



## REGION 9

SAN FRANCISCO, CA 94105

### **VIA ELECTRONIC MAIL – READ RECEIPT REQUESTED**

Rear Admiral Marc Williams  
Deputy Commander  
Navy Closure Task Force – Red Hill  
850 Ticonderoga Street, Suite 110  
Joint Base Pearl Harbor-Hickam, Hawaii 96860-5101  
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Re: Principal Physical Modifications for Red Hill Bulk Fuel Storage Facility Field-Constructed Underground Storage Tank Closure

Dear Rear Admiral Williams,

On December 16, 2024, Navy Closure Task Force – Red Hill (NCTF-RH) provided the United States Environmental Protection Agency, Region 9 (EPA) a Principal Physical Modifications memorandum related to Phase 1 Closure of the Red Hill Bulk Fuel Storage Facility (RHBFSF). The memorandum describes the proposed method in which tank components will be decommissioned and/or removed from the facility. Notably, the scope is limited to the interior of the 14 recently defueled bulk storage tanks. NCTF-RH has indicated that details pertaining to the remaining six previously defueled tanks, infrastructure located outside the tanks, as well as a facility closure design plan will be submitted as Supplement 4 to the Closure Plan later this year.

Given the complexity and interconnectedness of the RHBFSF, a complete facility closure design plan is required before EPA is able to make a determination on whether the interior tank modifications presented in this memorandum are consistent with an approved manner of closing the facility in accordance with the 2023 Administrative Consent Order (ACO). However, EPA also acknowledges that it is in all parties' best interest to clean and close the tanks as safely and expeditiously as possible. Efficiencies are gained by beginning the decommissioning process concurrent with tank pressure washing, and EPA understands the need to address the interior tank components of the 14 recently defueled tanks at this time.

Regardless of the final closure method, it is imperative that NCTF-RH develop detailed plans to address interior tank components, ensuring that any piping and appurtenances with the potential to contain trapped fuel be cleaned and/or removed. The Principal Physical Modification memorandum seeks to fulfill this goal and identifies the key tank interior infrastructure. EPA is requesting additional information on NCTF-RH's plans before approving the proposed

modifications. Detailed comments can be found in Enclosure 1 of this letter. NCTF-RH response is requested by January 31, 2025.

Should you have any questions regarding this letter or seek clarification, please contact Drew Suesse (808-539-0545, [suesse.andrew@epa.gov](mailto:suesse.andrew@epa.gov)).

Sincerely,

**JAMES  
MARINCOLA**

Digitally signed by JAMES  
MARINCOLA

Date: 2025.01.10 10:28:00  
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Jamie Marincola  
2023 Red Hill Consent Order Coordinator  
Enforcement and Compliance Assurance Division

Enclosures: (1) EPA Comments on Principal Physical Modifications Memorandum

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## Enclosure 1 – EPA Comments on Principal Physical Modifications Memorandum

1. **Page 1, “Components that cannot be verified clean will be removed when practicable”**

EPA understands this to mean small diameter piping, such as sample lines and stilling wells, that have the potential to accumulate liquid, but cannot be easily cleaned during tank pressure washing. EPA concurs with the removal of these components, however, disagrees that this operation will only be performed “when practicable”. Pursuant to the 2023 ACO, Phase 1 Closure requires the removal of “all liquids and accumulated sludges”. Components that cannot be verified as free of fuel products shall not be allowed to remain in the tanks. Please specify which components NCTF-RH anticipates will be impracticable to remove and cannot be verified as clean.

2. **Page 1, “Any deviation from the modifications stated below will be addressed in consultation with the regulatory agencies to determine an approved method for closure”**

EPA concurs that close coordination between NCTF-RH and EPA will be required throughout the tank decommissioning process. Given some tanks have not been cleaned or inspected in a number of years, there exists a degree of uncertainty regarding the condition and presence of interior tank components.

Please describe how consultation with the regulatory agencies will occur. Specifically, NCTF-RH should detail the method in which the deviation will be identified, how regulatory agencies will be notified of the deviation, and the process in which regulatory agencies will provide concurrence.

3. **Page 2, Gauging Gallery – “Some tanks have a ladder that extends down from the gallery floor to the top of the center tower”**

Please specify which tanks have this ladder.

4. **Page 2, Gauging Gallery – “The stilling well extends from the tank floor to the top of one of the gauging gallery hatches through the center tower”**

Based on the Instrumentation Wells section below and previous discussions with NCTF-RH, EPA assumes this stilling well will be one of the instrumentation wells subject to removal. However, the Gauging Gallery section does not mention removal of the stilling well. Please clarify how this component will be addressed.

5. **Page 2, Tank Venting System – “Although there is no driver for vapor movement when a tank is empty, passive diffusion egress pathways will be available via the open atmospheric vent shaft, but primarily through the upper access tunnel manway and the lower access tunnel nozzle”**

This memorandum does not provide any data supporting the conclusion that passive air diffusion through the upper access manway and the lower access tunnel nozzle will be adequate

in preventing the accumulation of potential vapors. Of particular interest to EPA is how the final configuration of the venting system will impact humidity inside the tank, given that excessive moisture will accelerate corrosion of the center tower and other interior components.

As NCTF-RH continues to develop the final method of facility closure (to be submitted to regulatory agencies as Supplement 4 of the Closure Plan), an evaluation of the tank atmosphere should be conducted. Final configuration of the ventilation system should be supported by VOC and humidity data.

6. **Page 2, Tank Venting System** – *“In the final closure configuration, the atmospheric venting manifold to the ridgeline will be abandoned in place”*

Similar to Comment #5, this memorandum lacks a clear explanation of how the modified tank venting system is intended to operate. It is also unclear how NCTF-RH determined this to be an optimal configuration for long-term closure. Likewise, NCTF-RH does not describe the manner in which the ridgeline vent will be abandoned in place, and no justification is provided for its discontinued use. A detailed drawing of the current and proposed venting system configuration should also be provided.

7. **Page 2, Manway Hatch** – *“...the plywood cover with lockable door will remain in place to allow for future tank access and provide a breathable barrier for passive air diffusion”*

During a December 10, 2024, Tank Closure Working Group meeting, EPA was notified that the tank cleaning contractor is proposing to use metal manway doors instead of the plywood ones previously specified. Given that the manway hatch is proposed to be a primary source of ventilation, it is also unclear how either metal or plywood would serve as a “breathable barrier”. Please clarify the final configuration of the manway hatch.

8. **Page 3, Instrumentation Wells** – *“A variety of liquid level gauges have been utilized throughout the operational history of the tanks, including floating tape gauges with counterweights, telemeters, and Automatic Tank Gauge (ATG) assemblies”*

NCTF-RH lists a number of potential instrumentation and associated wells that may be present. It is not clear, however, which tanks contain which of these components and how many are expected.

As a general comment, EPA requests that NCTF-RH generate a table detailing the specific modifications to be made to each tank. While some infrastructure, such as the 32” standpipe and center tower are known to be present in all tanks, it is less clear which tanks contain deviations from the “typical” configuration (e.g. presence of staircases/ladders; quantity and type of instrumentation wells; and existing configuration of FOR lines, steam-line casings, sample lines, and 18” fuel pipes). Although similar, no two tanks are identical, and a table would clearly define the anticipated physical modifications proposed for each tank.

9. **Page 3, 32" → 20" Fuel Pipe(s)** – *"The diffuser and cut pipe will be removed from the tank as practicable"*

Please describe what conditions are anticipated that would make it impracticable to remove the diffuser and cut pipe.

10. **Page 3, 32" → 20" Fuel Pipe(s)** – *"The remaining pipe segment between the tank floor and lower access tunnel will be pressure-washed"*

This section suggests that the diffuser and pipe will be cut before cleaning of the remaining fuel pipe segment would occur. While this is not a concern if these components are removed from the tank, it would be unacceptable to abandon an uncleaned diffuser and pipe segment inside the tank. These comments also apply to any 18" fuel standpipes that have a diffuser.

11. **Page 4, FOR Line** – *"the existing FOR line will be maintained for continued use, providing an egress pathway for moisture that may accumulate inside the tank"*

Please clarify where the inlet to the FOR line is located in relation to the bottom of the tank. If the FOR line inlet is not flush with the tank floor, moisture will accumulate, accelerating corrosion of components in contact with the tank bottom (i.e. center tower, fuel standpipes, and FOR line). How much moisture can be expected to accumulate in the bottom of the tank before it enters into the FOR line?

Although outside the scope of this memorandum, Supplement 4 of the Closure Plan should also identify and address any sags or low-points in the FOR line that could accumulate liquid, leading to corrosion and potential release of liquid.

12. **Page 4, FOR Line** – *"As each tank was also equipped with a 6-inch diameter steam-line casing that was never used, it was put into service to replace the compromised 8-inch diameter bottom drain line in some of the tanks" ... "the 6-inch and 8-inch diameter pipes that are not part of the active FOR line will be cleaned and capped in the tank and in the lower access tunnel"*

Please specify to which tanks these statements apply. Additionally, details on the cleaning and capping of the non-active 6-inch and 8-inch pipes should be provided.

13. **Page 4, FOR Line** – *"Tank 5 utilizes this 18-inch line as a FOR line, but it will require a modification to allow it to function as a low-point bottom drain."*

EPA requests that plans for this modification be submitted for approval prior to commencement of this work.

14. **Page 4, Sample Lines** – *"Sample lines drained through the lower access tunnel manifold and spigot lines from the manifold were capped"*

The segments of sample lines to be abandoned in place should be flushed with water to ensure all residual fuel product has been removed.

15. **Page 4, Sample Lines** – *“The sample lines inside the tank were cut down close to the casing and removed”*

This section indicates the sample lines have been removed from the tank. However, the photograph provided in Table 2 on Page 8 shows sample lines inside the tank. Likewise, this seems to disagree with the information provided in Table 1 on Page 5 – “cut and cap sample lines inside tank”. Please clarify if the samples have previously been removed. If not, NCTF-RH should specify how the five sample lines extending to different heights inside the tank will be addressed.