



**UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY  
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**STATE OF HAWAII  
DEPARTMENT OF HEALTH  
KA 'OIHANA OLAKINO  
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April 15, 2024

Rear Admiral Stephen Barnett  
Commander, Navy Region Hawai'i  
850 Ticonderoga St., Ste. 110  
Joint Base Pearl Harbor Hickam, HI 96860-5101  
(Sent via Electronic Mail)

Dear Rear Admiral Barnett:

**Subject:** Response to the Navy's April 3, 2024 Letter Regarding the *Draft Natural Source-Zone Depletion Work Plan*

On February 22, 2023, the U.S. Department of the Navy (Navy) submitted the *Draft Natural Source-Zone Depletion Work Plan* (Work Plan), dated February 2023 for informational purposes to the Hawai'i Department of Health (DOH) and U.S. Environmental Protection Agency (EPA), collectively the "Regulatory Agencies" (RAs). The RAs did not request this document, and the Navy did not indicate how this Work Plan fits into its overall assessment and investigation of releases from the underground storage tank (UST) system. In a letter, dated April 3, 2024, the Navy stated that if the RAs do not provide comments on the Work Plan by April 15, 2024, the Work Plan will be considered final. Therefore, the RAs have completed a cursory review of the Work Plan and have the following major comments and concerns:

1. The Work Plan appears to cover only Adit 3, which is a small portion of the overall site, and conditions at Adit 3 are unlikely to be representative of conditions throughout other portions of the site. Consequently, data gathered, and conclusions drawn as part of the proposed natural source-zone depletion (NSZD) study are likely not applicable to the site as a whole.
2. The RAs believe that conducting a NSZD study prior to defining the location of the principal mass of contamination, as well as its nature and extent, is premature. As the source zone within the Adit 3 location has not been adequately characterized, the usefulness of data collected under this Work Plan is questionable. In addition, the Navy is currently in the process of conducting a soil vapor extraction pilot study, which would likely confound the results of a NSZD study in this area.

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3. As conducting a NSZD study now does not provide an avenue for the Navy to eliminate active remediation from consideration, the RAs recommend the Navy focus its efforts on assessing and investigating releases from the Red Hill UST system at this time.

If the Navy plans to conduct a NSZD study as part of the investigation of releases from the UST system, it should first be included in the forthcoming Phase II Closure Plan/Site Assessment Plan that is to be submitted to the RAs under the EPA's 2023 Administrative Consent Order and the DOH's 2022 Emergency Order. This will allow clear identification of the study's data quality objectives and how they support evaluation and selection of a site remedy.

Please note, the RAs may provide additional technical comments that are beyond the scope of this letter. For a preliminary technical evaluation of conducting NSZD studies at the Red Hill site, we suggest that the Navy review the assessment of the Navy's previous NSZD study by Beckett et al., 2022. We look forward to providing technical input on a future NSZD Work Plan.

**Reference:** Beckett, G.D., Thomas, D., and Whittier, R. 2022. Technical Commentary to: Direct Aerobic NSZD of a Basalt Vadose Zone LNAPL Source in Hawaii, McHugh et al. JCH #235 (2020). Journal of Contaminant Hydrology. 251. 104070.  
<https://www.sciencedirect.com/science/article/abs/pii/S0169772222001188>

If you have any questions regarding this letter, please contact Matthew Cohen, EPA Red Hill Project Coordinator, at [Cohen.Matthew@epa.gov](mailto:Cohen.Matthew@epa.gov) or (415) 972-3691; or Kelly Ann Lee, DOH Red Hill Project Coordinator, at [KellyAnn.Lee@doh.hawaii.gov](mailto:KellyAnn.Lee@doh.hawaii.gov) or (808) 586-4226.

Sincerely,

/s/

Matthew Cohen PG  
Red Hill Project Coordinator  
U.S. Environmental Protection Agency, Region 9

/s/

Kelly Ann Lee  
Red Hill Project Coordinator  
State of Hawai'i, Department of Health

cc by email only:

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