STATE OF HAWAII DEPARTMENT OF HEALTH SOLID AND HAZARDOUS WASTE BRANCH UNDERGROUND STORAGE TANK SECTION

EMERGENCY ORDER

TO: THE UNITED STATES DEPARTMENT OF THE NAVY, c/o REAR ADMIRAL TIMOTHY KOTT, COMMANDER NAVY REGION HAWAII,

850 Ticonderoga St., Suite 110 JBPHH, Hawaii 96860-5101,

Respondent.

Docket No. 21-UST-EA-02

Re: Emergency Change-In-Service and Defueling of 20 Underground Storage Tanks, Red Hill Bulk Fuel Storage Facility

This Emergency Order ("EO") is an administrative action initiated pursuant to chapters 91 and 342L of the Hawaii Revised Statutes (HRS) and chapters 11-1 and 11-280.1 of the Hawaii Administrative Rules (HAR) by the DEPARTMENT OF HEALTH (the "Department") against THE UNITED STATES DEPARTMENT OF THE NAVY, c/o ADMIRAL TIMOTHY KOTT, COMMANDER NAVY REGION HAWAII (the "Respondent") and is based upon recent impacts on the Respondent's drinking water system incident to the operation of the Red Hill Bulk Fuel Storage Facility (the "Facility"). Respondent is the owner and operator of the Facility. This EO concerns only the issues identified herein and does not function to preclude or limit actions by any public agency or private party. The Department reserves the right to bring other actions as may be necessary to protect public health and the environment.

I. AUTHORITY AND BACKGROUND

Statutes/Rules	Section 342L-9, HRS, states that:
	"§342L-9 Emergency powers; procedures. (a) Notwithstanding any other law to the
	contrary, if the governor or the director determines that an imminent peril to human
	health and safety or the environment is or will be caused by:
	(1) A release;
	(2) Any action taken in response to a release from an underground storage tank or
	tank system; or
	(3) The installation or operation of an underground storage tank or tank system;
	that requires immediate action, the governor or the director, without a public hearing,
	may order any person causing or contributing to the peril to immediately reduce or
	stop the release or activity, and may take any and all other actions as may be
	necessary. The order shall fix a place and time, not later than twenty-four hours
	thereafter, for a hearing to be held before the director.
	(b) Nothing in this section shall be construed to limit any power which the governor
	or any other officer may have to declare an emergency and act on the basis of such
	declaration, if such power is conferred by statute or constitutional provision, or
	inheres in the office."

Situation

On or about November 28, 2021, the Respondent began receiving complaints from water users from the Respondent's water system regarding a gas or fuel odor from their drinking water.

On or about December 2, 2021, the Respondent identified the source of fuel contamination to be the Red Hill Shaft, one of the drinking water sources that services the Respondent's water system.

As of December 3, 2021, the Department received nearly 500 complaints, mostly from residents or customers serviced by the Respondent's water system complaining of fuel or chemical smell from their drinking water.

Background

The are no on-site remedies available to treat the water prior to distribution.

On January 13, 2014, the Respondent discovered a loss of fuel from Tank #5 of its twenty (20) bulk fuel storage tanks (the "Bulk Fuel Storage Tanks") at the Facility and immediately notified the Department and the United States Environmental Protection Agency ("EPA") (collectively the "Regulatory Agencies"). On January 16, 2014, the Respondent verbally notified the Department and EPA of a confirmed release of a regulated substance from Tank 5. On January 23, 2014, the Respondent provided written notification to the Department. The Respondent estimated the fuel loss at approximately 27,000 gallons.

On 2015, the Respondent, the Defense Logistics Agency and the Regulatory Agencies entered into an Administrative Order on Consent (the "AOC") to take steps to ensure that the groundwater resource in the vicinity of the Facility is protected and to ensure that the Facility is operated and maintained in an environmentally protective manner.

On March 17, 2020 and June 2, 2020, the Respondent notified Department of a release of a regulated substance to surface water at Hotel Pier. In a letter dated June 30, 2021, the Department made the determination that a release occurred from the Facility.

On May 7, 2021, the Respondent reported a pipeline release of a regulated substance that occurred on May 6, 2021 that released approximately 1,000 gallons of fuel, which a significant portion was recovered. Based on the Respondent's report of Root Cause Analysis of the JP-5 Pipeline Damage, dated September 7, 2021, the pipeline releases near Tanks #18 and #20 were due to a dynamic transient surge resulting from the Control Room Operator failure to follow the valve opening and closing sequence. The Respondent estimated the amount of JP-5 released in the lower Red Hill Tunnel was 1,618 gallons, of which 1,580 gallons were recovered. The Respondent reported that 38 gallons were unaccounted for and, therefore, released into the environment.

On July 23, 2021, the Respondent submitted a confirmed release notification form that indicated that approximately 150 gallons of a regulated substance was released at Kilo Pier in a boomed area of the surface water. Approximately 110 gallons were recovered.

On November 9, 2021, the Department was informed by the media of another surge event that occurred on September 29, 2021. After an inquiry by the Department, on November 12, 2021, the Respondent asserted on November 17, 2021 that no release occurred during the event.

On November 20-21, 2021, the Respondent reported a release of water and fuel from a crack in a valve in the fire suppression drain line and at the time about 9,000 gallons were recovered. According to the Respondent's press release,

approximately 14,000 gallons of water and fuel were contained and recovered. The incident occurred ¼ mile downhill from the bulk fuel storage tanks. The Respondent's investigation regarding the release is ongoing.

On November 29, 2021, Admiral Samuel Paparo, Commander, U.S. Pacific Fleet ordered a command investigation into the November 20, 2021, incident and reopened the investigation on the May 6 incident.

On December 5, 2021, the Respondent submitted to the Department a Confirmed Release Notification Form, for the November 20, 2021 release of approximately 14,000 gallons of a mix of water and fuel from a fire suppression drain line in the tunnel downhill of the Bulk Fuel Storage Tanks.

Additional justification

The Respondent has consistently been unable to submit AOC deliverables to the satisfaction of the Department.

The 2021 incidences directly refute the Respondent's claims in the Tank Upgrade Alternatives Decision Document that the Red Hill "system of systems" is protective of groundwater. The Respondent's tank upgrade proposal recommends continuing current design and operation. The Regulatory Agencies disapproved the Respondent's submission in 2020 and the Respondent's resubmission is significantly flawed and fails to adequately address key regulatory concerns.

The Respondent's Groundwater Flow Model outputs do not match important field conditions, and therefore are unreliable for decision-making. Beginning no later than 2018, the Regulatory Agencies have repeatedly and consistently provided, and Respondent has consistently rejected, significant technical corrective comment on the Respondent's Conceptual Site Model, the purpose of which is to describe the hydrogeologic site conditions, and Respondent's preliminary Groundwater Flow Models, the purpose of which is to determine groundwater movement as may be related to contaminant transport. The deficiencies in both models have not been adequately addressed.

The Investigation and Remediation of Releases report is based on the Respondent's groundwater flow model and therefore cannot be accepted as an appropriate long-term remedy for all types of future releases. Thus, significant progress to mitigate the risk of future releases has not been made.

In addition, water quality data show significant increases in total petroleum hydrocarbon as oil detections at Red Hill Shaft and relative increases around the Bulk Fuel Storage Tanks. While the May 6 incident is a possible cause of the increase, the size of the impact area shown in the well data does not appear to correlate with the Respondent's description of the incident (release of 38 gallons to the environment—far less than would be expected given the increased concentrations observed in the well field since the May 6 event). This type of uncertainty diminishes timely and accurate identification of risk and associated response measures. This uncertainty, together with delays in receiving laboratory data, limits the Respondent's ability to activate appropriate spill response actions and opportunities for rapid response.

The November 20, 2021 incident may have also released a mixture of water and fuel into the environment. The incident location is significantly closer to the Red Hill Shaft. This additional uncertainty without in-place recovery and remedial measures increases risk.

The Facility does not provide necessary environmental protection to rapidly identify and remediate fuel leaks. The Facility lacks infrastructure and procedures to rapidly identify and contain subterranean fuel spills and treat drinking water to ensure safe

and clean drinking water is continuously available to Respondent's water customers.

Given the number of incidences that have occurred at the Facility within the last year, and in view of the current drinking water contamination, the Respondent has not demonstrated that immediate and appropriate response actions are available, and therefore cannot ensure that immediate and appropriate response actions will be available should another release occurs in the future. The risk of any additional contaminants in the aquifer or lack of immediate action now may exacerbate the current situation and further jeopardize our aquifer system.

II. ORDER

Respondent is hereby ordered to:

- 1. Immediately suspend operations including, but not limited to, fuel transfers at the Bulk Fuel Storage Tanks at the Facility. Respondent shall, however, maintain environmental controls, release detection and release response protocols, and compliance with applicable regulations.
- 2. Take immediate steps to install a drinking water treatment system or systems at Red Hill Shaft to ensure distribution of drinking water conforms to the standards prescribed by the Safe Drinking Water Act and applicable regulations and minimize movement of the contaminant plume(s). The treatment system(s) shall be reviewed and approved by the Department prior to installation and shall be installed as expeditiously as practicable.
- 3. Within 30 days of receipt of this EO, submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess the Facility operations and system integrity to safely defuel the Bulk Fuel Storage Tanks. Upon the Department's approval of the assessment, workplan and implementation schedule, conduct necessary repairs and make necessary changes in operations to address any deficiencies identified in the assessment and workplan. Corrective actions shall be performed as expeditiously as possible.
- 4. Within 30 days of completion of required corrective actions under Item 3, defuel the Bulk Fuel Storage Tanks at the Facility. Any refueling shall be subject to a determination by the Department that it is protective of human health and the environment.
- 5. Within 30 days of receipt of this EO submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess operations and system integrity of the Facility to determine design and operational deficiencies that may impact the environment and develop recommendations for corrective action. Submit the assessment, proposed work and recommendations for corrective action to the Department with an implementation schedule. Upon the Department's approval, perform work and implement corrective actions. Corrective actions shall be performed as expeditiously as possible.

This EO becomes final and enforceable after a hearing which is currently scheduled for December 7, 2021, at 1:00 p.m. with the Department's Hearings Officer via Zoom, or other similar electronic platform (with links to be provided to both Respondent and the public for their participation). If you wish to waive your right to contest this EO at a hearing, you may communicate this intention to the Hearings Officer, c/o Director of Health, Department of Health, 1250 Punchbowl Street, Third Floor, Honolulu, HI 96813 and to the Solid and Hazardous Waste Branch, Department of Health, 2827 Waimano Home Road #100, Pearl City, Hawaii 96782. Waiver of the hearing will obligate you to comply with this EO.

At the hearing, you may seek to avoid any obligations prescribed in this EO, and the Department may seek to impose any additional obligations necessary to protect public health and the environment. Parties may present evidence and witnesses on their behalf, and may examine and cross-examine all witnesses

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and evidence presented by the Department. Parties may be represented by attorneys at their own expense, or they may represent themselves. Any hearing will be in accordance with chapter 91, HRS, and chapter 11-1, HAR. The final administrative decision will be made at the conclusion of the hearing and will be based upon all the evidence presented during the hearing.

If you have questions, please call Lene Ichinotsubo, P.E., Acting Chief of the Solid and Hazardous Waste Branch at (808) 586-4226. If you have special needs due to a disability and require accommodation to aid you in participating in the hearing or pre-hearing conference, please contact the Hearings Officer at (808) 586-4409 (voice) or through the Telecommunications Relay Service (711), at least ten (10) working days before the hearing or pre-hearing conference date.

DATED: Honolulu, Hawaii Dec 6, 2021

DEPARTMENT OF HEALTH
STATE OF HAWAII

Kathleen Ho

KATHLEEN S. HO
Deputy Director for Environmental Health

APPROVED AS TO FORM:

Wade H. Hargrove III Deputy Attorney General