MEMORANDUM OF UNDERSTANDING
BETWEEN
HAWAII DEPARTMENT OF HEALTH
AND
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 9
CONCERNING
THE RED HILL BULK FUEL STORAGE FACILITY

I. PURPOSE

The purpose of this Memorandum of Understanding ("MOU") is to facilitate successful coordination of a partnership between the Hawaii Department of Health Services ("DOH") and the United States Environmental Protection Agency ("EPA"), Region 9 ("Agencies") in overseeing performance by the United States Department of Navy ("Navy") and the Defense Logistics Agency ("DLA") of all work under the *Administrative Order on Consent* ("AOC") and *Attachment A - Statement of Work* ("SOW") regarding the field-constructed bulk fuel underground storage tanks ("USTs") and associated piping at the Red Hill Bulk Fuel Storage Facility ("Facility"), located near Pearl Harbor, on the island of Oahu in the State of Hawaii. It is the goal of both Agencies 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.

II. BACKGROUND

The Navy and DLA are the operators of the Facility. The Facility includes twenty (20) field-constructed steel USTs ("Tanks"). The Tanks are constructed of steel, encased by an estimated minimum of 2.5 to 4 feet of concrete and surrounded and supported by basalt bedrock. Each Tank has a fuel storage capacity ranging from approximately 12.5 to 12.7 million gallons for a total of approximately 250 million gallons of fuel. However, two (2) of the twenty (20) Tanks are not currently in operation. The Facility was constructed and became operational in the 1940s. The Tanks and related components at the Facility are unique. The Tanks at the Facility have been used at various times to store the following fuels: diesel marine fuel, diesel oil, Navy Special Fuel Oil ("NSFO"), Navy distillate ("ND"), aviation gasoline ("AVGAS"), motor gas ("MOGAS"), Jet Propulsion Fuel No. 5 ("JP-5") and Jet Propulsion Fuel No. 8 ("JP-8"). Presently, the tanks contain three types of fuels: JP-5, JP-8, and diesel marine fuel.

The Waimalu and Moanalua Aquifers, which are underground sources of drinking water, are located near the Facility. The Waimalu Aquifer covers an area of 15,193 acres and the Moanalua Aquifer covers an area of 4,442 acres. Navy Well 2254-01 is located west and hydraulically downgradient from the Facility. This well feeds into the Joint Base Pearl Harbor-Hickam Water System. The Honolulu Board of Water Supply's ("BWS") Halawa Shaft, which is part of a public water system, is near the Facility. The BWS's Moanalua Well, which is part of a public water system, is also near the Facility.

The first report by Navy to DOH of a release from the Facility occurred on November 10, 1998, when petroleum-stained basalt cores were discovered beneath the Tanks. In the early

2000s, Navy performed transverse cores beneath each tank and discovered evidence of staining beneath nineteen (19) of the twenty (20) Tanks. On December 9, 2013, Navy placed one of the Tanks (Tank #5) at the Facility back into service after it had undergone routine scheduled maintenance. The maintenance work consisted of cleaning, inspecting, and repairing multiple sites within the tank. Upon placing Tank #5 back into service, Navy commenced filling the tank with petroleum. On January 13, 2014, Navy discovered a loss of fuel from Tank #5 and immediately notified DOH and EPA. On January 13, 2014, Navy began transferring fuel from Tank #5 to other Tanks at the Facility. The transfer of all fuel from Tank #5 was completed on January 18, 2014. On January 16, 2014, Navy verbally notified DOH and EPA of a confirmed release from Tank #5. On January 23, 2014, Navy provided written notification to DOH. Navy estimates the fuel loss at approximately 27,000 gallons. The total amount released to the environment, both attributable to the January 2014 event and historical releases, is unknown. Following the January 2014 release, Navy increased the frequency of monitoring and performed additional monitoring of Navy Well 2254-01. Navy shall continue to monitor Navy Well 2254-01 in accordance with the Groundwater Protection Plan approved by DOH and that will be updated in accordance with the SOW. Current drinking water monitoring results confirm compliance with federal and state Maximum Contaminant Levels for drinking water both before and after the January 2014 release.

Marine diesel and jet fuels in general, and Jet Propulsion Fuels 5 and 8 (JP-5 and JP-8) in particular, are composed of a broad, dynamic and heterogeneous mixture of chemical constituents. Chronic exposure to these constituents can be harmful to human health. The rates at which these constituents naturally degrade in the environment are highly variable. In order to address the endangerment to health and the environment posed by the Tanks, EPA and DOH have entered into an AOC with the Navy and DLA, effective September 28, 2015, using both federal and state authorities.

III. AUTHORITY

A. DOH

The State of Hawaii obtained EPA state program approval, effective on September 30, 2002, for Hawaii's UST program to operate in lieu of EPA's UST program under Subtitle I of the Resource Conservation and Recovery Act of 1976 ("RCRA"), as amended, 42 United States Code ("U.S.C.") § 6901 *et seq.* DOH entered into the AOC in accordance with its authority, vested in the Director of Health, to regulate USTs in conformance with EPA state program approval and the provisions of chapters 340E, 342D and 342L of the Hawaii Revised Statutes ("HRS") and the rules promulgated pursuant thereto.

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B. EPA

EPA entered into the AOC under the authority of Section 7003 of the Resource Conservation Recovery Action, 42 U.S.C. § 6973. This provision authorizes EPA, upon receipt of evidence that the past or present handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment, to bring suit against any person who has contributed or is contributing to such handling, storage, transportation or disposal to restrain such person from such handling, storage, treatment, transportation, or disposal, to order such person to take such other action as may be necessary, or both. In addition, the provision authorizes EPA to take other action, including but not limited to, issuing such orders as may be necessary to protect public health and the environment.

IV. PARTIES AND ROLES

DOH's UST section is charged with implementing and enforcing the approved Hawaii state UST program, pursuant to Section 9004 of RCRA Subtitle I, 42 U.S.C. § 6991c, on behalf of the State of Hawaii.

State of Hawaii Department of the Attorney General provides support to DOH's UST section for all general legal matters.

EPA Region 9's UST Section ("R9USTS") works to prevent leaks from USTs, clean up contaminated sites, and redevelop formerly contaminated sites into beneficial use. The R9USTS oversees Hawaii's UST and Leaking UST programs.

EPA Region 9's Office of Regional Counsel ("R9ORC") provides support to the R9USTS for all general legal matters.

DOH and EPA have established project coordinators for overseeing the work performed by the Navy and DLA under the AOC. The DOH Project Coordinator is Steven Chang. The EPA Project Coordinator is Bob Pallarino. DOH or EPA Region 9 may change its project coordinator at any time. The Agency making the change intends to provide the other Agency with notice of such change as soon as possible but no later than within fourteen (14) days of making such a change.

V. COORDINATION

DOH and EPA Region 9 each intend to keep the other Agency apprised of its plans and progress and communications related to the AOC in order to improve coordination and prevent

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either actual or apparent conflicts.

To facilitate coordination, representatives of DOH and EPA Region 9 plan to hold regular conference calls, at least monthly, to discuss the progress of each Agency's activities and any other issues relevant to the coordination of the Agencies. Additionally, the Agencies intend to conduct regular ad hoc communications to keep each other informed about deliberation on decisions related to all activities under the AOC and inquiries from elected officials, the public, government agencies, or outside organizations related to the AOC.

It is expected that if one of the Agencies organizes or is invited to a meeting or conference call with the Navy or DLA or third party/stakeholder related to work under the AOC, that organizing or invited Agency plans to inform the other Agency of such meeting or conference call and provide an opportunity for the other Agency to participate or seek to have the other Agency invited. If advance notice is not possible and the non-organizing Agency is unable to participate or is not invited, the organizing or invited Agency, upon request, resolves to provide the non-organizing or non-invited Agency a summary of the content of the communications highlighting any decisions and other key issues involved in the communications.

The Agencies intend to keep each other informed of all external communication related to the Facility and the AOC including press inquiries, inquiries from elected officials, communication from the public, and communications with contractors retained to support the Agencies in their oversight responsibilities related to the AOC.

Both DOH and EPA Region 9 plan to require the Navy and DLA to submit all deliverables simultaneously to the Project Coordinator for each Agency. It is the expectation of the Agencies that immediately upon receipt of such deliverables, the Project Coordinators plan to coordinate with each other and establish a deadline and a schedule to coordinate the Regulatory Agencies' response to such deliverable.

The Agencies expect that all formal correspondence with the Navy and DLA, including but not limited to all written interim and final approvals, disapprovals, comments, or AOC modifications related to the activities pursuant to the AOC will be discussed between the Agencies and sent on joint letterhead and signed by both Agencies, unless otherwise agreed by the Agencies. It is also the expectation of the Agencies, that the Agencies will share draft documents and correspondence with each other prior to sharing with the Navy and DLA. The Agencies expect that such sharing will include an opportunity to comment. The sharing Agency is expected to specify a time frame available to the other Agency to provide comment. The sharing Agency expects the other Agency to provide input within a reasonable time specified by the sharing Agency. Failure to provide input within the prescribed time frame is considered

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concurrence, unless such failure results from a delay outside the control of the other Agency.

VI. DISCUSSION AND RESOLUTION OF DIFFERENCES

Both Agencies' Project Coordinators expect to use their best efforts to resolve disagreements between the Agencies. In the event that one Agency is dissatisfied with the proposed response to a particular deliverable or technical or legal issue, that Project Coordinator may elevate the dispute as provided herein.

If both DOH and EPA Region 9 agree that there is time for an informal consultation, the Project Coordinators and their immediate supervisors intend to consult.

If either of the Agencies determine there is not time for informal consultation, or if, after informal consultation the dispute remains unresolved, the Agencies intend for a formal consultation to be held with the Division Director of the Land Division for EPA Region 9, or designee, and the Deputy Director of DOH, or designee, so that they can resolve the dispute.

During the MOU dispute resolution process, the Agencies expect not to make decisions or send correspondence articulating a position or decision on the matter in question to the Navy, DLA or other third parties until the matter is formally resolved by the senior official decision-makers referenced in the previous paragraph.

Both Agencies intend to exhaust dispute resolution as provided in this MOU and the AOC prior to taking any other action.

VII. GENERAL PROVISIONS

Effective Date. This MOU is effective on the date of signature of the last signing Agency.

Distribution. The Agencies intend for this MOU to apply to all communications outside their respective Agencies related to the AOC. It is the expectation of the Agencies' that the Project Coordinators will share this MOU with staff and management within their respective Agencies who may have such external communications.

Duration. This MOU is intended to remain in effect until the Agencies' oversight obligations of the Navy and DLA's responsibilities pursuant to the AOC are completed.

Modification. This MOU may be modified at any time per the mutual written consent of the Agencies.

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Termination. An Agency may terminate its participation in this MOU at any time by providing written notice to the other Agency, at least fourteen (14) days in advance of the desired termination.

Legal Effect. This MOU does not create any right, or benefit, either substantive or procedural, enforceable by law or equity, by persons who are not party to this agreement, against DOH or EPA Region 9, their officers or employees, or any other person. This MOU does not direct or apply to any person outside of DOH and EPA Region 9.

Confidentiality. The Agencies intend to follow the "Common Interest Confidentiality Agreement" between the DOH and State of Hawaii Department of the Attorney General, and the EPA and DOJ effective May 28, 2014.

VIII. SIGNATORIES

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ON BEHALF OF DOH:

DATED: 12/24/15

Keith Kawaoka, Deputy Director

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ON BEHALF OF EPA:

DATED: 12/14/15

Jeff Scott, Division Director, Land Division