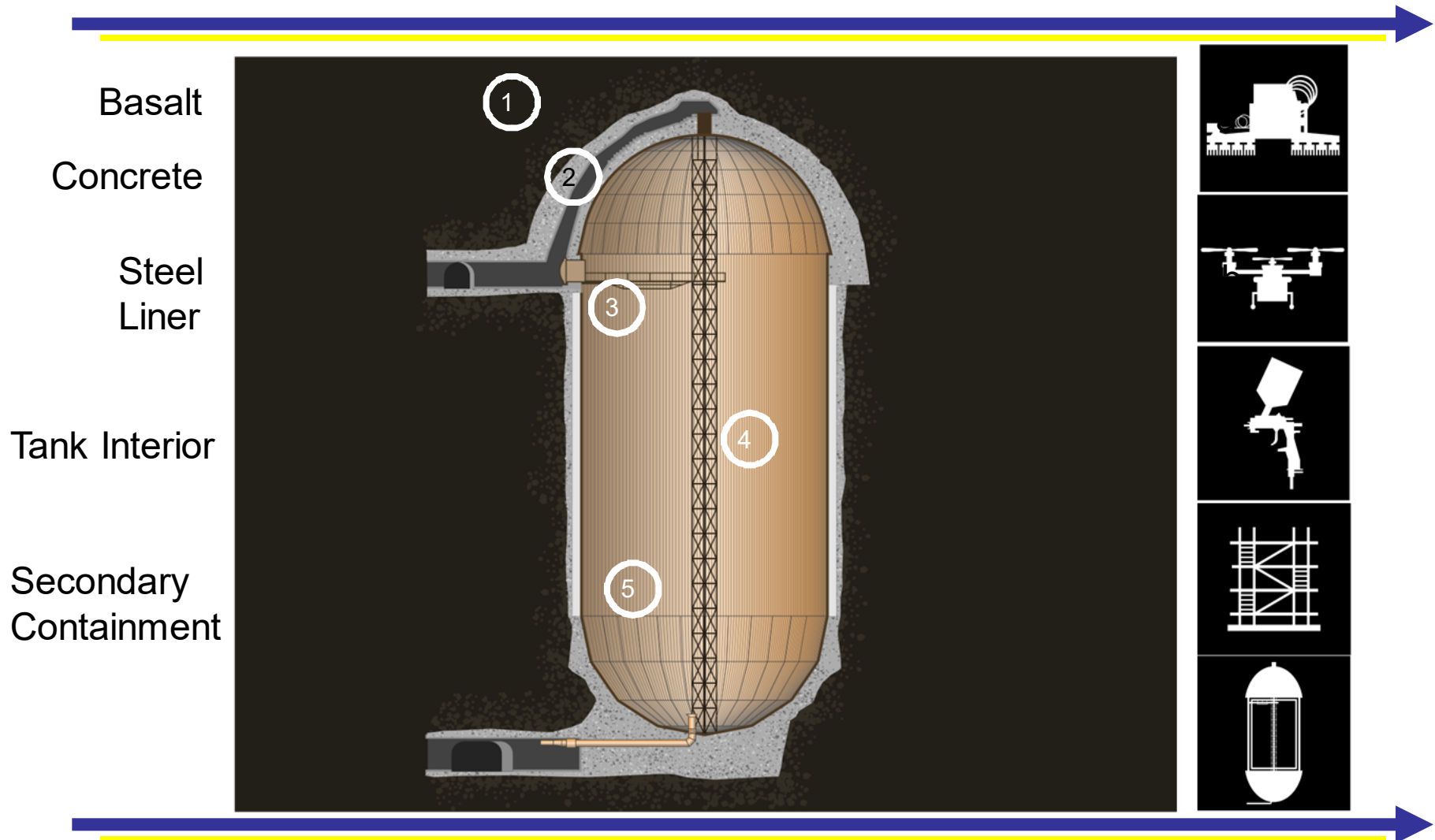
Red Hill Bulk Fuel Storage Facility Industry and Academia Engagement

- Robotic crawler demonstration (14 MAR 2019)
- Sources sought notification (17 APR 2019)
- Industry day (19 JUN 2019)
- Drone demonstration (23 JUL 2019)



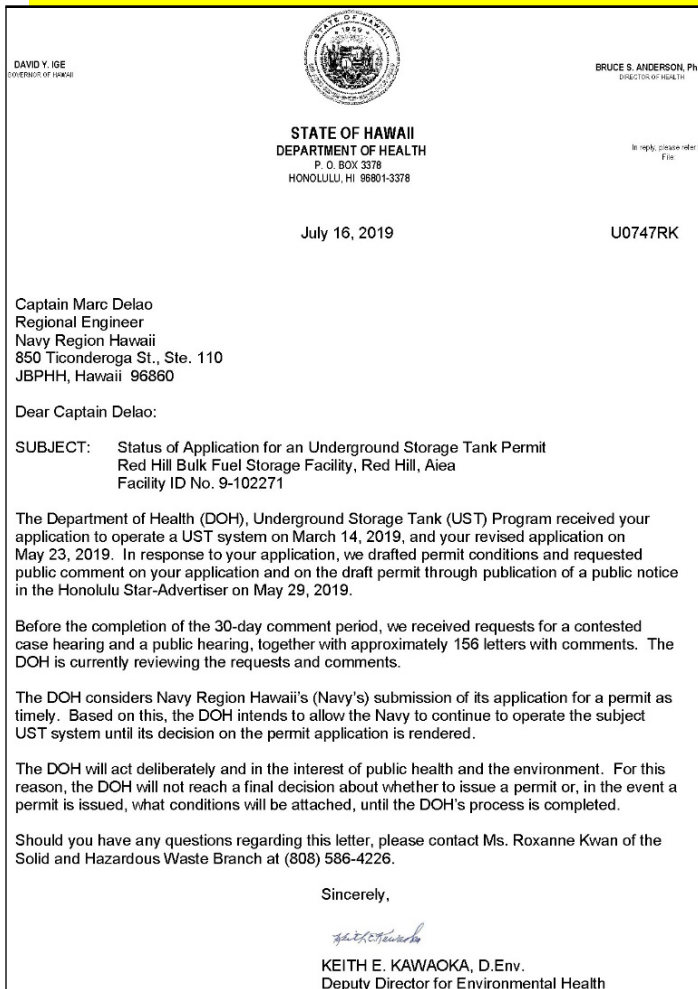


Navy/Industry/Academia Collaboration





Status of Operating Permit



- On time submission of permit application by Navy
- Application under review by DOH
- Authority to Operate letter issued by DOH 16 July 19 pending final review of operational permit



Red Hill Bulk Fuel Storage Facility Clean, Inspect and Repair Status



- Tanks 5, 13, and 17 currently undergoing CIR process
- Tank 5 scheduled to be returned to operation in 2020
- Tank 14 awaiting contract mod award before continuing construction
- Tank 4 currently next scheduled tank to undergo CIR process
- Revising CIR schedule to focus on Tank 18, rather than Tank 4



Summary



- Water continues to be safe to drink
 - Routine water sampling/testing
- Tanks continue to pass semi-annual tank tightness tests
- TUA and Release Detection Decision Document submitted September 2019
- AOC is working
 - Navy/DLA is held accountable to EPA and the State of Hawaii
 - Navy/DLA has met/meeting all AOC deadlines



And Finally.....

We're committed to finding a secondary containment solution

The technology doesn't exist today that would allow Red Hill tanks to be double-walled in a practicable manner. We are absolutely committed to finding a way to provide secondary containment or we will remove the fuel from Red Hill around 2045.



Mahalo

Questions?

