

Board of Water Supply
Red Hill Bulk Fuel Storage Facility Update – October 2019

1. Navy's Tank Upgrade Alternative (TUA) Decision Document
 - a. Navy selected existing single-walled tanks and current practices as its TUA for Red Hill
 - b. Other proposed improvements include "double-wall equivalency" or removal of fuel in the 2045 timeframe
 - i. Navy describes leak detection, tank tightness testing, groundwater monitoring, soil vapor monitoring, trend analysis and fuel inventory monitoring as working together to "provide redundant elements of detection and capture, equivalent to typical provisions of a 'double wall' solution"
 - ii. Use of a water treatment plant, if feasible, to create a "capture zone" around Red Hill
 - c. Navy's "double wall equivalency" is not actual secondary containment or a double-wall system, nor does it provide adequate safeguards against future fuel releases into our critical drinking water resources
 - i. Many proposed upgrades merely detect and/or measure fuel already released into the environment
 - ii. Potentially using a treatment plant, if constructed, to clean water contaminated with Red Hill fuel does not prevent the release of fuel into our drinking water aquifer in the first place
 - iii. Reliant upon a treatment plant that does not exist and the Navy has not committed to constructing
 - d. No meaningful comparison of environmental performance of TUA selection relative to other alternatives
 - e. BWS supports relocation away from the aquifer or upgrading the Red Hill tanks with secondary containment
2. Navy's Destructive Testing (DT) Report
 - a. Steel liner samples (aka "coupons") collected from Tank 14 prove rusting – that leads to through-wall holes – is taking place on the side of the liner that cannot be inspected or maintained
 - b. Laboratory testing of Tank 14 coupons shows the Navy's nondestructive evaluation (NDE) scanning method is inaccurate 50% of the time and both over and under-estimates liner thickness
 - c. Given the enormous size of the Red Hill tanks and extremely large surface area that must be scanned, the Navy cannot reliably and accurately find all areas in need of repair using current NDE methods
3. Navy's Risk and Vulnerability Report
 - a. Risk assessment prepared by the Navy's consultant indicates likelihood of fuel releases from Red Hill:
 - i. 27% probability of up to 30,000 gallon release in a year
 - ii. 34% chance of more than 120,000 gallon release in 100 years
 - iii. Expected chronic, undetected fuel releases of 5,803 gallons per year (facility-wide)
 - b. These risks to our drinking water are too high, and inconsistent with Hawaii law requiring underground tanks be "upgraded ... and operated to prevent releases ... for the operational life of the tank" (HRS § 342L-32)
4. Department of Health's (DOH) evaluation of groundwater flow
 - a. Navy's groundwater model is unable to reproduce water levels measured in the field
 - b. Data supports groundwater flow to the Northwest (toward BWS Halawa Shaft)
 - c. Data does not support Navy claims that subsurface features prevent groundwater flow toward Halawa Shaft
 - d. Navy's groundwater model has not been approved by the regulatory agencies or endorsed by BWS
5. Navy's Red Hill permit application
 - a. Hawaii UST rules require the Navy to obtain a permit to operate Red Hill tanks by July 15, 2019
 - b. Navy applied to DOH for a permit to operate the Red Hill tanks, but to date DOH has not issued one
 - c. Sierra Club of Hawaii submitted a request for contested case hearing on the Navy's application and is seeking to have DOH deny the permit and order the Navy to relocate the tanks