



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
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June 17, 2015

Dr. Keith Kawaoka, Deputy Director
Hazard Evaluation and Emergency Response Office
Department of Health
919 Ala Moana Blvd., Room 206
Honolulu, Hawaii 96814

Dear Dr. Kawaoka:

Comments on the Draft Red Hill Bulk Fuel Storage Facility
Administrative Order on Consent (AOC) and Scope of Work (SOW) by the
U. S. Navy and Hawaii Department of Health

Thank you for the opportunity to submit our comments on the draft Red Hill AOC and SOW.

As a past and continued member of the Task Force Committee, the DLNR/CWRM acknowledges that the Red Hill Bulk Fuel Storage Facility (RHBFSF) is a 'mission critical' facility for maintaining security through the presence of the military in the Pacific, and very likely will need to remain in service. However, the facility is 70+ years old, and while efforts have been made to maintain and upgrade the entire system, the facility's 20 tanks do not meet the minimum requirements of every commercial underground storage tank installed in Hawaii since 1988: double wall construction, combined with leak detection sensors.

During an April 16, 2015 public meeting, the Navy disclosed that the January 2014 release of up to 27,000 gallons of JP-8 from Tank 5 was due to poor contractor workmanship. This disclosure draws into question the effectiveness of the Navy's Quality Assurance/Quality Control (QA/QC) program, and more importantly, the effectiveness of the Navy's inspectors to ensure the proper completion of repairs to the fuel system, and in this case, repairs to Tank 5, located 100 feet above an important drinking water aquifer.

While the potable water withdrawn from the production wells proximal to the RHBFSF currently meets Safe Drinking Water standards, the long history of releases from this facility (and most recently the January 2014 release from Tank 5), makes it very clear that the drinking water aquifer beneath the site, which already has been impacted, is at serious risk to significant impacts from historical, as well as potential future releases.

The release history of this facility (~150,000 gallons [Final: 2008 RHBFSF Groundwater Protection Plan]) underscores the need for the Navy to accelerate their efforts to implement the following:

- 1) upgrade the facility to effectively eliminate future releases,
- 2) locate and delineate the vertical and horizontal extent of released fuel, and
- 3) develop and implement an effective mitigation/recovery of the released fuel to protect the drinking water supply in the vicinity of the facility.

We offer more detailed specific comments as follows:

1. AOC, Page 5, 4 (k): Aquifer names should be correctly labeled as Aquifer System Areas (ASA).
2. AOC, Page 5, 4 (k): Correction, the current Waimalu and Moanalua ASA properties are:
Waimalu ASA covers 54,227 acres, and has a sustainable yield (SY) of 45 million gallons per day
Moanalua ASA covers 14,713.5 acres, and has a SY of 16 million gallons per day.
3. AOC, Page 18, 13. (a): The Department of Health, the Honolulu BWS, and the DLNR/CWRM are all acting on behalf of public's safety by providing manpower and logistics in supporting and assisting the Navy in monitoring and managing this serious threat to Honolulu's drinking water supply from a Federally owned and managed facility. Each of these agencies should be reimbursed for their reasonable and appropriate efforts and expenditures.
4. SOW, Page 1, Introduction: In accord with House Resolution 78 (Extending the Task Force), House Concurrent Resolution 66 (Collaboration Between the State and the Navy), and C&C Honolulu Resolution 15-84, CD1, FD1 (Expediently Implement the Task Force Recommendations), the "Parties" should include the Navy, DLA, DOH, EPA, BWS, and DLNR/CWRM.
5. SOW, Page 1, (2), 2nd sentence: Best Available Practicable Technology (BAPT). This study should identify and evaluate all available, and applicable, (including emerging) technologies.

4th sentence: Given the gravity of the risks, once a BAPT has been chosen and approved, concerted efforts should be made to complete the upgrades on a more timely schedule than 22 years.
- How will the order of the Tanks to receive the BAPT be determined?
- How will a change in the BAPT be implemented?
6. SOW, Page 1, (3): Until the in-service tanks are successfully fitted with the chosen BAPT, annual testing, at a minimum, should be conducted.
7. SOW, Page 2, (4): Before additional ground water modelling efforts are conducted, a comprehensive well head (i.e., reference point for depth to GW measurements) elevation survey of all currently monitored wells, combined with at least two synoptic water level surveys in all accessible monitoring wells, is to be completed and submitted to the DOH within 30 days of the acceptance of the AOC.
8. SOW, Page 2, Overall Project Management, 1.1: Subject matter experts (BWS, DLNR/CWRM), particularly the Red Hill Task Force members, should be invited to attend and provide comments at the scoping meetings. (See Comment 4. above)
9. SOW, Page 2, 1.2 Community Involvement: To promote transparency and improve public confidence, the Navy and DLA should compile all past historic records of leaks and submit them to the DOH, to augment and complete the existing DOH public record.
10. SOW, Page 2, 1.5 Communication: Define "effective and timely", (e.g., Periodic GW Monitoring reports must be submitted to the regulatory agency (DOH) no later than 30 days after collection of samples.
11. SOW, Page 5, 3.5 TUA: How will the tanks be ranked for upgrading to the BAPT?

12. SOW, Page 11, 6. Investigation and Remediation: This section only refers to the January 2014 release. This facility has a long history of releases, totally up to 150,000 gallons since 1944. The Investigation and Remediation effort should address the suite of products released that threaten the ground water resource beneath the facility.
13. SOW, Page 12, 7. Ground Water Protection and Evaluation: This section describes Groundwater Flow and Fate and Transport models, followed by a section describing a Ground Water Monitoring Well Network. To improve ground water modelling relevance and accuracy, additional groundwater monitoring wells should be installed before modelling efforts are begun to provide actual ground water data for model input and calibration. The Groundwater Monitoring Well Network program should, at a minimum, include a discussion of the following:
 - Specific wells (existing and proposed) to be monitored and sampled.
 - Analytical suites (including analytical methods, detection limits, and applicable action levels) to be used. This list of suites should include those to detect released products, and general ground water chemistry to assess in-situ product attenuation and degradation.
 - The Program should also include a schedule for monitoring (i.e., quarterly), and a discussion of duration of monitoring, responsible parties, and monitoring data storage and dissemination.

Lastly, with the urgency of this issue, the time frames to complete the Reports should be shorter.

Currently, the approximate time frames in the SOW are:

- Sect 2, TIRM Procedure Report Implementation (~9 months),
- Sect. 3, TUA Decision Document and Implementation (~20 Months),
- Sect. 4, New Release Detection Alternatives Decision Document and Implementation (~24 Months),
- Sect. 5, Decision on Need for & Scope of Modified Corrosion and Metal Fatigue Practices (~35 Months),
- Sect. 6, Investigation and Remediation of Release Decision Document and Implementation (~31 Months),
- Sect. 7, Contaminant Fate and Transport Model Report (~32 Months),
- Sect. 7, Ground Water Monitoring Well Network Decision Document and Implementation (~20 Months),
- Sect. 8, Risk/Vulnerability assessment (~22 Months).

We respectfully ask that these timeframes be shortened where reasonably possible, especially establishing and implementing the ground water monitoring network to provide the scientific data and evidence to establish the location of the current plume of contamination.

Sincerely,



SUZANNE D. CASE
Chairperson