

**STATE OF HAWAII
DEPARTMENT OF HEALTH**

P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

**Testimony COMMENTING on SCR45
URGING THE UNITED STATES ENVIRONMENTAL AGENCY AND HAWAII
STATE DEPARTMENT OF HEALTH TO REJECT THE APPROVAL OF A SINGLE
WALL TANK UPGRADE ALTERNATIVE OPTION FOR THE RED HILL BULK
FUEL STORAGE FACILITY AND SUPPORT THE SECONDARY CONTAINMENT
TANK UPGRADE ALTERNATIVE OPTION, OR, IF SECONDARY CONTAINMENT
IS DETERMINED TO BE INFEASIBLE, THE RELOCATION OF THE FUEL TANKS
AWAY FROM THE AQUIFER**

SENATOR MIKE GABBARD, CHAIR
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

SENATOR CLARENCE K. NISHIHARA, CHAIR
SENATE COMMITTEE ON PUBLIC SAFETY, INTERGOVERNMENTAL, AND
MILITARY AFFAIRS

Hearing Date: 3/13/2020

Room Number: 224

1 **Fiscal Implications:** None.

2 **Department Testimony:** This concurrent resolution requests that the Department of Health
3 (Department) expedite the review of Administrative Order on Consent submissions; and for both
4 the Department and the U.S. Environmental Protection Agency (EPA) to reject the approval of a
5 single wall tank upgrade alternative option for the Red Hill Bulk Fuel Storage Facility and
6 support the secondary containment tank upgrade alternative option, or, if secondary containment
7 is determined to be infeasible, the relocation of the fuel tanks away from the aquifer.

8 The Department recognizes the importance and the public interest in the tank upgrade alternative
9 selection for the fuel tanks at the Red Hill Facility pursuant to the Administrative Order on
10 Consent (Department Docket No: 15-UST-EA-01). As such, the Department and EPA opened a
11 public comment period and conducted a public hearing to obtain public input on the *Tank*
12 *Upgrade Alternatives and Release Detection Document*, submitted by the U.S. Navy and

1 Defense Logistics Agency. The regulatory agencies received over 400 public comments on the
2 Navy proposal, which are currently under review. The Department appreciates and will take the
3 Legislature's position on the Navy's proposal into consideration as we continue our review of the
4 Navy's submission.

5 **Offered Amendments:** None.

6 Thank you for the opportunity to testify on this measure.

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com




March 13, 2020

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Deputy Manager and Chief Engineer 

The Honorable Mike Gabbard, Chair
and Members
Committee on Agriculture and Environment
State Senate
State Capitol, Room 224
Honolulu,
Hawaii 96813

The Honorable Clarence K. Nishihara, Chair
and Members
Committee on Public Safety, Intergovernmental, and
Military Affairs
State Senate
State Capitol, Room 224
Honolulu, Hawaii 96813

Dear Chair Gabbard, Chair Nishihara and Members:

Subject: Senate Concurrent Resolution 45/ Senate Resolution 24: Urging the United States Environmental Protection Agency and the Hawaii State Department of Health to Reject Approval of a Single Wall Tank Upgrade Alternative Option for the Red Hill Bulk Fuel Storage Facility and Support the Secondary Containment Tank Upgrade Alternative Option, or, If Secondary Containment is Determined to be Infeasible, the Relocation of the Fuel Tanks Away from the Aquifer

The Honolulu Board of Water Supply (BWS) strongly supports Senate Concurrent Resolution (SCR) 45/ Senate Resolution (SR) 24. These resolutions are a statement affirming a commitment to preserving and protecting our irreplaceable drinking water resources by urging the United States Environmental Protection Agency (EPA) and the Hawaii Department of Health (DOH) to reject the approval of a single wall tank upgrade alternative (TUA) option for the Red Hill Bulk Fuel Storage Facility (Red Hill).

Article XI, Section 1, of the Constitution of the State of Hawaii states:

“For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii’s ... natural resources, including ...water.” “All public natural resources are held in trust by the State for the benefit of the people.”

The Honorable Mike Gabbard, Chair
and Members
The Honorable Clarence K. Nishihara
and Members
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Article XI, Section 7, of the Constitution of the State of Hawaii, further states:

“The State has an obligation to protect, control and regulate the use of Hawaii’s water resources for the benefit of its people.”

The Navy’s existing single-walled tanks are not protective of our drinking water aquifer or the environment. Laboratory analysis of steel liner samples collected from Tank 14 prove that rusting that leads to through wall holes is taking place on the side of the liner that the Navy cannot inspect nor maintain. These tests also show the Navy’s ability to scan and find areas of the tank that need repairs is inaccurate 50% of the time and both over and underestimate the thickness of the liner. A risk assessment report prepared by the Navy’s consultant portends the chances of future fuel releases occurring as much as a 27% probability of up to 30,000-gallon release in a year in addition to chronic, undetected fuel releases of 5,803 gallons per year (facility-wide). These risks are too high and show the Red Hill tanks do not meet Hawaii law that requires underground tanks be “upgraded ... and operated to prevent releases ... for the operational life of the tank” (Hawaii Revised Statutes, section 342L-32).

A Department of Health (DOH) report indicates the Navy’s explanation of groundwater flow in the vicinity of the tanks is unable to reproduce water levels measured in the field. This data also contains evidence showing groundwater can flow from the facility to the Northwest toward the BWS Halawa Shaft and the Navy’s claims of subsurface geologic features that isolate Halawa Shaft from the tanks is unsupported. The weight of evidence in these reports tell us that the existing single-wall tanks are not protective of the environment. In response, the Navy’s TUA report proposes that the existing single wall tanks combined with leak detection, tank tightness testing, groundwater monitoring, and soil vapor monitoring work together to provide redundant elements of detection and capture “double-wall equivalency” that is equal to a double wall. This explanation is not the same as a tank-within-a-tank structure that contains a secondary containment that prevents leaks from reaching the environment. Leak detection, soil vapor, and groundwater monitoring measure what has already left the tank, not what has not.

The Navy’s use of a water treatment plant to create a “capture zone” around Red Hill to capture fuel that has left the tanks is also relying upon treatment that currently does not exist nor been committed to by the Navy to construct nor proven that it works and the Navy’s commitment to secondary containment or removal the fuel in the 2045 timeframe promise lacks clarity in substance and form. This kind of ambiguity is disconcerting and inappropriate in a decision of such significance to the long-term protection of our groundwater aquifer.

The Honorable Mike Gabbard, Chair
and Members
The Honorable Clarence K. Nishihara
and Members
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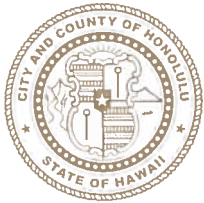
The Board of Water Supply is convinced the existing single wall Red Hill tanks are not protective of our drinking water aquifer and environment. If Red Hill is allowed to continue storing enormous volumes of fuel directly above our sole source aquifer, then it should be done with secondary containment tank-within-a-tank. Otherwise, it should be relocated away from the aquifer.

Thank you for the opportunity to testify on SCR 45 and SR 24.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Ernest Y.W. Lau', written in a cursive style.

ERNEST Y.W. LAU, P.E.
Manager and Chief Engineer



CITY COUNCIL
CITY AND COUNTY OF HONOLULU
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CAROL FUKUNAGA

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TESTIMONY OF COUNCILMEMBER CAROL FUKUNAGA
BEFORE SENATE AGRICULTURE AND ENVIRONMENT AND SENATE PUBLIC SAFETY,
INTERGOVERNMENTAL AND MILITARY AFFAIRS COMMITTEES
March 13, 2020 at 1:45 PM -- Conference Room 224

ON

SENATE CONCURRENT RESOLUTION 45/SENATE RESOLUTION 24

Urging The United States Environmental Protection Agency And Hawaii State Department Of Health To Reject The Approval Of A Single Wall Tank Upgrade Alternative Option For The Red Hill Bulk Fuel Storage Facility And Support The Secondary Containment Tank Upgrade Alternative Option, Or, If Secondary Containment Is Determined To Be Infeasible, The Relocation Of The Fuel Tanks Away From The Aquifer.

Thank you for the opportunity to express my support for **Senate Concurrent Resolution 45** and **Senate Resolution 24**. As Chair of the City Council's Public Infrastructure, Technology and Sustainability Committee, we have firmly upheld the Board of Water Supply's responsibility for protecting Oahu's water resource. During the past two years, the Honolulu City Council has adopted the following policy positions:

- **Resolution 18-266** "*Urging The United States Environmental Protection Agency And The Hawaii State Department Of Health To Reject The Approval Of A Single Wall Tank Upgrade Alternative Option For The Red Hill Bulk Fuel Storage Facility And To Reject The Conclusions Presented In The Groundwater Protection And Evaluation Considerations For The Red Hill Bulk Fuel Storage Facility Report Dated July 27, 2018*" (adopted on March 8, 2019).
- **Resolution 19-270** "*Reaffirming The Council's Position, As Set Forth In Resolution 18-266, Cd1, Adopted On March 8, 2019, Relating To The Red Hill Bulk Fuel Storage Facility Upgrade Alternative Options*" (adopted on November 6, 2019).

I therefore encourage your committees to support a secondary tank upgrade alternative to the Navy's proposed single wall tank upgrade alternative option for the Red Hill Bulk Fuel Storage Facility; or, if secondary containment is determined to be infeasible, relocation of the fuel tanks away from the critical nearby aquifer.

As the Honolulu Board of Water Supply has testified, and the Honolulu Council has endorsed in **Resolution 19-270, CD1**, relocation to a location that is not located over Honolulu's sole-source

aquifer, or secondary containment for the existing UST, would be the preferred means for preventing contamination of Honolulu's water supply.

Testimony submitted during the November 19, 2019 United States Environmental Protection Agency (USEPA) and State Department of Health (DOH) meeting revealed that technology to pursue above-ground storage tanks is well within the Navy's recent expertise and experiences at two major fuel storage facilities at Manchester Fuel Depot in Washington and Defense Fuel Support Point (DFSP) Point Loma in San Diego, California:

- Naval Base Kitsap's Manchester Fuel Depot (Washington state, continental United States): The Navy constructed 33 concrete USTs (1940's-1950's), with added construction of underground facilities and buildings during World War II.

Acknowledging that the "economics don't pencil out" for inspecting, cleaning, and repairing its aging USTs (costing roughly \$2-3 million per tank), the Navy authorized replacement of its concrete USTs with state-of-the-art steel aboveground storage tanks ("AST") between 2016-2018.

The fuel depot is located near aquatic/nearshore areas and the Manchester Regional Fuels Manager Glenn Schmitt explained that USTs "have inherent environmental risks...and changing to ASTs "will allow us to continue servicing the fleet while being environmentally sound and good, responsible stewards."

According to 2017-2018 media reports (*articles attached*), construction would begin as soon as 2021 and continue for 6 years to 2027. It would cost an estimated \$186 million to construct the new tanks and decommission the original tanks

- Defense Fuel Support Point (DFSP) Point Loma, California: When 500,000 to 1.5 million gallons of fuel seeped into the ground below a fuel depot at Point Loma in 2006, the Navy responded with a plan that required less than ten years to implement.

In 2008, the Defense Logistics Agency committed \$195 million to modernize and replace the existing facilities and infrastructure. The project to demolish the old site and replace it with upgraded, environmentally sound facilities took five years and was completed in 2014. This state-of-the-art facility became the first fuel facility ever to achieve LEED certification, and made history as the DLA's largest new fuel facility replacing a pre-World War II fuel storage facility.

Navy Fuel Depot to replace WWII-era storage tanks

Julianne Stanford, jstanford@kitsapsun.com Published 10:41 a.m. PT Dec. 5, 2017 | Updated 10:53 a.m. PT Dec. 5, 2017

As Naval Base Kitsap's Manchester Fuel Depot celebrates its 75th year, the installation will begin replacing its original cement underground fuel storage tanks with state-of-the-art, above-ground steel tanks. "We believe modernization is what allows us to meet our mission requirements," said Manchester's Regional Fuels Manager Glenn Schmitt with Naval Supply Systems Command Fleet Logistics Center Puget Sound. "It will allow us to continue servicing the fleet while being environmentally sound and good, responsible stewards.

The fuel depot is the Department of Defense's largest single-site fuel terminal in the United States. The depot provides military-grade fuel, lubricants and additives to U.S. Navy and Coast Guard vessels, and to those from allied nations like Canada.

The depot currently stores 1.8 million barrels of fuel. That's more than 75 million gallons, or roughly 1,200 gas stations worth of fuel, Schmitt estimated.

The Navy hopes to replace all of its 29 underground concrete fuel storage tanks, nine of which hold diesel fuel marine and 20 of which hold carrier jet fuel, which date back to when the installation began service in the early 1940s.

"This is the culmination of multiple years of planning by us and our engineering contractor partners," Schmitt said. "The infrastructure is 75 years old. The maintenance on these underground concrete tanks is a lot."

Schmitt said the tanks have to be inspected, cleaned and repaired at least once every 10 years, which costs \$2 million to \$3 million each per tank. "The economics don't pencil out," Schmitt said.

The command also seeks to mitigate the potential risks of storing fuel underground. "Underground storage tanks have inherent environmental risks and so we're trying to avoid those risks by bringing the tanks above ground," Schmitt said.

Each of the six proposed new tanks will hold an estimated 5.25 million gallons of either carrier aircraft fuel or diesel fuel marine. The tanks will be at least one and a half times bigger than any of the installation's current above ground storage tanks, Schmitt said.

Schmitt said the tanks will likely be connected to the installation's existing network of pipelines and pumps. While many of those pipelines are originals, Schmitt said "they are in awesome shape." The tanks will come with new safety monitoring technology for incidents such as leaks and fire management. The tanks will be installed in phases, and the Navy will begin to close and phase out the old underground tanks as the new ones become functional.

The new tanks will change how "we move fuel to the pier, how we manage the tanks. It'll change all of our environmental planning documentation. It'll change our plans for how we respond to worst-case spills," Schmitt said, "but all of those things that will change will be developed during the construction process." The project is still in its preliminary stages, including drafting designs, conducting environmental studies and considering any seismic vulnerabilities.

"Things may yet change because we are still preparing a package to go before Congress," Schmitt said. "We intend to submit that sometime in the next year."

Although the funding for the project has not yet been secured, Schmitt estimated if things go according to plan, construction on the new tanks will begin around fiscal year 2021. It would take an estimated five to six years to complete the project at a cost of \$150 million to \$200 million.

Schmitt said the Navy will be in contact with the surrounding community and stakeholders for comment and input on the project. He said the benefits of the upgrades at the fuel depot will spill over into the installation's surrounding communities.

"It's going to have the impact of a large construction project in the community," Schmitt said. "There's going to be a lot of contractors, a lot of movement of material. There are going to be folks who are looking to go get dinner. They're going to need support." But once the project is complete, "it will be invisible to the community because we'll be operating behind the fence, kind of like we are now."

Read or Share this story: <http://www.kitsapsun.com/story/news/local/2017/12/05/manchester-fuel-depot-plans-replace-wwii-era-underground-storage-tanks/915357001/>

Navy seeks to upgrade Manchester Fuel Depot storage tanks

[Julianne Stanford](#), Kitsap Published 5:45 p.m. PT June 19, 2018



(Photo: LARRY STEAGALL)
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After [months of planning](#), the Navy is a step closer to replacing the original World War II-era cement underground fuel storage tanks at Naval Base Kitsap's Manchester Fuel Depot with state-of-the-art, above-ground steel tanks.

Improvements to Manchester's fuel tanks would allow the installation to better meet the Navy's fuel storage and distribution requirements [in a more cost-effective manner](#) and comply with recent environmental monitoring policy changes, according to [a draft environmental assessment](#) released last week.

"(We're replacing the tanks) because of the increased environmental requirements for underground storage tanks, the very high cost of maintaining the concrete underground tanks to assure their integrity and the need to minimize the time out of service for maintenance," said Manchester's Regional Fuel Manager Glenn Schmitt, with Naval Supply Systems Command Fleet Logistics Center Puget Sound.

Costly Change

In 2015, the Environmental Protection Agency changed monitoring requirements to require underground storage tanks to undergo testing to check their ability to prevent leaks on an annual basis, which resulted in "costly new compliance requirements that negatively affected operations" at the fuel depot, according to the draft.

Almost all of the fuel depot's underground tanks were built in the 1940s, with the exception of a few that were built in the following decade. All of the tanks are single-walled tanks that don't have an interstitial space leaking monitoring system, which is used in modern double-walled underground storage tanks to detect if there's a leak between the two layers of the container.

It takes about four months to perform tank tightness testing on all of Manchester's underground storage tanks to comply with the new testing requirement, which means about 30 percent of the depot's fuel storage tanks are out of commission at any given time, according to the draft.

That has caused operational impacts to the point where it puts the fuel depot "at risk for not meeting its mission of ensuring fuel storage capacity," the proposal said.

Manchester plays a pivotal role in supporting military assets in the region.

MORE: [Feeding the fleet from a park like setting](#)

It is the Department of Defense's largest single-site fuel terminal in the United States and the only military fueling installation in the Pacific Northwest. The depot provides military-grade fuel, lubricants and additives to U.S. Navy and Coast Guard vessels and to those from allied nations like Canada.

The fuel depot currently stores 1.8 million barrels of fuel, which equates to more than 75 million gallons — or roughly 1,200 gas stations worth of fuel.

Larger, above-ground storage tanks?

With the proposal's preferred alternative, the Navy would replace existing underground storage tanks with six larger above-ground storage tanks that each have the capacity to hold an estimated 5.25 million gallons of either [JP-5, a type of carrier jet fuel](#), or F-76, a type of marine diesel fuel.

The 64-foot-tall storage tanks would be surrounded by a secondary containment dike with a remote shutoff for spill containment. New above ground pipes and pumps would be constructed to augment existing tunnel piping to move fuel toward Manchester's loading pier.

GET THE FAST FACTS: [Manchester Fuel Depot](#)

The proposal calls for tank construction to occur in three phases, with two tanks built every two years, which would allow the Navy to continue to meet its minimum fuel storage requirements throughout the entire process.

As the new tanks are constructed, the Navy would subsequently close the eight underground storage tanks that currently exist in the footprint of construction site. Eventually, the Navy plans to phase out and close all of the fuel depot's remaining underground storage tanks.

If all goes according to plan, construction could begin as soon as 2021 and would continue for the next six years, according to the proposal.

It would cost an estimated \$186 million to construct the new tanks and decommission the original tanks, Schmitt said.

The Navy will host a public meeting at John Sedgwick Middle School at 8995 SE Sedgwick Road in Port Orchard on June 27 from 5 to 8 p.m. for the public to learn more about the proposal and comment on it.

The Navy will also accept comments through July 16 via email at nwnepa@navy.mil or by written comments mailed to Naval Facilities Engineering Command Northwest, EV21 Attention: NEPA Planner, Manchester Tank Farm Improvements at 1101 Tautog Circle, Room 203 in Silverdale, WA 98315.

Copies of the proposal can be viewed at the Manchester or Port Orchard public libraries or online at <https://navfac.navy.mil>.

Newsroom (<https://www.seamancorp.com/news>)

DFSP Point Loma Fuel Storage Facility Becomes First to Receive LEED Certification, With White XR-5® Geomembrane for Secondary Containment

POSTED BY [KIM SEAMAN](https://www.seamancorp.com/news/author/kim-seaman) ([HTTPS://WWW.SEAMANCORP.COM/NEWS/AUTHOR/KIM-SEAMAN](https://www.seamancorp.com/news/author/kim-seaman)) ON JUNE 24, 2015

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([//cdn2.hubspot.net/hubfs/481602/point_loma_1.jpg](https://cdn2.hubspot.net/hubfs/481602/point_loma_1.jpg)) Authorities at Defense Fuel Support Point (DFSP) Point Loma in San Diego, California select Seaman Corporation's white XR-5 geomembrane to serve as a secondary containment liner at its new LEED certified state-of-the-art military fuel terminal.

DFSP Point Loma is the largest defense fuel terminal on the West Coast. Built between 1917 and 1954, the station has the capacity to store one million barrels (42 million gallons) of jet and diesel fuel. The site services significant clientele. The US Navy fleet, the US Marine Corps Air Station Miramar, the 11th District of the US Coast Guard/Homeland Security, the National Oceanographic and Atmospheric Administration (NOAA), and the Military Sealift Command (MSC) all fill their tanks at Point Loma.



([//cdn2.hubspot.net/hubfs/481602/Point_loma_2.jpg](http://cdn2.hubspot.net/hubfs/481602/Point_loma_2.jpg))

Challenge:

Situated alongside San Diego Harbor, the 100 year-old facility is surrounded by water and high-end homes. The site is highly visible, and visited often. In 2003, the various commands using the site had consumed more than 460 million gallons of fuel and oil.

The original facility accommodated 54 storage tanks, including both Aboveground Storage Tanks (ASTs) and Underground Storage Tanks (USTs). Constructed with riveted seams, these tanks began suffering leaks at the seams at varying rates as they aged. The DFSP command had to extract fuel and contaminated water from site soils on an ongoing basis. When 1.5 million gallons of fuel spilled from the site in 2006, authorities had no choice but to replace the tanks.

Solution:

In 2008, the Defense Logistics Agency (DLA) committed \$195 million to modernize the facility under Military Construction (MILCON) project P-401. The largest construction project ever in DLA history, its goal was to replace the existing infrastructure and facilities with modern alternatives to meet the growing demands of the supported groups for the next century. Administrators also wanted the project design to incorporate sustainable operational practices, and to qualify for accreditation from the US Green Building Council (USGBC) for Leadership in Energy and Environmental Design (LEED) status.

In a construction project that lasted five years, crews demolished much of the old site and prepared it for upgraded, more environmentally sound facilities. They built eight new 125,000 barrel ASTs, replacing 75% of the existing 54 ASTs and USTs at the site. In only eight tanks, the site offered the same 100 million barrel storage capacity of fuel and marine diesel fuels.

To give these barrels secondary containment protection, the project design team selected flexible membrane liners in place of concrete. To cover the ground beneath each tank, authorities selected a tan, nylon-based 40-mil polyurethane-coated flexible membrane liner (FML) by Seaman Corporation. Chosen for its excellent abrasion resistance, broad

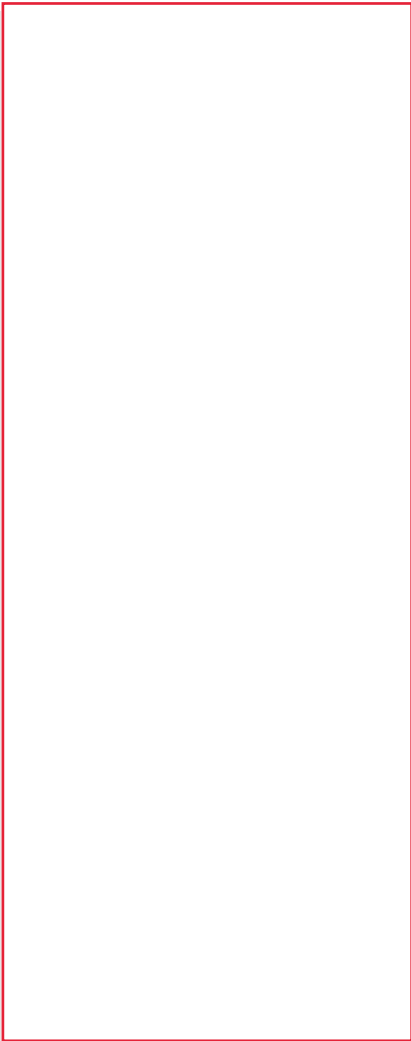
hydrocarbon chemical resistance and unmatched puncture resistance, the advantages of this FML over concrete are numerous. Primarily, they include: lower cost, rapid installation and reduced maintenance.

To line the dike area around the tanks, authorities chose Seaman Corporation's 30-mil XR-5[®] fuel resistant, polyester reinforced Ethylene Interpolymer Alloy (EIA) geomembrane. In addition to being UV resistant, XR-5 also provides the advantage of having a low coefficient of thermal expansion. This reduces the probability of the liner failure due to environmental stress cracking caused by repeated expansion and contraction. It also minimizes trip hazards to maintenance personnel otherwise posed by the extreme wrinkling that can occur in geomembranes subject to thermal expansion. Additional product benefits include: ease of installation; ease of maintenance, inspection and repair; cost effectiveness; and, proven long life.

To meet LEED requirements, Seaman Corporation manufactured the dike liner fabric in white. White lowers the membrane's Solar Reflectance Index (SRI) to below 29, which is the maximum SRI value allowed by LEED's "Heat Island Effect, Noon-Roof" credit requirement. It also lowers the surface temperature of the membrane in summer months by 30 degrees Fahrenheit, a real bonus for crews maintaining the site.

Results:

The DLA completed the project on time in January of 2014. In June of the same year, this state-of-the-art facility became the first fuel facility ever to achieve LEED certification. Making history as the DLA's largest new fuel facility replacing a pre-World War II fuel storage facility, the site is a show piece for the US Navy.



PROJECT FAST FACTS

Point Loma Fuel Station

Installation date: January 2014

Tank Bottom Liner

Product: Seaman Corporation's 40-mil Polyurethane-coated Nylon fabric

Total Size: 142,000 ft²

Dike Secondary Containment

Product: Seaman Corporation's 30-mil XR-5 EIA Coating

Total Size: 370,000 ft²

Project Manager: NAVFAC Southwest

Prime Contractors: Nova Group, Inc. and Underground Construction, Inc.

Engineer: Burns & McDonnell Engineers

Fabricator & Installer: MPC Containment Systems

Funding: Defense Logistics Agency (DLA)

Topics: [Geomembrane News \(https://www.seamancorp.com/news/topic/geomembrane-news\)](https://www.seamancorp.com/news/topic/geomembrane-news)

Submit Comment

SCR-45

Submitted on: 3/7/2020 10:06:14 AM

Testimony for AEN on 3/13/2020 1:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Regina Gregory	Testifying for EcoTipping Points Project	Support	No

Comments:



Young Progressives Demanding Action
P.O. Box 11105
Honolulu, HI 96828

March 13, 2020
1:45 PM

**TO: Senate Committee on Agriculture & Environment (AEN)
Senate Committee on Public Safety, Intergovernmental, & Military Affairs (PSM)**
RE: Testimony in Support of SCR 45/SR 24

Aloha Chair(s) Mike Gabbard and Clarence Nishihara, Vice Chair(s) Russell Ruderman and Glenn Wakai, Members of the Senate Committee on Agriculture & Environment and Senate Committee on Public Safety, Intergovernmental, & Military Affairs,

Young Progressives Demanding Action (YPDA) advocates for public policies that reflect the values of young people throughout the State of Hawai'i. One of those values is that our natural resources, including water should be protected and actually utilized for the benefit of present and future generations. YPDA is in **Support** of **SCR 45/SR 24**. This resolution urges the United States Environmental Protection Agency and Hawai'i State Department of Health to reject the approval of a single wall tank upgrade alternative option for the Red Hill Bulk Fuel Storage Facility and support the secondary containment tank upgrade alternative option, or, if secondary containment is determined to be infeasible, the relocation of the fuel tanks away from the aquifer.

Water is a natural resource that belongs to the benefit of all under our state laws. Water is also a central component of many of our policy initiatives as a State, from diversifying our agriculture to growing our own food. However we cannot achieve these policy goals when we can't even ensure that basic access to our drinking water is secure.

The aging and corroding underground fuel tanks at Red Hill are a threat to our water resources, just 100 feet above O'ahu's main drinking water supply. Red Hill's aquifer impacts so many different communities on O'ahu. Not just residents, but visitors who are a big part of our economy. This also no doubt impacts the water resources of members of the United States Navy and their families who are stationed here, the Navy also being a major stakeholder on this issue.

However, the Navy has made moves towards the cheapest option that maintains the failing status quo for these tanks, which includes extension of the timeline in which the fuel tanks need to be upgraded or retired to 2045. It is concerning as this facility alone has leaked over 200,000 gallons since construction, most recently releasing 27,000 gallons of fuel in 2014—none of which was ever located or cleaned up. Water is literally life, the Department of Health as a department of the State of Hawai‘i is legally obligated to uphold its public trust duties to protect our water. Even the Environmental Protection Agency’s page on State Underground Storage Tanks (UST) Programs says that, “State and local authorities are closer to the situation in their domain and are in the best position to set priorities.”¹

Hawai‘i contends with one of the highest costs of living. Working families are living paycheck to paycheck and our young people are moving away. The Board of Water Supply points out very clearly on their website in the frequently asked questions on Red Hill that if the old tanks are affected by a natural disaster like an earthquake and the fuel affects the water, the customers of the Board of Water Supply will have to pay out of their own pockets to fix the contaminated water. This is not even addressing the health issues that 80 year old tanks with up to 250 million gallons of fuel could bring to our communities as well as access to water resources. We cannot wait and ask for O‘ahu’s taxpayers to pick up the pieces when we have an opportunity to address it now. This is not only an environmental issue, but also a matter of economic justice as well.

Unfortunately, we lost the only measure in the 2020 legislative session that would have actually addressed this issue, that being SB2774. This would have changed our laws to reflect this very real crisis by making sure that starting in 2028, rather than 2045, the Red Hill tanks would need to be retired, so an actual set of meaningful steps can then take place. The fuel would then need to have been relocated away from our drinking water, rather than resources being spent to keep these tanks going. This resolution if it passes will not take place of SB2774 passing, but it will continue to build support and show that alongside other governmental bodies like the Honolulu City Council and Board of Water Supply, the legislature joins the people of O‘ahu in wanting to see our waters protected. YPDA sincerely appreciates all the members of the Senate who chose to sign on and show their support for this issue, especially those on O‘ahu where this issue is taking place. However, we hope that you understand when we also tell you that this is not enough. This is only the first step.

We need actual action. Whether it is through the federal representatives, State of Hawai‘i Health Department, or State Legislature, we need to retire these tanks. **Then move the jet fuel into a location that will not hurt the environment, hurt nearby communities, and take into consideration the effects climate change will have on the island, notably sea level rise.** Future generations are counting on your leadership here and now, we hope to see Senators continue to be advocates on this issue. Our kids and their kids should be able to enjoy our environment and natural resources as we have been able to in our lives, if not in better condition. Please join us in taking this stand.

¹ <https://www.epa.gov/ust/state-underground-storage-tank-ust-programs>

Young Progressives Demanding Action is in **Support** of **SCR 45/SR 24**. We respectfully ask for you to pass it through your respective committees. Water is life, E Ola I Ka Wai!

Mahalo for the opportunity to testify,

Jun Shin,
Environmental Justice Action Committee Chair
Young Progressives Demanding Action (YPDA)
Cell: 808-255-6663
Email: junshinbusiness729@gmail.com
CC: action@ypdahawaii.org



DEPARTMENT OF THE NAVY

COMMANDER NAVY REGION HAWAII
850 TICONDEROGA ST STE 110
JBPHH HI 96860-5101

Testimony on Senate Resolution 24 and Senate Concurrent Resolution 45

Hearing Date and Time: Friday, March 13, 2020 at 1:45pm

Testimony on behalf of Navy Region Hawaii

Aloha Chair Gabbard and Chair Nishihara,

Thank you for the opportunity to submit testimony on this important issue. The Navy opposes passage of S.R. 24 and S.C.R. 45 due to misleading or otherwise inaccurate statements in the wording of the resolution, uncertainty concerning its intent, and concern regarding the necessity given the content of the September 2019 Tank Upgrade Alternative and Release Detection Decision Document.

The U.S. Navy and Defense Logistics Agency (Navy/DLA) operate in partnership with state and national agencies on Red Hill. The State Department of Health (DOH) and U.S. Environmental Protection Agency (EPA) regulate Navy/DLA operation of the Red Hill facility and compliance with the 2015 Administrative Order on Consent (AOC). Our opinion is that this resolution is misaligned with the existing AOC regulatory process. At a minimum, the Navy encourages appropriate corrections of factual inaccuracies or misleading statements and seeks clarification of the intent of this resolution.

First, the water from Red Hill is safe to drink. The resolution states that testing indicated a spike in levels of hydrocarbons in the ground water. This is misleading. Year after year, both Navy and Board of Water Supply (BWS) independent water quality reports show that the water is safe to drink.

Contracted risk assessment measured statistical risk, not expected risk. The resolution states that undetected facility-wide fuel releases of 5,803 gallons per year are **expected**. Navy/DLA contracted a Quantitative Risk and Vulnerability Assessment (QRVA), and the engineers who developed this assessment believe that is a significant misinterpretation. The assessment measures statistical risk. "Expected" is an inaccurate characterization of the findings. Further, the resolution's use of the term **undetected** is also misleading because it fails to account for the many additional layers of detection in place at Red Hill.

The intent of this resolution is unclear. The language of the resolution appears to confuse the requirements of the AOC and the permit process. The AOC process is working and, under the oversight of state and federal regulatory agencies, it has led to the implementation of important improvements at the Red Hill facility. The Department of Defense has invested \$162 million over the past five years to make significant

improvements, and the Navy anticipates spending another quarter of a billion dollars in the next five years to continue to upgrade this facility. Regulators report that the facility continues to meet or exceed requirements. The layers of protection in place continue to show the tanks are not leaking..

Resolution portrayal of single-wall solution is out of date. As required by the AOC, the Navy/DLA submitted a proposed plan – the September 2019 Tank Upgrade Alternative and Release Detection Decision Document – to install the Best Available Practicable Technology (BAPT) at Red Hill for the regulators to review, approve, and brief to Congress. Although BAPT does not require secondary containment, the Navy/DLA have committed to pursuing technologies that will provide secondary containment, or we will remove the fuel from the tanks in the 2045 timeframe. By making this pledge, we are exceeding the requirements of the AOC. In the context of the Tank Upgrade Alternative and Release Detection Decision Document, the BAPT single-wall upgrades are relevant to the extent that they will contribute to achieving a secondary containment solution.

The Red Hill facility is of vital strategic importance to our Nation, to Hawaii, and to the U.S. Indo-Pacific Command. The United States Indo-Pacific Command’s Major General Susan A. Davidson recently stated in her letter of November 4, 2019:

The Red Hill facility holds a significant percentage of petroleum war reserves required to defend national security interests in the Indo-Pacific region. As our strategic reserve, it supports all U.S. military forces throughout the theater, including those stationed in and transiting through Hawaii. It also supports the Hawaii Army and Air National Guard and is available to support civil authorities, should circumstances dictate. Its hardened, underground, cyber-protected, gravity-fed system to Joint Base Pearl Harbor-Hickam is unique, and there is no comparable U.S. owned facility anywhere from India to mainland USA.

The Navy remains unfailing in our commitment and enduring efforts to protect the homeland, the people of Hawaii, and its precious resources. In partnership with the stakeholders in Hawaii, the Navy is utilizing our combined resources and infrastructure to leverage the great strategic importance of this state to the security and prosperity of our nation. Ours is a partnership that builds international cooperation, maintains peace by deterring conflict, and enables the free flow of commerce needed to ensure security for Hawaii and the Indo-Asia-Pacific region.

Mahalo for the opportunity to testify today.



Chamber of Commerce HAWAII

The Voice of Business

Testimony to the Senate Committees on Agriculture and Environment, and Public Safety, Intergovernmental, and Military Affairs
Friday, March 13, 2020 at 1:45 P.M.
Conference Room 224, State Capitol

RE: SCR 45/SR 24, URGING THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AND HAWAII STATE DEPARTMENT OF HEALTH TO REJECT THE APPROVAL OF A SINGLE WALL TANK UPGRADE ALTERNATIVE OPTION FOR THE RED HILL BULK FUEL STORAGE FACILITY AND SUPPORT THE SECONDARY CONTAINMENT TANK UPGRADE ALTERNATIVE OPTION, OR, IF SECONDARY CONTAINMENT IS DETERMINED TO BE INFEASIBLE, THE RELOCATION OF THE FUEL TANKS AWAY FROM THE AQUIFER

Chairs Gabbard and Nishihara, Vice Chairs Ruderman and Wakai, and Members of the Committees:

The Chamber of Commerce Hawaii ("The Chamber") is **opposed to** Senate Concurrent Resolution 45/Senate Resolution 24, which urges the U.S. Environmental Protection Agency and the State of Hawaii Department of Health to reject the approval of a single wall tank upgrade alternative option for the Red Hill Bulk Fuel Storage Facility and support the secondary containment tank upgrade alternative option, or, if the secondary containment is determined to be infeasible, the relocation of the fuel tanks away from the aquifer.

The Hawaii Military Affairs Council (MAC) was established in 1985 as part of the Chamber, and advocates on behalf of Hawaii's military, and is comprised of business leaders and retired U.S. flag and general officers. The MAC works to support Hawaii's location as a strategic U.S. headquarters in the Indo-Asia-Pacific region.

In recognizing how critical the U.S. military presence is to Hawaii's economy, the Chamber underscores that the Red Hill fuel facility is vital to military readiness as it supports all Hawaii-based military actions and a significant share of many more in the Indo-Asia-Pacific region. The military's ability to remain "ready to respond" is essential for preserving the military's presence in the State and protecting a vital driver of our State's economy. Fuel at Red Hill is also available for civilian use during times of emergencies, such as a natural disaster. It can be utilized by shipping companies to move cargo between the islands, or even by commercial air carriers to move residents or visitors.

The Administrative Order on Consent (AOC) is a binding order between the Navy, U.S. Environmental Agency and the Hawaii Department of Health which resulted from the January 2014 fuel leak. The AOC convened state and federal experts to research and evaluate structural upgrades to the existing tanks at Red Hill and help to determine a long-term solution. The Navy's Tank Upgrade Alternatives Report summarized dozens of technologies that were



Chamber *of* Commerce HAWAII

The Voice of Business

considered to improve the storage tanks and provided detailed conceptual design information for six upgrade options being considered. Additional monitoring is in effect, as well as the integration of additional technologies to help ensure the integrity of the system. We should allow the AOC to finalize its recommendations before any further action is taken. In addition, the State Department of Health is in discussions with the Navy about the long-term future of Red Hill and other alternatives. Those discussions are also ongoing and should be encouraged.

Thank you for the opportunity to testify.



SIERRA CLUB OF HAWAI'I

SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

SENATE COMMITTEE ON PUBLIC SAFETY AND MILITARY AFFAIRS

March 13, 2020 1:45 PM Room 224

In SUPPORT of SCR45

Aloha Chair Gabbard, Chair Nishihara, and members of the committee,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i **STRONGLY SUPPORTS SENATE CONCURRENT RESOLUTION 45** urging the U.S. Environmental Protection Agency and Hawaii Department of Health to reject the approval of a single wall upgrade alternative option for the Red Hill Bulk Fuel Storage Facility and support the secondary containment tank upgrade alternative option, or, if secondary containment is determined to be infeasible, the relocation of the fuel tanks away from the aquifer.

In September 2019, the Navy released its Tank Upgrade Alternatives and Risk Management Decision Document for Red Hill. Out of the six tank upgrade options considered, the Navy is recommending 1A-Reconstruction of Existing Tank using Current Clean Inspect Repair Program. This is the least protective and least expensive option, which retains the original, 75+ year old single-walled steel tank liner with minimal upgrades to prevent, detect, and mitigate fuel releases. Additionally, the Navy's plan contains a commitment to "double-wall equivalent secondary containment" or relocation of the fuel "around 2045." This proposes to extend the deadline for upgrading the tanks for an additional 7 years, utilizing some unknown future technology. We believe Option 1A should be rejected by the U.S. Environmental Protection Agency and the State of Hawai'i Department of Health and the Navy should be directed to relocate the Facility to a location not above O'ahu's drinking water. We support SCR45 because it recommends rejection of the Navy's selected tank upgrade option and relocation of the tanks if secondary containment is infeasible.

The Red Hill Bulk Fuel Storage Facility is over 75 years old and stores over 200 million gallons of fuel 100 feet above the Southern O'ahu Basal Aquifer. Approximately 400,000 residents and visitors from Hālawā to Hawai'i Kai receive their water from the Southern O'ahu Basal Aquifer. In November 1987, the Environmental Protection Agency designated this aquifer as the "principal source of drinking water" and that "if contaminated, would create a significant hazard to public health."

1. **We know that there have been leaks from these tanks.** Navy documents have revealed that there have been more than thirty leaks from the facility, the largest leak of 27,000 gallons occurring in 2014 from Tank 5 after routine maintenance. Soil samples taken from beneath 19 of 20 of the tanks show petroleum-based staining. Petroleum-based chemicals and carcinogens like naphthalene and benzene have been repeatedly detected in groundwater monitoring wells.
2. **We know that the tanks are corroding.** The December 2018 Destructive Analysis of 10 Steel Coupons Removed from Red Hill Fuel Storage Tank #14 shows that the tank liner is corroding. All samples of steel liner tested showed some presence of corrosion, with the thinnest sample measuring 49% of the original ¼ inch liner. Furthermore, lab testing shows that the Navy's nondestructive evaluation scanning method is inaccurate 50% of the time and both under and over estimates tank liner thickness.
3. **We know that these tanks will continue to threaten our water.** The 2019 Quantitative Risk and Vulnerability Assessment cited the possible frequency of an event resulting in a fuel release between 1,000 and 30,000 gallons is 27.6 percent, every single year. That means there is over a 1 in 4 chance that another large leak, similar to the 2014 leak of 27,000 gallons, could occur each year during day to day operations. The assessment also determined that we can expect facility-wide chronic releases of 5,800 gallons every year. Outrageously, the Navy recently announced it will be bringing back Tank 5, the tank which leaked 27,000 gallons in 2014, back into service at Red Hill. With this ongoing risk to O'ahu's water, it is unacceptable to continue operating these tanks, especially with the minimal upgrades presented in Option 1A.

We strongly support this resolution and thank Senator Gabbard and SCR 45 co-signers for their

leadership on Red Hill. Adoption of this resolution demonstrates to constituents, state, and federal decision makers that our local leaders acknowledge that O'ahu's drinking water is of paramount importance and that the Navy's current plan for Red Hill is insufficient in protecting our aquifer.

Thank you very much for this opportunity to provide testimony in support of SCR45.

Mahalo,

A handwritten signature in cursive script that reads "Jodi Malinoski".

Jodi Malinoski, Policy Advocate



Environmental Caucus of The Democratic Party of Hawai'i

Friday, March 13, 2020

Senate Concurrent Resolution 45

Testifying in Support

Aloha Chairs Gabbard and Nishihara, Vice Chairs Ruderman and Wakai, and Members of the Committee on Agriculture and Environment, and Committee on Public Safety, Intergovernmental, and Military Affairs:

The Environmental Caucus of the Democratic Party of Hawai'i stands in support of SCR 45. This measure urges the United States Environmental Protection Agency and the Hawai'i state department of Health to reject the Approval of a single wall tank upgrade alternative option for the Red Hill Bulk Fuel Storage Facility and support the secondary containment tank upgrade alternative option, or, if secondary containment is not determined to be infeasible, the relocation of the fuel tanks away from the aquifer.

In 2018, the O`ahu County Democrats, out of dire concern over the risk to the Moanalua-Waimalu Aquifer, our major drinking water source for Moanalua to Hawai'i Kai, affecting hundreds of thousands of residents, businesses and visitors of the Honolulu District, adopted the following resolution:

OC 2018-11. Urging the United States Navy to retro fit its twenty jet fuel tanks or relocate them to a location away from the aquifer

Whereas, A Navy analysis may underestimate the contamination potential of leaks from giant fuel tanks from Red Hill; and

Whereas, The Navy has 20 underground fuel storage tanks dating to World War II in Red Hill above Pearl Harbor; and

Whereas, The tanks sit on an aquifer that supplies a quarter of the water consumed in urban Honolulu; and

Whereas, More than 27,000 gallons of jet fuel leaked from one of the tanks in 2014; and

Whereas, The Navy's evaluation of the potential risks appears to be skewed toward concluding that millions of gallons of jet fuel could be released without damaging the groundwater; and

Whereas, The Navy cannot locate the leaked fuel or accurately assess the risk to our groundwater; and

Whereas, Instead, the Navy is providing models to produce its preferred outcomes; and

Whereas, The Navy and regulatory agencies are working on a 20-year-plan to reduce the risk of leaks and fuel contamination from the tanks; and

Whereas, The plan includes new tank designs and potentially storing the fuel someplace other than Red Hill; and therefore, be it

Resolved, That the O‘ahu County Democrats of the Democratic Party of Hawai‘i urge the United States Navy to install double-walled tanks at Red Hill within five years or move the tanks if the Navy is unable to retrofit the twenty tanks into double-walled tanks within the time prescribed; and be it further

Resolved, That the O‘ahu County Demoicrats of the Democratic Party of Hawai‘i urge the Hawai‘i State Legislature, and the U.S. Congress to mandate that the Navy retrofit the twenty Red Hill tanks to double-walled tanks within five years and or relocate the twenty tanks to a location where the risk of leakage into the aquifer and groundwater is greatly minimized; and be it

Ordered, That copies of this resolution be transmitted to the United States Navy, members of the Hawai‘i Congressional Delegation, the Governor of the State of Hawai‘i, the Lt. Governor of the State of Hawai‘i, Hawai‘i Legislators who are members of the Democratic Party; the Mayor of the City and County of Honolulu; and Members of the City Council of the County of Honolulu; and the 2018 convention resolutions committee of the Democratic Party of Hawai‘i.

For these reasons, the Environmental Caucus of the Democratic Party of Hawai‘i supports the passage of this measure which urges the United States Environmental Protection Agency and the Hawai‘i state department of Health to reject the approval of a single wall tank upgrade alternative option for the Red Hill Bulk Fuel Storage Facility and supports the secondary containment tank upgrade alternative option, or, if secondary containment is not determined to be infeasible, the relocation of the fuel tanks away from the aquifer so that the people of the state of Hawai‘i, particularly those residing, working, and visiting the county of Honolulu, can feel safe and risk-free of petroleum contamination in its major drinking water aquifer for generations to come.

Mahalo for the opportunity to testify,

/s/ Melodie Aduja

Co-Chair, Green New Deal Committee

Environmental Caucus of the Democratic Party of Hawai‘i

Email: legislativepriorities@gmail.com

SCR-45

Submitted on: 3/8/2020 7:56:26 AM

Testimony for AEN on 3/13/2020 1:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Penelope Hazzard	Individual	Support	No

Comments:

These tanks sit above a major aquifer and are known to be leaking. We must contain these before disaster. Please be proactive.

SCR-45

Submitted on: 3/9/2020 9:36:10 AM

Testimony for AEN on 3/13/2020 1:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dwamato	Individual	Support	No

Comments:

SCR-45

Submitted on: 3/12/2020 1:35:51 PM

Testimony for AEN on 3/13/2020 1:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ashley Nishihara	Individual	Support	No

Comments:

I agree with what is stated within this resolution. The Department of Health should hurry up and make their decision on the Navy's permit and stop dragging their feet! Of course, I prefer for the DOH to decide NOT to grant the Navy their permit to run the fuel tanks. Shut Red Hill down - we just want that fuel out of the ground, NOW! No more dawdling, no more waiting for other solutions that involve keeping the tanks where they are. No single-walled tanks, no tank-within-a-tank, just get it out NOW and put the fuel somewhere else. If there is no place to put it, then the Navy should constrict an above-ground facility, OVER military turf, OVER caprock, AWAY from our aquifer! Water is life - the human body can only survive for up to three days without fresh water, and we use water for so much more than drinking. Cooking, cleaning, washing our hands, flushing the toilet, bathing, growing our food (both plants and animals) - NOTHING else, not money, or so called "strategic defense," is even half as important!

SCR-45

Submitted on: 3/12/2020 1:45:29 PM

Testimony for AEN on 3/13/2020 1:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
lois berger	Individual	Support	No

Comments:

I believe the government has not done enough to ensure protection of our aquifer and more needs to be done - the least would be a double wall tank in a tank containment.

SCR-45

Submitted on: 3/12/2020 3:42:59 PM

Testimony for AEN on 3/13/2020 1:45:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lynda Nishihara	Individual	Support	No

Comments:

Friday, March 13th, 2020

To: Hawaii State Senate

LATE

From: Harvy King; Veteran, Student

Subject: Statement of Committed Support of SCR 45/ SC24 on Red Hill

Aloha,

I am Harvy King, a veteran of the Navy last stationed at the Marine Corps Base Hawaii, and currently a student of Justice Administration (Sustainability) at UH West Oahu. I submitted testimony on the matter of Red Hill Fuel Storage Facility in 2017. The Sierra Club had approached me to testify; they had little knowledge that I had a collateral duty as an Environmental Compliance Coordinator. I received training through the MCBH Environmental Division from former EPA auditors that were lecturing for the Naval Civil Engineer Corps Officer School. I was a mere 3rd class Petty Officer, aircraft mechanic, who was interested in ensuring work center cleanliness by method and measure in Lean 6 Sigma principles (aka Continuous Process Improvement). I inadvertently opened a can of worms that has lead me into a complicated study of US global operating standards and sustainability.

The Navy's primary argument for maintaining the facility is National Security. However, the primary function the fuel storage facility serves is more appropriately the forward presence of our asymmetric advantage of air warfare. Chief of Naval Operations Jay L. Johnson January 1997 remarks in a statement on forward presence, (two decades prior to my first testimony), states, "Keys are turning in the front doors of thousands of American business offices "forward deployed" literally all over the world. American companies invest in overseas presence because actually "being there" is clearly the best way to do business." He goes on to define the Navy's forward engagement strategy, to "Prevent, Deter, Resolve, and Terminate." In the Spring 1996,

Friday, March 13th, 2020

Admiral Johnson's had his congressional interview where he declares that he will be the man to "set the example for the entire Navy."

I enlisted to do the same and found myself at odds with US operations abroad the more I began to learn and understand the manner in which the vernacular of both military and political leadership justify atrocious behavior and call it "the Mission" as if it is indeed "Business as Usual." The father of our modern economics had this to say about Defense; According to Adam Smith, the First Duty of Sovereign Nation is the expense of defense, to protect the society from violence or invasion becomes a commodity of War. Even Mr. Smith admits, "The Art of War, however, as it is certainly the noblest of all arts, so in the progress of improvement it necessarily becomes one of the most complicated among them." I would argue that such is the case with respect to Red Hill, that it is indeed a for-profit mechanism of War that is leading us straight toward the rocks.

Whereas US GDP third quarter 2019 estimate sits at \$21.53 trillion (Bureau of Economic Analysis). US total deficit is equal to \$ 23.4 trillion (USDebtClock.org). Whereas, the US historical GDP increase has a direct correlation with carbon emissions (EPA Website, IPCC 2014). Whereas, The City and County of Honolulu has adopted a resolution to take legal action against the oil industries that are linked to one third of total carbon emissions. Whereas, US government oil subsidies equal up to \$20 billion per year (EESI). Therefore, our national debt has surpassed our revenue, meaning the USA doesn't actually have an economic advantage over its political competitors. Therefore, US leadership on the global economic narrative is the root cause of the Greenhouse gas emissions. Therefore, our country is effectively maintaining geo-strategic control over the Pacific for business interests, not National Security. Therefore, the

Friday, March 13th, 2020

Navy's and the Defense Logistics Agency's responsibility to respond to their mandate to repair the situation at Red Hill is more appropriately a failure to respond. The recent bring online of Tank 5 is illegal. This is a clear and present danger to Oahu residents.

From the book, "U.S. Global Defense Posture, 1783–2011" the US has existed in both continental and commercial defense postures. This has obscured the reality of War. Irresponsibly so, the Carlyle Group controls more Intelligence than the actual government. I am a Patriot to every molecule of my body and mind, my spirit is something different. You all have the opportunity to conduct yourself accordingly as the stewards of people and place across Oceania.

- Please **REJECT** the approval of single walled containment.
- Please **SUPPORT** Double-Walled containment.
- Demand the Navy to **RELOCATE** and adjust their operations accordingly if double-walled containment truly is determined infeasible.

WE CANNOT CONTINUE TO JEOPARDIZE THE DRINKING WATER OF 400,000 PEOPLE OF HONOLULU BECAUSE IT IS BUSINESS AS USUALL.

Further Reading

Carlyle Group: <https://youtu.be/gXfjd1ffpQ8>

National Defense: <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>

BEST,

Harvy King

808-292-7405

