



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Enforcement and  
Compliance Assurance Division

**VIA ELECTRONIC MAIL – READ RECEIPT REQUESTED**

Rear Admiral Stephen Barnett  
Commander  
U.S. Navy Region Hawaii  
850 Ticonderoga Street, Suite 110  
Joint Base Pearl Harbor-Hickam, Hawaii 96860-5101  
[stephen.d.barnett.mil@us.navy.mil](mailto:stephen.d.barnett.mil@us.navy.mil)

Re: Comments on Supplement 2 of the RHBFSF Closure Plan; Response on Foundational Concepts for Closure

Dear Rear Admiral Barnett,

The United States Environmental Protection Agency Region 9 (EPA) has received and reviewed Supplement 2 of the Closure Plan (“Supplement 2”) for the Red Hill Bulk Fuel Storage Facility (RHBFSF), submitted by the United States Navy Region Hawai‘i (Navy) on May 31, 2023. EPA has also reviewed a letter from Donald Panthen, Director, Red Hill PMO requesting concurrence on specific concepts related to Navy’s plan for closure, received on August 16, 2023. Both submittals relate to initial closure actions that will take place after the RHBFSF has been defueled. This correspondence intends to address both submittals. The body of this letter responds to Navy’s request for concurrence on certain concepts central to tank closure, while Enclosure (1) to this letter contains specific comments on Supplement 2 of the Closure Plan.

By this letter, EPA is responding to the three topics included in Navy’s August 16, 2023, submission. Navy has specifically asked for a response from EPA on these topics:

- 1) The proposed timelines for review of planned submittals related to the Closure Plan,
- 2) The use of the Fuel Oil Recovery (FOR) system for removing tank cleaning rinsate from the RHBFSF, and
- 3) Plans to remove the three fuel pipelines (i.e., F-24, F-76, and JP-5) between the Red Hill Underground Storage Tanks and the underground pump house (UGPH) as identified in Supplement 2.

In addition, EPA is raising two additional topics that have been discussed at length in the biweekly meetings between EPA, Navy, and the Hawai‘i Department of Health (DOH) regarding Closure:

- 4) The use of Simple Green as a surfactant when cleaning the Red Hill tanks, and
- 5) The use of ultraviolet (UV) light-induced fluorescence as a testing procedure for verifying tank cleanliness following defueling and cleaning.

EPA has addressed each of these five topics, below.

1) Regarding the proposed timelines for reviewing and responding to future submittals, as identified in the August 16 letter, EPA finds the proposed schedule acceptable so long as Navy acknowledges certain potential challenges that may affect EPA's ability to review and respond in the requested timeline. Navy proposes submittal of these items for review during a time that overlaps with the planned start of defueling the RHBFSF. EPA staff are assigned to both defueling and closure activities, so there is a possibility that unexpected developments during defueling of the RHBFSF will limit EPA's ability to respond within the requested timelines. Additionally, if EPA identifies concerns with any of these plans requiring significant rework by the Navy, the time allotted for review and approval may not be sufficient. EPA looks forward to receiving the documents included on this list of future submittals, including: *Contractor Work Plan*, *Contractor Waste Management Plan*, *Contractor Environmental Protection Plan*, *Contractor Spill Response Plan*, and the *Navy Addendum to Facilities Response Plan*. Only DOH has a regulatory role in reviewing the *Air Emissions Approval for Generators and Ventilation*.

2) Regarding the use of the FOR system for removing tank cleaning rinsate, EPA finds the proposal acceptable as a concept but will be requiring additional information prior to beginning this portion of closure. Certain information that EPA will need to evaluate before approval of this portion of the Closure Plan will include, but not be limited to:

- Specific Concepts of Operation (CONOPS) and Operation Orders (OPORDS), or related documents, that provide detailed operational parameters for use of the FOR system in this capacity.
- Results of tightness testing the FOR pipeline between the main FOR sump and Tank 311.
- A summary of the results of the various non-destructive evaluations of the FOR system, such as borescope surveys, tightness tests, visual inspections, and other relevant evaluations intended to determine the integrity of the FOR line.
- The quality validation reports associated with the construction of all FOR bypasses. EPA understands that this work is currently being carried out by the Joint Task Force-Red Hill and will be completed later this summer.
- The results of defueling tank bottoms, and identification of any "lessons learned" from this process that will utilize a portion of the FOR pipeline.

The above points are not an exhaustive list of information that must be submitted prior to EPA approving the use of the FOR pipeline as proposed. EPA will prepare detailed comments after receiving operational plans related to this activity.

3) Regarding the Plans to remove the three fuel pipelines between the Red Hill Underground Storage Tanks and the underground pump house (UGPH) as identified in Supplement 2, EPA

supports this general proposal. Navy will need to comply with all applicable local, state, and federal rules and requirements including compliance with lead-based paint and pipeline sludge removal/handling requirements. EPA will also need to review the contractor's proposed workplan for this removal work before issuing approval to remove the pipelines. Since these pipelines are considered part of the Underground Storage Tank system as defined by state and federal rule, Navy should consider any input from public stakeholders regarding removal of these pipelines.

4) Regarding the use of Simple Green as a cleaning agent and surfactant to aid in the removal of residual fuel from the Red Hill tanks, EPA is in general support of this proposal so long as adequate measures are taken to ensure the risk of introducing any cleaning materials to the environment are minimized. This includes but is not limited to:

- Using the lowest concentration of cleaning product that will effectively remove residual fuel,
- Ensuring integrity of infrastructure involved in removal of the rinsate and safe operational planning, as discussed above regarding the use of the FOR system,
- Preparing and training for possible spillage of cleaning solution and/or rinsate in the Lower Access Tunnel,
- Submittal of additional information to EPA, including a Safety Data Sheet, contractor workplan(s), and contractor credentialing/training.

EPA will consider formal approval for this proposed cleaning method once additional information is submitted addressing the requests, above.

5) Regarding the use of ultraviolet (UV) light-induced fluorescence as a testing procedure for verifying tank cleanliness following defueling and cleaning, EPA has already expressed support for this proposal by email, as referenced in your letter, and would like to reiterate that additional information is required for EPA to support this proposed method. EPA requests testing plans and schedules for the large-scale study and surge tank demonstration before they begin, with opportunity to witness this work. We also request a report on the preliminary results of the UV method from the bench-scale study.

EPA understands that Navy wishes to move forward with awarding contracts to third-parties that will conduct the work associated with the above topics. These statements should not be interpreted as formal approvals, nor should they be considered as assurance that EPA intends on issuing formal approvals. EPA is providing statements of general understanding and support for concepts that will be further refined, detailed, and presented to regulators at a future date. We look forward to receiving this information when it is prepared and making final determinations. If you seek any clarification on any of these comments, please contact Evan Osborne of my staff (206-553-1747, [osborne.evan@epa.gov](mailto:osborne.evan@epa.gov)).

Sincerely,

Amy C. Miller-Bowen, Director  
Enforcement and Compliance Assurance Division

Enclosure: Comments on the Red Hill Bulk Fuel Storage Facility – Tank Closure Plan  
Supplement 2 (May 31, 2023)

cc: CAPT Cameron Geertsema, NAVFAC Hawaii [email only]  
Donald Panthen, NAVFAC Hawaii [email only]  
Kathleen Ho, Hawaii Department of Health [email only]  
COTP Aja Kirksey, USCG [email only]  
Dustin Hubbard, US DOT PHMSA [email only]  
VADM John Wade, Commander, JTF – Red Hill [email only]

**Enclosure 1 – Comments on the Red Hill Bulk Fuel Storage Facility – Tank Closure Plan Supplement 2 (May 31, 2023)**

1. It is still unclear when Navy will issue a proposed final decision on tank closure method. Enclosure 4 of Supplement 2 of the Closure Plan indicates that, "...further discussion regarding details of the selected closure in place alternative are ongoing, and may require future supplement(s) to provide all necessary information for approval..." Navy also states, in the Supplement 2 report, that, "the DON formally sought DOH approval for ALTERNATIVE 1: Closure in Place as the permanent closure method. The DON selected this alternative because it will allow for potential beneficial non-fuel reuse of the tanks while minimizing impacts to the environment, local community, safety concerns, and closure schedule." EPA cannot approve a proposed closure practice that is undefined. It is understood that additional information is needed for Navy to reach a final proposal for tank reuse and, therefore, closure method. EPA requests that Navy provide a proposed date by which a final proposal will be prepared and submitted to regulatory agencies. Please also include a schedule of key events that will inform this process. This will allow EPA to evaluate Section 5 of the original Closure Plan, and eventually, prepare to evaluate the proposed tank closure method.
2. EPA anticipates future submissions from JTF on drainage of fuel from low-points. While it is good to provide containment for pipeline removal processes, EPA's expectation is that all fuel will be removed by JTF as part of defueling.
3. Surge Tanks Closure – EPA supports the general method of closure by filling the surge tanks with inert material. EPA will provide specific comments and approval when Navy submits contractor workplans detailing how this work will occur.
4. Please confirm that the tank cleaning method proposed by Navy will apply to Surge Tanks and to the Red Hill Tanks.