

# Aloha

2019 Update

Fuel Tank Advisory Committee (FTAC)

*October 17, 2019*





# Review of Sites

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Temporarily out of use (pending decommissioning):

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

Permanently out of use:

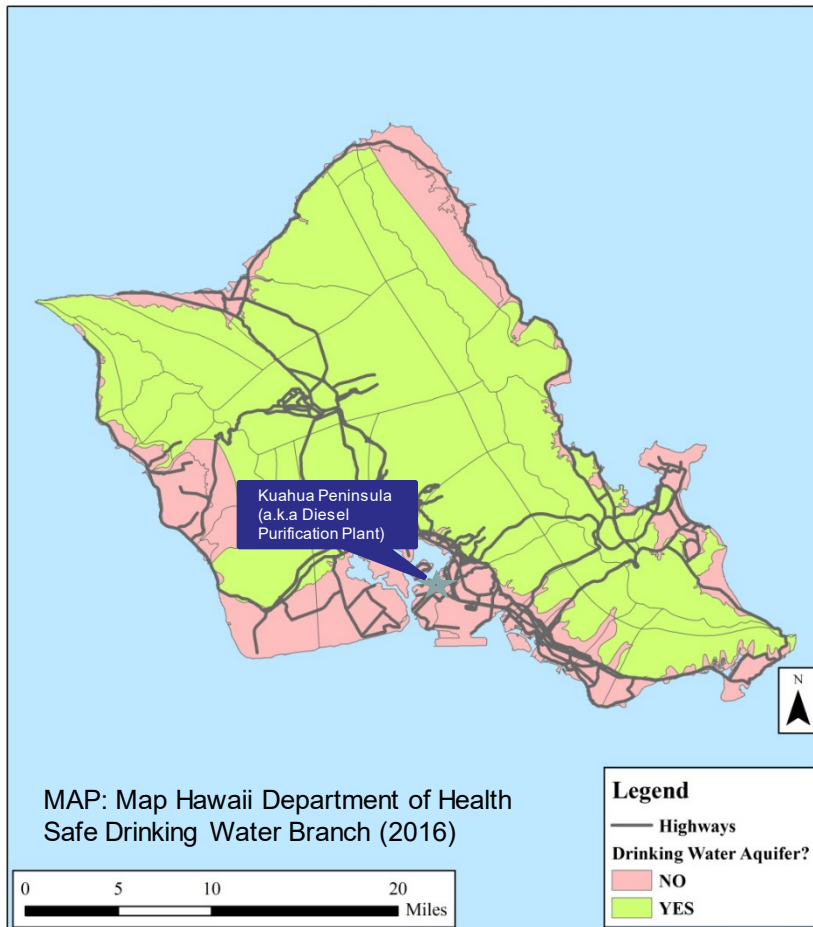
- Hickam POL Annex (Kipapa)
- Hickam POL Annex (Waikakalaua)

Currently in use:

- Pacific Missile Range Facility
  - Red Hill Underground Storage
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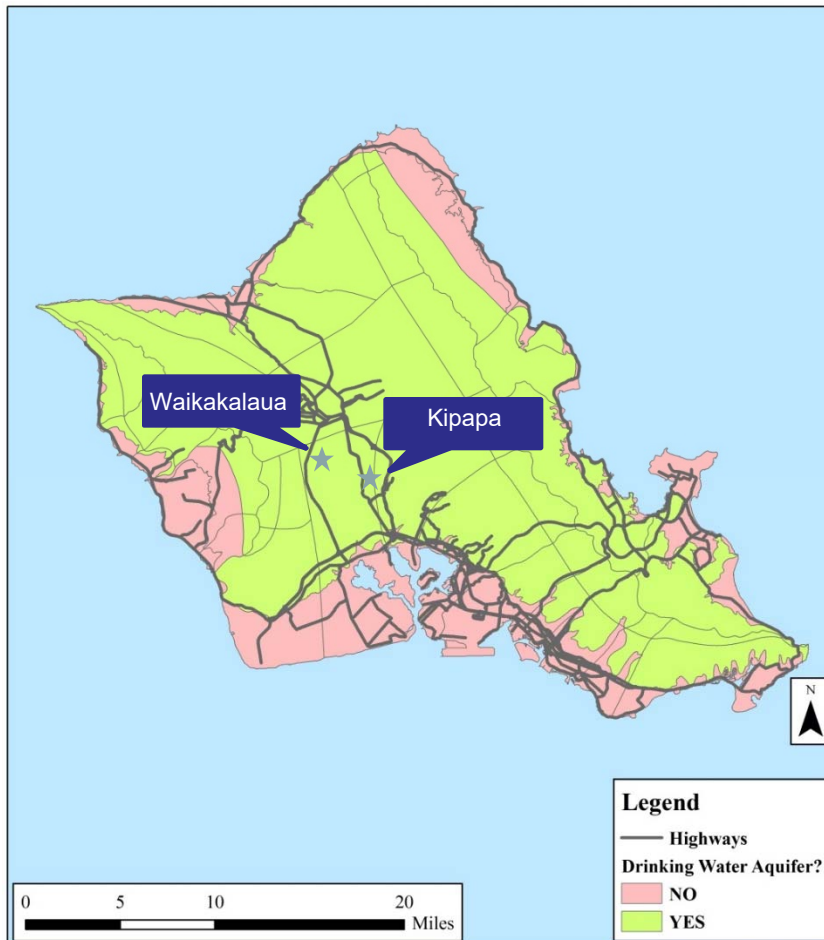
# Kuahua Peninsula (a.k.a Diesel Purification Plant)



- 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**

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## **Navy Update on the Administrative Order on Consent (AOC)**

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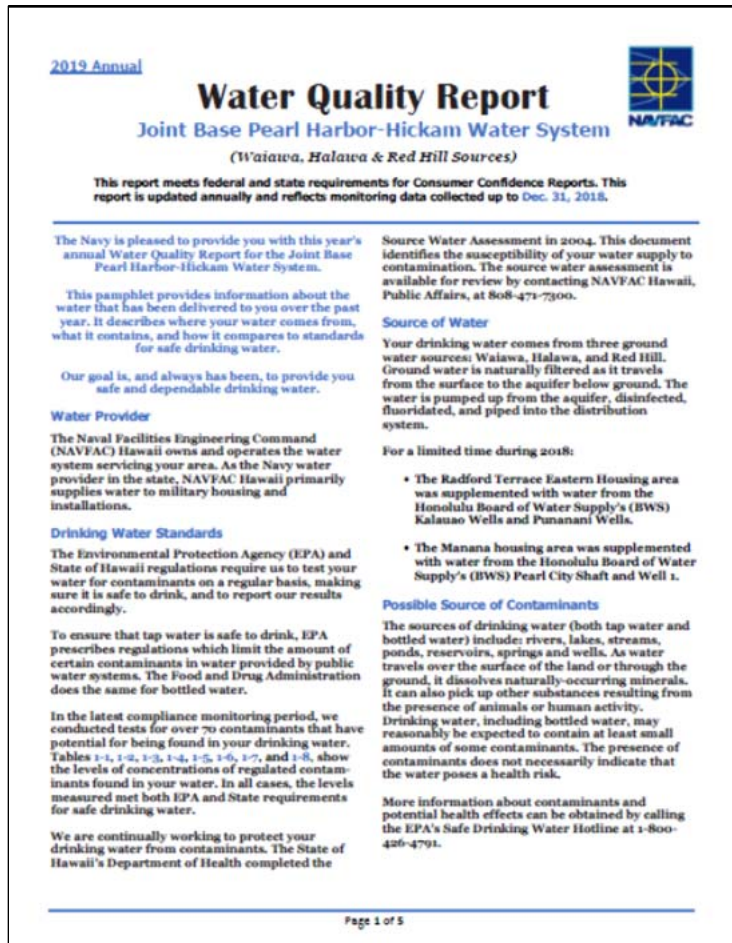
# Red Hill Bulk Fuel Storage Facility Update on AOC Actions

## 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



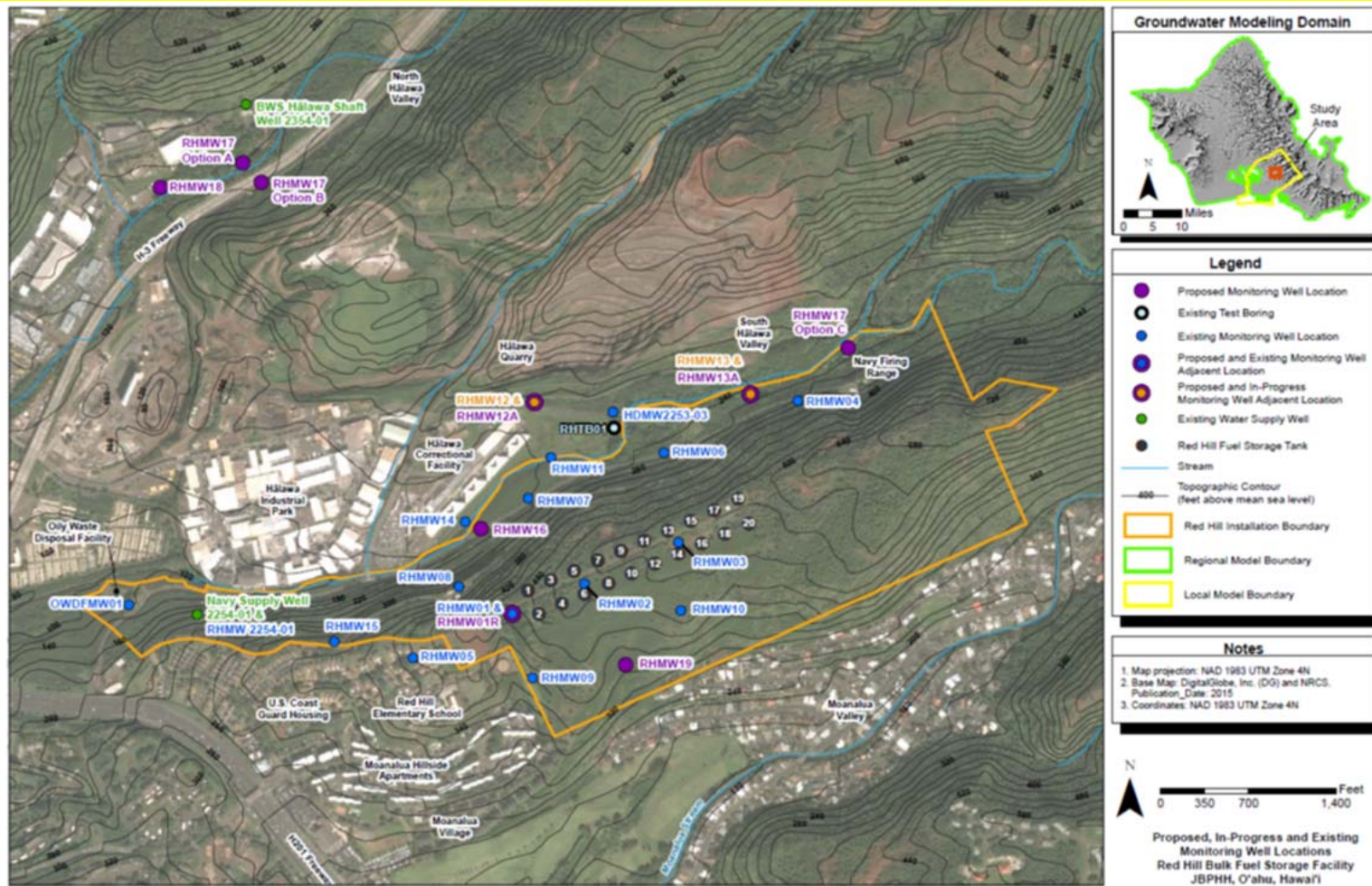
## Ongoing work:

- 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





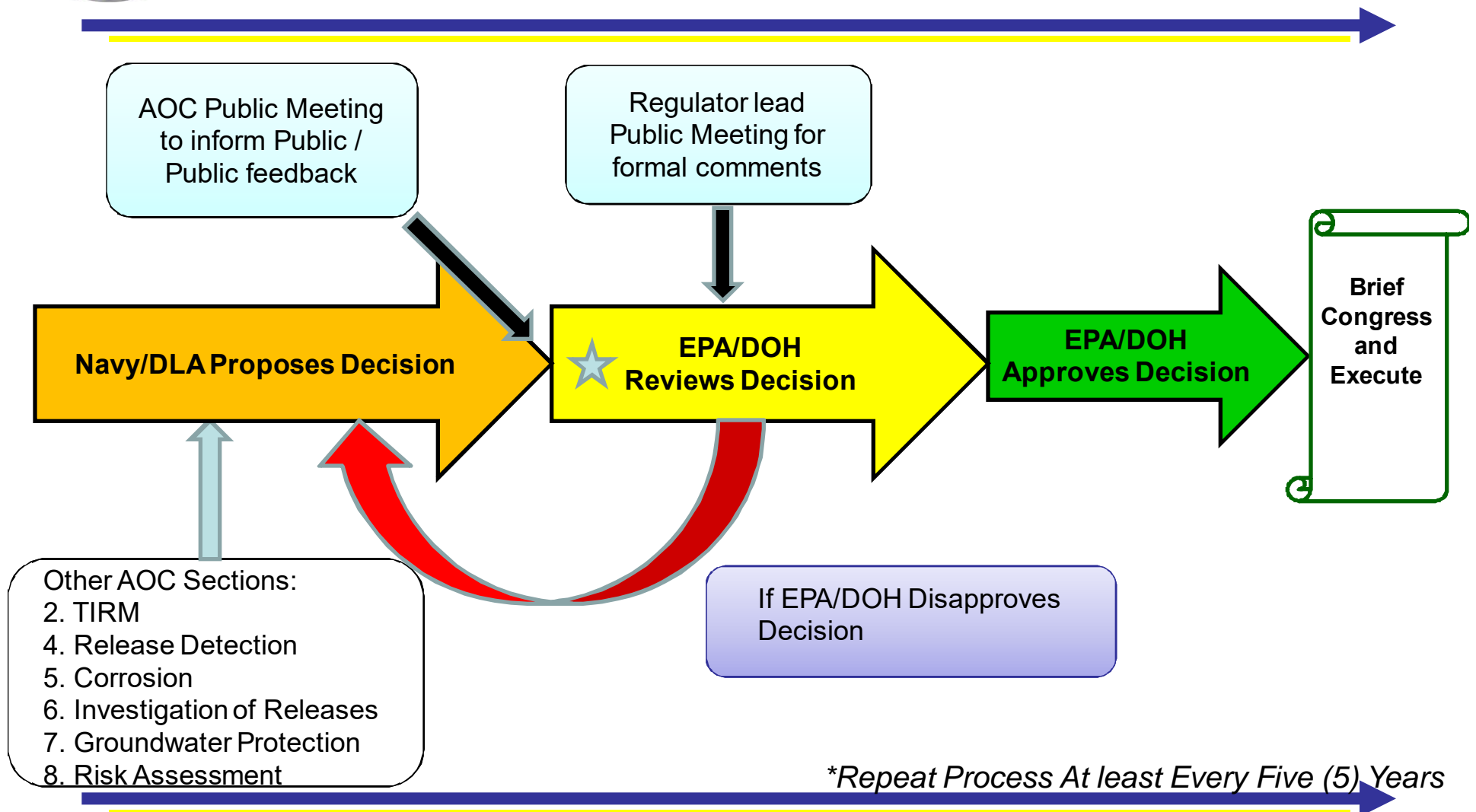
# Red Hill Bulk Fuel Storage Facility Update on AOC Actions

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**

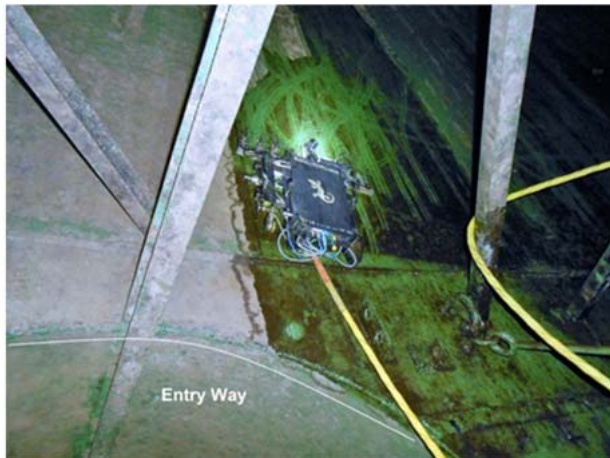
1. Determining feasibility for potential construction of water treatment plant
2. Improving release response procedures continuously





## Red Hill Bulk Fuel Storage Facility Industry and Academia Engagement

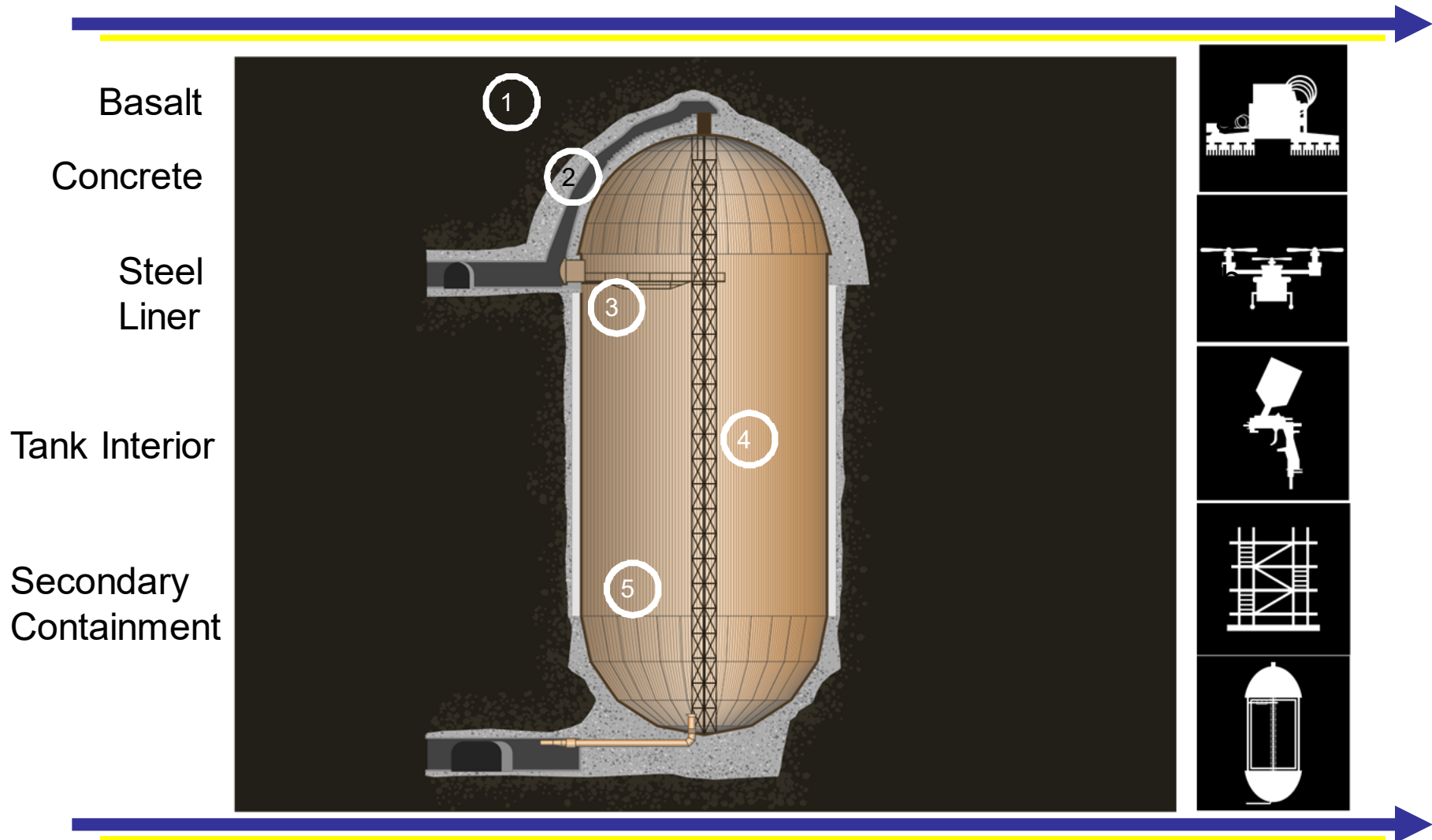
- Robotic crawler demonstration (14 MAR 2019)
- Sources sought notification (17 APR 2019)
- Industry day (19 JUN 2019)
- Drone demonstration (23 JUL 2019)







# Navy/Industry/Academia Collaboration





# Status of Operating Permit

DAVID Y. JOE  
COMMISSIONER OF HEALTH

BRUCE S. ANDERSON, Ph.D.  
DIRECTOR OF HEALTH

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

In reply, please refer to  
File

July 16, 2019 U0747RK

Captain Marc Delao  
Regional Engineer  
Navy Region Hawaii  
850 Ticonderoga St., Ste. 110  
JBPHH, Hawaii 96860

Dear Captain Delao:

SUBJECT: Status of Application for an Underground Storage Tank Permit  
Red Hill Bulk Fuel Storage Facility, Red Hill, Aiea  
Facility ID No. 9-102271

The Department of Health (DOH), Underground Storage Tank (UST) Program received your application to operate a UST system on March 14, 2019, and your revised application on May 23, 2019. In response to your application, we drafted permit conditions and requested public comment on your application and on the draft permit through publication of a public notice in the Honolulu Star-Advertiser on May 29, 2019.


Before the completion of the 30-day comment period, we received requests for a contested case hearing and a public hearing, together with approximately 156 letters with comments. The DOH is currently reviewing the requests and comments.

The DOH considers Navy Region Hawaii's (Navy's) submission of its application for a permit as timely. Based on this, the DOH intends to allow the Navy to continue to operate the subject UST system until its decision on the permit application is rendered.

The DOH will act deliberately and in the interest of public health and the environment. For this reason, the DOH will not reach a final decision about whether to issue a permit or, in the event a permit is issued, what conditions will be attached, until the DOH's process is completed.

Should you have any questions regarding this letter, please contact Ms. Roxanne Kwan of the Solid and Hazardous Waste Branch at (808) 586-4226.

Sincerely,

  
KEITH E. KAWAOKA, D.Env.  
Deputy Director for Environmental Health

- 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.....

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### **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.



A decorative horizontal arrow pointing to the right, composed of a thick blue line and a thinner yellow line below it.

Mahalo

Questions?