

## 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

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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.

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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,



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



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.”<sup>1</sup>

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.

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<sup>1</sup> <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.





# Environmental Caucus of The Democratic Party of Hawai'i

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Friday, March 13, 2020

Senate Resolution 24  
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 SR 24. 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](mailto:legislativepriorities@gmail.com)

**SR-24**

Submitted on: 3/8/2020 8:53:20 AM

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

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Benton Kealii Pang, Ph.D.	Individual	Support	No

Comments:

I am in strong support of SR24. I have long advocated for double-wall tanks or relocation of the current fuel storage tanks at Red Hill. This resolution is a good step in the right direction.

**SR-24**

Submitted on: 3/12/2020 1:32:58 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!

**SR-24**

Submitted on: 3/12/2020 1:45:53 PM

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

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
lois berger	Individual	Support	No

Comments:

**SR-24**

Submitted on: 3/12/2020 3:42:19 PM

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

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Lynda Nishihara	Individual	Support	No

Comments: