



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

**OFFICE OF THE
REGIONAL ADMINISTRATOR**

August 11, 2022

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

Re: Response to Defueling Plan for the Red Hill Bulk Fuel Storage Facility, Submitted June 30, 2022

Dear Rear Admiral Barnett:

The U.S. Environmental Protection Agency Region 9 (EPA) has reviewed the Defueling Plan for the Red Hill Bulk Fuel Storage Facility (RHBFSF), Oahu, Hawaii (“Defueling Plan,” or “the Plan”) prepared by the Secretary of the United States Department of the Navy (Navy) and provided to EPA on June 30, 2022. Thank you for sharing this document, which serves as an initial framework for future actions concerning preparation for and commencement of defueling the RHBFSF that will be undertaken by the Navy and the Defense Logistics Agency (DLA). The EPA has also reviewed Hawaii Department of Health’s (HDOH’s) July 22, 2022, response to the Defueling Plan, which disapproves of the Plan submitted pursuant to HDOH’s May 6, 2022, Emergency Order (the “HDOH Emergency Order”). The EPA requests that the Navy provide all submittals required by HDOH’s Emergency Order to EPA simultaneously with transmittal to the State.

This letter transmits EPA’s comments on the Defueling Plan. EPA concurs with HDOH’s determination that the Plan lacks the detail necessary to evaluate how the Navy will execute safe and expeditious defueling. In addition, the Plan does not sufficiently describe the planning and emergency preparedness process conducted by the Navy to prepare for safe defueling. Although we understand further detail on the Defueling Plan will be provided in September, and while EPA supports the Navy’s commitment to providing iterations to the Defueling Plan as the planning continues, it is critical that initial planning demonstrates adequate preparedness.

The comments included as an enclosure to this letter represent EPA’s commitment to ensuring protection of human health and the environment. Comments #1-12 provide additional detail concerning the scope of the Defueling Plan. The remainder of the comments are grouped into categories based on topic. To ensure defueling occurs in a safe and expeditious manner, it is essential that the Navy respond to EPA’s comments prior to proceeding with any physical alterations or fuel movements. We request your response by September 7, 2022. Should any information in your response require confidential treatment, please provide two versions of the document containing the information, one redacted version to be shared with the public on our website and one unredacted version for EPA’s review. In addition, please identify any information in this letter or enclosure that you claim is confidential business

information or otherwise protected, within seven (7) days of receipt of this letter. If you make a confidentiality claim on this letter and enclosure or your response, EPA will disclose the information only to the extent, and by means of the procedures, specified in 40 C.F.R. Part 2, Subpart B. If you do not make a claim of confidentiality, we will assume that you are waiving confidentiality and the information you provide may be made public without further notice.

EPA has not released the findings of its inspections performed the week of February 28, 2022, under the Oil Pollution Prevention and Underground Storage Tank programs. EPA's inspection reports will be submitted under a separate correspondence and may require the Navy to address findings not communicated in the list of comments herein.


We commend the Navy on its efforts thus far to prepare to remove fuel safely and expeditiously from the RHBFSF. As this work progresses it is essential that not only EPA, but the public, is afforded the benefit of transparency and timely information sharing. We strongly recommend that the Navy offer opportunities for the public to pose questions, make suggestions, and express concerns prior to each key step in preparing for and carrying out defueling, including the near-term unpacking of the fuel lines. These efforts will foster engagement and build trust with the communities most invested in safe defueling of the facility.

Please direct questions about these comments to Nicole Moutoux, at (415) 271-0701, or Moutoux.nicole@epa.gov. Alternatively, you may have your attorney contact Rebekah Reynolds, at (415) 972-3916, or reynolds.rebekah@epa.gov.

Sincerely,

**Jordan,
Deborah**

Deborah Jordan
Deputy Regional Administrator

 Digitally signed by Jordan,
Deborah
Date: 2022.08.11 13:49:38
-07'00'

cc: CAPT Cameron Geertsema, NAVFAC Hawaii [email only]
(b) (6), NAVFAC Hawaii [email only]
Kathleen Ho, HDOH [email only]
COTP Aja Kirksey, USCG [email only]
Dustin Hubbard, US DOT PHMSA [email only]

Enclosure: EPA's Comments on the RHBFSF Defueling Plan

Enclosure: EPA's Comments on the RHBFSF Defueling Plan

This enclosure contains EPA's comments on the Defueling Plan submitted by the Navy on June 30, 2022. The first category, "Comments Regarding the Scope of the Defueling Plan," highlights EPA's need to ensure that the Navy is prepared for safe defueling. Other comments are grouped by category. EPA requests that the Navy provide a response to every comment.

Comments Regarding the Scope of the Defueling Plan

EPA's primary concern is that the Navy has not fully developed the requisite project planning tasks and organizational efforts needed to conduct defueling in a safe and time-efficient manner.

1. The Defueling Plan does not provide sufficient detail on individual timelines, statuses, inter-dependencies, and expected dates for completion of tasks identified as part of the Critical Path. Please provide a timeframe for when the Navy will submit a Critical Path Method (CPM) chart/schedule to EPA.
2. The Navy should present all key steps in the Defueling Plan in a graphic to be understood by anyone regardless of technical background. Please update Figure 1 of the current Defueling Plan to include planned Spill Prevention, Control, and Countermeasure (SPCC) and Facility Response Plan (FRP) preparedness (including spill response exercises); time periods for regulatory review; and anticipated community outreach events. Figure 1 may need to be updated regularly as the project progresses, and as such, EPA recommends that the creation date be clearly displayed to differentiate future versions of this figure.
3. Please provide a schedule for submitting future iterations of the Defueling Plan to the Regulatory Agencies.
4. Community engagement should be a component of the Defueling Plan. Share how the Navy will keep the public informed in preparation for, and during, defueling. Please explain how this information will be shared and when community outreach is expected to occur. This should include outreach before the lines are unpacked and before defueling begins.
5. EPA understands that further studies and assessments may affect the final list of repairs and operational measures necessary to defuel in a safe manner. These include, but are not limited to, assessments made under the National Defense Authorization Act for Fiscal Year 2022 and the results of EPA inspections under the SPCC/FRP and UST programs. Explain the process by which the Navy will incorporate this information into the Defueling Plan, and how necessary repairs or identified changes will be added or removed from the Defueling Plan.
6. Verify that the Navy has completed front-end engineering work to identify risks associated with the project. This work should be performed by individuals with expertise in construction, safety and spill response, engineering, and logistics. This work should be done before unpacking and any repair

efforts begin, since the outcome of this front-end engineering work may impact the schedule of the unpacking and repair efforts.

7. The Navy should complete a risk analysis, in the form of a risk assessment matrix or equivalent method, to determine the benefit/risk of each repair intended to address hydraulic surge events. Since each repair presents inherent risks (e.g., delaying the overall timeline for defueling, complicating operational procedures, or potentially causing a direct release), the Navy should evaluate the trade-offs between implementing all possible repairs versus a subset of necessary repairs which would allow defueling to occur more expeditiously. This evaluation should determine if defueling over a longer timeline and doing all repairs counterintuitively presents greater collective risk. EPA supports implementation of a plan to defuel the facility in the most expeditious manner without sacrificing safety and protection of the environment.
8. Prepare and submit piping flow diagrams and equipment plans (such as piping and instrumentation diagrams, or facility schematics) that clearly identify equipment and piping that will be used for the defueling process. EPA recommends developing plans, schematics, and/or inventory records that identify which facility structures will be decommissioned after defueling and which facility structures will remain in operation.
9. Provide an organizational chart for the Navy's Joint Task Force Red Hill including information on position descriptions and types of specialized expertise. This organizational structure should include a lead Health and Safety Officer or equivalent position.
10. Provide an estimated date by which the Navy will identify the Contractor Owned/Contractor Operated (COCO) facilities that will serve as a destination for fuel transfer.
11. EPA is aware that the Navy is preparing a plan to repair or replace the Aqueous Film Forming Foam Retention Line. Please provide an estimated date when this information will be submitted.
12. Verify if, and when, the Dresser Couplings in the main distribution piping at the Red Hill Gallery will be removed.

Comments Related to “Unpacking” Fuel Lines

The Navy has yet to submit a final operational plan for unpacking the (b) (3) (A) fuel lines connecting the Red Hill (RH) tanks to the underground pumphouse. The following comments concern the anticipated unpacking process.

13. Provide a date for when the Navy will submit a written operational plan for unpacking fuel transfer pipelines (Unpacking Plan).

14. EPA requires an explanation of how spill risks associated with unpacking will be addressed by FRP-type elements, even if an approved FRP is not in place prior to unpacking. This must include discussion of appropriate spill response drills and account for “worst case” spill scenarios that could occur during unpacking. Please clarify whether this information will be included in the Unpacking Plan, or in other preparedness documents (e.g., the Red Hill Response Plan, the Joint Base Pearl Harbor-Hickam (JBPHH) Integrated Contingency Plan).
15. EPA requests that the Navy clarify the scope of the Red Hill Response Plan referenced in Table 1, Item f of the Defueling Plan, and describe the differences between this document and an FRP providing coverage for the pipeline that connects the RH tanks to the underground pumphouse.
16. Confirm that EPA will be provided reasonable time to review and comment on the Unpacking Plan.
17. Confirm that the Unpacking Plan will include the total amount of fuel to be removed from the lines, an estimate of the time needed to move this fuel, a description of where the fuel will be moved, and a description of all operational procedures needed to conduct this work.
18. When the Unpacking Plan is submitted, please briefly explain the reason(s) why unpacking is required, addressing the types of repairs that warrant the activity, flammability classification of the fuels, and corresponding risks.
19. During the February 28 – March 4, 2022 Underground Storage Tank System Inspection, EPA identified two Underground Storage Tanks in the Lower Access Tunnel with no release detection method in place: the Zone 7 Sump for Fuel Oil Reclamation (FOR) and the Main Containment Sump for FOR. Confirm that the Navy will conduct tightness testing on these two tanks before fuel lines are unpacked in accordance with HAR §11-280.1- 43(3).

Comments On Spill Prevention, Response Readiness, and Operational Training

20. Explain how the Navy will prepare staff for changes to existing facility operations in a manner that will address the new operational risks. For instance, will the Navy conduct Management of Change (MOC) practices, or provide opportunity for future inclusion of MOC, in project planning efforts? MOC practices seek to ensure continued safety of workers and the environment through a systematic process that involves changes to operational procedures. Implementing an MOC or equivalent process would help ensure that new operational hazards are addressed, and existing hazards are not exacerbated.
21. Verify whether the Navy will implement new operational procedures addressing the use of butterfly valves as isolation valves at the underground pumphouse.

22. EPA and HDOH maintain authority to access the RHBFSF under paragraph 10. (b) of the AOC. Please describe the process by which EPA staff will be able to witness any repairs, upgrades, operational trainings, spill exercises, or other important on-site actions related to defueling.
23. Describe how the Navy will ensure fire prevention preparedness, specifically addressing how and when fire prevention and response authorities will be involved.
24. Briefly describe how the Navy plans to gather key operational and regulatory stakeholders to support and advise with operational readiness and spill prevention during the unpacking and defueling processes. This will include HDOH, EPA, U.S. Coast Guard (USCG), and industry partners identified as COCO Facilities.
25. A Process Hazard Analysis performed by Risktec and integrated into the SGH Final Assessment Report contains a list of 13 recommendations that should occur before defueling begins (Table 7, page 510 of 882). Six of these recommendations are not identified in the Defueling Plan. Clarify whether the Navy plans to address these six recommendations:
- #1 - Development of "...written procedures detailing operator actions, including which steps should be field verified by two individuals, in order to reduce the likelihood of loss of containment..."
 - #9 – “Consider adding observer and/or remote camera observation at Dresser Couplings during initial pressurization prior to defueling.”
 - #25 – “Include verification step in operations order that piping is restrained before starting any evolution involving transferring liquid from any tank in the Red Hill Gallery.”
 - #38 – “Develop a car-seal or lock administrative control system and identify safety-critical manual valves which should be controlled to reduce the likelihood of human error.”
 - #99 – “The roles, staffing, and resources for [NAVSUP FLCPH/Region Spill Management Team/Facility Response Team] need to be clearly defined, drilled and aligned prior to defueling operations.”
 - #107 – “Consider additional operators and technical support for defueling operations.”
26. Related to recommendation #9 in the SGA Assessment, explain what measures the Navy plans to take to detect a release of fuel without delay, should a release occur. Please consider direct observation by personnel, security cameras, and real-time vapor monitoring technologies at high-risk locations in the tunnel system.

27. Explain how the Navy will detect vacuum conditions in fuel pipelines that present a risk of inducing surge events. Explain what measures the Navy will take to train operators to identify and respond to such events.
28. Describe how the Navy will manage all Class I flammable liquids in the Lower Access Tunnel, and whether a permit-controlled method for managing the entry of such liquids into this zone will be implemented.
29. Provide a summary of facility piping assessments that are in-process or will begin before the start of defueling. Provide a brief description of how the Navy will incorporate these results into its Defueling Plan.
30. The USCG has extensive regulatory jurisdiction over the transfer of fuel into and out of vessels at the JBPHH piers and must be fully engaged in the planning and execution of the Defueling Plan. Provide an update on when, and how, the USCG will be involved in the defueling process.
31. Confirm that the USCG will be consulted on the SGH assessment and any potential necessary repairs to the pier prior to defueling.
32. Explain when and how the Navy will determine if repairs will need to be made to the Upper Tank Farm prior to defueling.
33. Page 17 of the Defueling Plan states that commercial pipelines may be used for the movement and storage of fuel. Please explain how the Navy will engage the U.S. Department of Transportation, Pipeline Hazardous Materials Safety Administration (DoT PHMSA) prior to defueling.
34. Explain how the Navy's Supervisor of Salvage, through their Oil Spill Response and Removal program will be prepared to respond to a worst-case discharge of fuel.

Comments Related to Protection of the Red Hill Shaft

The Navy has not specifically identified how the Red Hill Shaft will be protected in the event of a potential release during defueling. The following comments should be addressed as part of safe defueling.

35. Provide a connection status of the Red Hill Shaft to the JPBHH Public Water System (PWS) and verify whether it will be physically disconnected throughout the defueling process. Reactivation of the Red Hill Shaft for drinking water use is subject to approval by the HDOH Safe Drinking Water Branch.

36. Describe how the Navy will mitigate/minimize further potential contamination of the Red Hill Shaft, including:
- Provide an update to specifically account for any contamination hazards that currently exist or could be introduced in preparation for, or during, defueling.
 - Describe how the Navy will develop and apply a cross connection control program specifically addressing risks posed to the Red Hill Shaft. This should include an assessment of tunnel drains and/or other potential conduits to the underlying aquifer, including the Hume line found in Adit [REDACTED] that contributed to prior contamination of the aquifer.
37. Describe updates made to the JBPHH PWS's Risk and Resilience Assessment (RRA) that address the RHBFSF. The RRA should be updated prior to defueling.
38. Describe updates made to the JBPHH PWS's Emergency Response Plan (ERP), which should include adequate discussion of the RHBFSF. The ERP should be updated prior to defueling.
39. Describe how PWS staff and contractors will be adequately trained to respond to a release, should one occur. This should include ensuring copies of the updated ERP are available.
40. The Navy must establish emergency response plans that will be executed through an efficient leadership structure, with clearly defined processes, roles, and responsibilities in the event of a release emergency. Describe how the ERP will be implemented in coordination with a FRP, as required by the Oil Pollution Protection Act. Any conflicts between the two plans should be identified and mitigated prior to defueling. Both plans shall reference the other.