

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9

THE DEPARTMENT OF HEALTH
STATE OF HAWAII

IN THE MATTER OF:

THE UNITED STATES DEPARTMENT)	
OF THE NAVY)	EPA DKT NO. RCRA 7003-R9-2015-01
)	
AND)	DOH DKT NO. 15-UST-EA-01
)	
DEFENSE LOGISTICS AGENCY)	
)	
RESPONDENTS)	
)	
RED HILL BULK FUEL STORAGE)	
FACILITY, OAHU, HAWAII)	

ADMINISTRATIVE ORDER ON CONSENT

1. INTRODUCTION

(a) This administrative order on consent (“AOC”) is entered into voluntarily by the DEPARTMENT OF HEALTH, STATE OF HAWAII (“DOH”); the UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (“EPA”) Region 9; the UNITED STATES DEPARTMENT OF THE NAVY (“Navy”), acting by and through the COMMANDER, NAVY REGION HAWAII (“CNRH”); and DEFENSE LOGISTICS AGENCY (“DLA”). DOH, EPA, Navy, and DLA are collectively referred to as the “Parties.” DOH and EPA are collectively referred to as the “Regulatory Agencies.” This AOC is a joint administrative action taken by the DOH and EPA concurrently and pursuant to their respective state and federal authorities to regulate underground storage tanks (“USTs”) and waste and to protect drinking water, natural resources, human health, and the environment.

(b) This AOC provides for the performance by Navy and DLA of a release assessment, response(s) to release(s), and actions to minimize the threat of future releases in

connection with the field-constructed bulk fuel USTs, surge tanks, pumps, 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, and on any property that may be affected now or in the future by petroleum or other substances released from the Facility, as specified in Attachment A (“Statement of Work” or “SOW”). The term “Site” as used in this AOC includes the Facility and any area where petroleum or other substances released from the Facility come to be located. The primary objectives of this AOC are 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.

(c) Navy and DLA’s participation in this AOC shall not constitute or be construed as an admission of liability. Navy and DLA neither admit nor deny the factual allegations and legal conclusions set forth in this AOC (Sections 4 and 5, Findings of Fact and Conclusions of Law).

(d) The Parties acknowledge that this AOC has been negotiated in good faith and that this AOC is fair, reasonable, protective of human health and the environment, and is in the public interest.

2. JURISDICTION

(a) 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 enters into this 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.

(b) EPA Region 9 enters into this AOC pursuant to the authority vested in the Administrator of EPA by Section 7003 of RCRA, 42 U.S.C. § 6973, which authority has been delegated to the Regional Administrators of EPA by Delegations 8-22-A and 8-22-C (April 20, 1994), and redelegated to, among others, the Director of the Land Division of EPA Region 9 by Delegations R9-8-22-A (October 10, 2014) and R9-8-22-C (October y 10, 2014).

(c) Navy and DLA agree to undertake and complete all actions required by the terms and conditions of this AOC.

3. PARTIES BOUND

(a) This AOC shall apply to and be binding upon the Parties and their successors and assigns. Navy and DLA are jointly and severally liable under this AOC.

(b) Navy and DLA shall notify the Regulatory Agencies in writing as soon as the decision to transfer or sell any property covered by this AOC is known by Navy or DLA but no later than prior to the sale or transfer. In addition, Navy and DLA shall provide a copy of this AOC to any successor to the Site prior to the effective date of such change. No change in ownership or operation of any property covered by this AOC or in the status of Navy and DLA shall in any way alter, diminish, or otherwise affect Navy and DLA's obligations and responsibilities under this AOC, except by agreement of the Parties in accordance with Section 8 or as required by subsequently enacted legislation pertaining to transfer of the Facility.

(c) Navy and DLA shall provide a copy of the AOC, or a website address for accessing this AOC, to all of its supervisory personnel who work on actions related to this AOC and prime contractors or prime consultants retained to conduct or monitor any portion of work performed pursuant to this AOC within seven (7) days of the date that the last Party signs the AOC as described in Section 25 ("Effective Date") or date of such retention, whichever is later. Navy and DLA shall condition all contracts with the aforementioned on compliance with the terms and conditions of this AOC. Navy and DLA shall instruct all supervisory personnel who work on actions related to this AOC and prime contractors or prime consultants retained to conduct or monitor any portion of work to perform such work in accordance with the requirements of this AOC.

4. FINDINGS OF FACT

(a) CNRH is a division of Navy. CNRH is the command responsible for providing, maintaining, and improving shore infrastructure, service, support, and training to enable fleet operations; CNRH oversees all Navy supporting commands involved in the operation or maintenance of the Facility.

(b) DLA is a combat logistics support agency of the United States Department of Defense ("DoD") providing the military services with the full spectrum of logistics, acquisition, and technical services. As the DoD executive agent for bulk petroleum, DLA executes the integrated materiel management responsibility for bulk petroleum owned by the DoD and is

responsible for bulk petroleum supply management from source of supply to the point of customer acceptance, with emphasis on improving efficiency. In accordance with DoD policy, DLA plans, programs, budgets, and provides funding for the operation, maintenance and repair of the Facility.

(c) Navy and DLA are the operators of the Facility.

(d) The Facility is located near Pearl Harbor on the island of Oahu, State of Hawaii.

(e) 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 surrounded and supported by basalt bedrock.

(f) 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, as of the Effective Date of this AOC, two (2) of the twenty (20) Tanks are not currently in operation.

(g) The Facility was constructed and became operational in the 1940s. The Tanks and related components at the Facility are unique.

(h) Federal and State programs for the management of USTs were first published in the 1980s. In January 2000, the State of Hawaii promulgated rules requiring owners and operators of such facilities to report suspected or confirmed releases from USTs. EPA granted final approval for the State of Hawaii’s UST program on September 30, 2002, in lieu of Federal rules regarding USTs. On November 18, 2011, EPA proposed revisions to strengthen the 1988 Federal UST regulations including requirements for field-constructed USTs and new requirements for secondary containment and operator training. On April 16, 2012, the public comment period for the proposed regulations closed. Under the proposed rules, most provisions of the proposed regulations would become effective three years after the final rule is issued.

(i) 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”).

(j) As of the Effective Date of this AOC, Navy stores three types of fuels at the Facility: JP-5, JP-8, and diesel marine fuel.

(k) The Waimalu and Moanalua Aquifers (“Aquifer identification and classification for Oahu: Groundwater protection strategy for Hawaii,” February 1990), 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.

(l) 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.

(m) The Honolulu Board of Water Supply’s (“BWS”) Halawa Shaft, which is part of a public water system, is near the Facility.

(n) The BWS’s Moanalua Well, which is part of a public water system, is near the Facility.

(o) 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.

(p) In the early 2000s, Navy performed transverse cores beneath each tank and discovered evidence of staining beneath nineteen (19) of twenty (20) Tanks.

(q) 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.

(r) 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.

(s) The total amount released to the environment, both attributable to the January 2014 event and historical releases, is unknown.

(t) Following the January 2014 release, Navy increased the frequency of monitoring and performed additional monitoring of Navy Well 2254-01 and 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

confirmed compliance with federal and state Maximum Contaminant Levels for drinking water both before and after the January 2014 release.

(u) 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.

5. CONCLUSIONS OF LAW AND DETERMINATIONS

(a) Hawaii Conclusions of Law and Determinations:

(i) Navy and DLA are “persons” as defined in HRS §342L-1 [40 C.F.R. § 280.12].

(ii) Navy is the “owner” of the Facility as defined in HRS §342L-1 [40 C.F.R. § 280.12].

(iii) Navy and DLA are the “operators” of the Facility as defined in HRS §342L-1 [40 C.F.R. § 280.12].

(iv) The Waimalu and Moanalua Aquifers are “underground sources of drinking water” as that term is used in HRS chapter 340E and are “State Waters” as defined in HRS §342D-1.

(v) BWS’s Halawa Shaft and Moanalua Well are parts of a “public water system” as defined in HRS §340E-1 and are “State Waters” as defined in HRS §342D-1.

(vi) There have been “releases” of “regulated substances” into the environment from Tanks at the Facility, as those terms are defined by HRS §342L-1 [40 C.F.R. § 280.12].

(vii) There have been releases of “contaminants” into the environment from Tanks at the Facility, as that term is defined in HRS §340E-1.

(viii) There have been discharges of “wastes” and “water pollutants” as those terms are defined in HRS §342D-1.

(ix) Navy and DLA, as the owner and/or operator of the Facility are subject to requirements regarding response and remediation in HRS chapter 342L and Hawaii Administrative Rules (“HAR”) chapter 11-281 [40 C.F.R. § 280 Subpart E] and are subject to orders which may be necessary to protect the health of persons who are or may be users of a public water system as provided in HRS chapter 340E and the rules promulgated pursuant

thereto including, but not limited to, HAR §11-19 and 11-20, and are subject to administrative orders and civil actions which are necessary to address discharges to state waters as provided for in HRS chapter 342D. Additionally, the Facility, which is federally owned and operated, is subject to “all administrative orders and all civil and administrative penalties or fines, regardless of whether such penalties or fines are punitive or coercive in nature or are imposed for isolated, intermittent, or continuing violations in the same manner and to the same extent as any person is subject to such requirements,” as codified in 42 U.S.C. § 6991f.

(x) The actions Navy and DLA have agreed to perform in accordance with this AOC are necessary to address potential impacts to human health, safety and the environment, as envisioned by HRS §§ 340E-4, 342D-9, 342D-10, 342D-11, 342L-8, 342L-9 and 342L-52, due to historical, recent and potential future releases at the Facility.

(b) EPA Conclusions of Law and Determinations:

(i) Navy and DLA are "persons" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).

(ii) EPA has determined that any fuel released from the Facility would be a “solid waste” within the meaning of Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

(iii) EPA has determined that Navy and DLA have contributed to or are contributing to the handling, storage, treatment, transportation or disposal of solid waste at the Facility.

(iv) EPA has determined that Navy and DLA's handling, storage, treatment, transportation, or disposal of solid waste may present an imminent and substantial endangerment to health or the environment.

(v) The actions required by this AOC may be necessary to protect health and the environment.

(vi) Navy and DLA are departments, agencies or instrumentalities of the Executive Branch of the federal government, and as such, are persons subject to the requirements of Sections 6001 and 9007 of RCRA, 42 U.S.C. §§ 6961, 6991f.

6. WORK TO BE PERFORMED

(a) Based upon the administrative record for the Site and the Findings of Fact (Section 4) and Conclusions of Law and Determinations (Section 5) set forth above, and in

consideration of the promises set forth herein, it is hereby agreed to and ordered that Navy and DLA comply with all provisions of this AOC, including, the SOW, Attachment A, which is incorporated into and made an enforceable part of this AOC. The term “Work” shall mean all the activities and requirements, including but not limited to all deliverables, specified in the AOC and SOW. A deliverable is any report or other document listed under Section 9 of the SOW or otherwise expressly required to be submitted under this AOC.

(b) The Work undertaken pursuant to this AOC shall be conducted in accordance with all applicable EPA and DOH guidance, policies and procedures, and this AOC, and is subject to approval by the Regulatory Agencies.

(c) Navy and DLA shall undertake and complete all of the Work to the satisfaction of the Regulatory Agencies.

(d) Navy and DLA shall commence performing their obligations under this AOC upon its Effective Date.

(e) The DOH Project Coordinator shall be DOH’s designated representative for the Site. As of the Effective Date of this AOC, the DOH Projector Coordinator shall be:

Steven Y.K. Chang, P.E., Chief
Solid and Hazardous Waste Branch
Department of Health
919 Ala Moana Blvd., Room 212
Honolulu, Hawaii 96814
(808) 586-4226
Steven.Chang@doh.hawaii.gov

The EPA Project Coordinator shall be EPA’s designated representative for the Site. As of the Effective Date of this AOC, the EPA Project Coordinator shall be:

Bob Pallarino
U.S. EPA Region 9
Underground Storage Tank Program Office
75 Hawthorne Street (LND-4-3)
San Francisco, California 94105
(415) 947-4128
Pallarino.Bob@epa.gov

The Navy and DLA Project Coordinator shall be Navy and DLA’s

representative for the Site. As of the Effective Date of this AOC, the Navy and DLA Project Coordinator shall be:

Jimmy Miyamoto
Deputy Operations Officer
NAVFAC Hawaii
400 Marshall Road
JBPHH, HI 96860-3139
(808) 471-0196
james.miyamoto@navy.mil

Any of the Parties may change their Project Coordinators at any time. Any of the Parties making such change will provide the other Parties with written notice within fourteen (14) days of such a change.

(f) Unless otherwise provided in this AOC, all reports, correspondence, notices, or other submittals relating to or required under this AOC shall be in writing and shall be sent to the “Project Coordinators” at the addresses specified above. Unless otherwise specified in the SOW, all reports, correspondence, notices or other submittals related to or required under this AOC may be delivered via email to the addresses above, or if otherwise agreed to by the Parties, by U.S. Postal Service or private courier service to the address above. The Regulatory Agencies may require Navy and DLA to submit a follow-on paper copy of any submission. All correspondence shall include a reference to the “Red Hill Administrative Order on Consent.”

7. REGULATORY AGENCIES’ APPROVAL OF DELIVERABLES

(a) Deliverables required by this AOC shall be submitted to the Regulatory Agencies for approval or modification pursuant to Subparagraph (b). The Regulatory Agencies must receive all deliverables by the due date specified in this AOC or by schedules developed pursuant to this AOC.

(b) After review of any deliverable that is required pursuant to this AOC, the Regulatory Agencies will: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Navy and DLA modify the submission; or (e) any combination of the above. However, the Regulatory Agencies will not modify a submission without first providing Navy and DLA at least one notice of deficiency and an opportunity to cure within thirty (30) days, except where the Regulatory Agencies determine

that to do so would cause serious disruption to the Work or where the Regulatory Agencies have disapproved previous submission(s) due to material defects and the Regulatory Agencies determine that the deficiencies in the submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

(c) In the event of approval, approval upon conditions, or modification by the Regulatory Agencies, pursuant to Subparagraph (b), Navy and DLA shall proceed to take any action required by the deliverable, as approved or modified by the Regulatory Agencies subject only to Navy and DLA's right to invoke the Dispute Resolution procedures set forth in Section 14 (Dispute Resolution) with respect to the modifications or conditions made by the Regulatory Agencies. In the event that the Regulatory Agencies modify the submission to cure the deficiencies pursuant to Subparagraph (b) and the Regulatory Agencies determine the submission has a material defect, the Regulatory Agencies retain their right to seek stipulated penalties, as provided in Section 15 (Penalties).

(d) Upon receipt of a notice of disapproval, in whole or in part, Navy and DLA shall, within thirty (30) days or such longer time as specified by the Regulatory Agencies in such notice, correct the deficiencies with respect to any disapproved part and resubmit the deliverable for approval. Any stipulated penalties applicable to the submission, as provided in the stipulated penalty provisions of Section 15 (Penalties), shall be stayed during the thirty (30) day opportunity to cure period or other specified period. A written explanation will accompany any disapproval, in whole or in part, by the Regulatory Agencies, including the identification of a material defect.

(e) Notwithstanding the receipt of a notice of disapproval, Navy and DLA shall proceed, at the direction of the Regulatory Agencies, to take any action required by any unrelated non-deficient portion of the submission. Implementation of any unrelated non-deficient portion of a submission shall not relieve Navy and DLA of liability for stipulated penalties for the disapproved portion under Section 15 (Penalties).

(f) In the event that a resubmitted deliverable, or portion thereof, is disapproved by the Regulatory Agencies, the Regulatory Agencies may again require Navy and DLA to correct the deficiencies, in accordance with the preceding Paragraphs. The Regulatory Agencies also retain the right to modify or develop the plan, report or other item, consistent with Subparagraph

(b). Navy and DLA shall implement any action as required in a deliverable which has been modified or developed by the Regulatory Agencies, subject only to Navy and DLA's right to invoke the procedures set forth in Section 14 (Dispute Resolution).

(g) If upon resubmission, a deliverable is disapproved or modified by the Regulatory Agencies due to a material defect previously identified by the Regulatory Agencies in accordance with Subsection 7(d), Navy and DLA shall be deemed to have failed to submit such deliverable timely and adequately unless Navy and DLA invoke the dispute resolution procedures set forth in Section 14 (Dispute Resolution) and the Regulatory Agencies' action to disapprove or modify a deliverable is overturned pursuant to that Section. The provisions of Section 14 (Dispute Resolution) and Section 15 (Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If the Regulatory Agencies' disapproval or modification is upheld, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section 15 (Penalties).

(h) All deliverables required to be submitted to the Regulatory Agencies under this AOC, shall, upon approval or modification by the Regulatory Agencies, be incorporated into and made enforceable under this AOC. In the event the Regulatory Agencies approve or modify a portion of a deliverable required to be submitted to the Regulatory Agencies under this AOC, the approved or modified portions shall be enforceable under this AOC. Navy and DLA shall implement all deliverables in accordance with the schedule and provisions approved by the Regulatory Agencies.

8. MODIFICATION OF THE SOW AND THIS AOC AND ADDITIONAL WORK

(a) Modification of the Work in the SOW

(i) If at any time during the implementation of the SOW, Navy and DLA identify a need for a compliance date modification or modification of the Work in the SOW, Navy and DLA shall submit a memorandum documenting the need for the modification to the Project Coordinators of the Regulatory Agencies. The Project Coordinators of the Regulatory Agencies will determine if the modification is warranted and will provide written approval or disapproval. If disapproved, the Regulatory Agencies will provide a written explanation of the reason for the disapproval. Any approved, written modification of a compliance date or

modification of Work required by this AOC shall be incorporated by reference into this AOC.

(ii) In the event that during the performance of this AOC, Navy and/or DLA encounters any condition or situation that constitutes an emergency situation or may present an immediate threat to human health or the environment, Navy and DLA shall immediately take all appropriate actions to prevent and/or minimize such emergency or threat, and shall immediately notify the DOH Project Coordinator and the EPA Project Coordinator. Navy and DLA shall take such immediate and appropriate actions in consultation with the DOH Project Coordinator and the EPA Project Coordinator. Navy and DLA shall then submit to DOH and EPA written notification of such emergency or threat at the Site within twenty-four (24) hours of such discovery and, if further action is required, submit a plan to further mitigate the threat within seven (7) days of sending the written notification of the emergency. After approval or approval with modification of the plan by the Regulatory Agencies, Navy and DLA shall implement the plan as approved or modified and the plan shall be incorporated by reference into and made part of this AOC and be enforceable as such. In the event that Navy and DLA fail to take appropriate response action as required by this Paragraph, either or both of the Regulatory Agencies may take a response action consistent with their statutory and regulatory authorities and may require Navy and DLA to reimburse them for their response costs pursuant to those authorities.

(b) Modification of this AOC

(i) This AOC may be modified only by the mutual agreement of the Parties. Any agreed modifications shall be in writing; be signed by all the Parties; have as their effective date the date on which the last Party signs the modification; and be incorporated into and be enforceable under this AOC.

(ii) No informal advice, guidance, suggestion, or comment by the Regulatory Agencies regarding deliverables submitted by Navy and DLA shall relieve Navy and DLA of their obligation to obtain such formal approval as may be required by this AOC, and to comply with all requirements of this AOC unless it is modified as provided under this AOC. Any deliverables, required by this AOC are, upon approval by the Regulatory Agencies, incorporated into and enforceable under this AOC.

(iii) In the event future regulatory requirements for field-constructed USTs are determined by the Regulatory Agencies to conflict with the Work to be performed under this

AOC, such that Navy and DLA could not comply with both this AOC and the regulatory requirements, the Parties will make good faith efforts to promptly resolve such conflict.

(c) Additional Work. The Regulatory Agencies may determine, or Navy and DLA may propose, that certain tasks or activities are necessary in addition to or in lieu of the Work when such additional performance is necessary for protection of human health and the environment. The Regulatory Agencies may determine that Navy and DLA shall perform additional work and the Regulatory Agencies will specify, in writing, the basis for the determination that additional work is necessary. Within thirty (30) days after the receipt of such determination, Navy and DLA shall have the opportunity to meet or confer with the Regulatory Agencies to discuss any additional work. Upon meeting or conferring, the Parties shall agree on a schedule for submitting a work plan for additional work; Navy and DLA shall either invoke dispute resolution or submit the schedule for approval within thirty (30) days from Navy and DLA's meeting or conferring on the additional work, unless otherwise agreed to by the Parties. Upon approval of a work plan, Navy and DLA shall implement the work plan in accordance with the schedule and provisions contained therein. The work plan shall be incorporated by reference into and made a part of this AOC and be enforceable as such.

9. DOCUMENT CERTIFICATION

(a) Any deliverable specifically listed in the SOW and submitted by Navy and DLA pursuant to this AOC shall be certified by the Commander of Navy Region Hawaii or the Regional Engineer for CNRH or designee but no lower than the Deputy Regional Engineer. Certification of additional deliverables may be required, if specified as a requirement in an approved implementation plan.

(b) The certification required by Paragraph 9(a) above, shall be in the following form:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment for knowing violation.

Signature: _____

Name: _____

Title: _____

Date: _____

10. SAMPLING, ACCESS AND DOCUMENT AVAILABILITY

(a) Sampling and Analysis

(i) All results of sampling, testing, modeling or other data generated (including raw data, which shall be made available if requested) by Navy and DLA, or on Navy and DLA's behalf, during implementation of this AOC shall be submitted to the Regulatory Agencies within thirty (30) calendar days of Navy and DLA's receipt of the data. Data shall be provided in the same format that it was provided to Navy and DLA unless a different format is otherwise agreed to by the Parties. Upon request, the Regulatory Agencies will make available to Navy and DLA data generated by DOH or EPA for the purposes of oversight of the Work unless it is exempt from disclosure by any federal or state law or regulation. All sampling and analysis shall be subject to a quality assurance and control process as specified in the SOW.

(ii) Navy and DLA shall provide written notice to the Regulatory Agencies at least seven (7) calendar days prior to conducting field sampling, or as otherwise agreed to by the Parties. At the Regulatory Agencies' request, Navy and DLA shall allow split or duplicate samples to be taken by the Regulatory Agencies.

(b) Access to Areas Controlled by Navy and/or DLA

(i) EPA has the authority to enter the Site under federal environmental law and DOH has authority to enter the Site under state law.

(ii) Navy and DLA shall provide the Regulatory Agencies and/or their representatives with access to the Site at all reasonable times for the purposes consistent with the provisions of this AOC. Such access shall include, but not be limited to: inspecting records, logs, contracts, and other documents relevant to implementation of this Agreement; reviewing and monitoring the progress of Navy and DLA, their contractors, and lessees in carrying out the activities under this AOC; conducting tests that the Regulatory Agencies deem necessary;

assessing the need for planning additional response actions at the Site; and verifying data or information submitted to the Regulatory Agencies.

(iii) Navy and DLA shall honor all requests for access to the Site made by the Regulatory Agencies subject to the requirements in Subparagraph (v). Navy and DLA may require presentation of credentials showing the bearer's identification and that he/she is an employee or agent of the Regulatory Agencies, including contractors employed by either of the Regulatory Agencies. Navy and DLA's Project Coordinator or his/her designee shall provide briefing information, coordinate access and escort to restricted or controlled-access areas, arrange for base passes, and coordinate any other access requests that arise. Navy and DLA shall use their best efforts to ensure that conformance with the requirements of this Subsection do not delay access.

(iv) The rights granted in this Section to the Regulatory Agencies regarding access shall be subject to regulations and statutes, as may be necessary to protect national security information ("classified information") as defined in Executive Order 12958. Such requirement shall not be applied so as to unreasonably hinder the Regulatory Agencies from carrying out their responsibilities and authority pursuant to this AOC.

(v) The Facility is a controlled access area and subject to safety and security requirements. Other parts of the Site may be controlled or restricted. Navy and DLA shall provide an escort whenever the Regulatory Agencies require access to controlled or restricted areas for purposes consistent with the provisions of this AOC. The Regulatory Agencies shall provide reasonable notice to the Navy and DLA Project Coordinator, or his or her designee, to request any necessary escorts for such areas. Navy and DLA shall not require an escort to any area of the Site unless it is a restricted or controlled-access area. Upon request of the Regulatory Agencies, Navy and DLA shall promptly provide a written list of current restricted or controlled-access areas of the Site.

(vi) Upon a denial of any aspect of a request of access, Navy and DLA shall provide an immediate explanation of the reason for the denial, including reference to any applicable regulations, and upon request, a copy of such regulations. Within forty-eight (48) hours, Navy and DLA shall provide a written explanation for the denial. To the extent possible,

Navy and DLA shall expeditiously provide a recommendation for accommodating the requested access in an alternate manner.

(vii) Pursuant to this Section, any denial of access contrary to the terms of this AOC at reasonable times to any portion of the Site, where a request for access was made for the purposes of enforcing the requirements of federal or state law, or implementing or enforcing this AOC, shall be construed as a violation of the terms of this AOC subject to the penalty provisions outlined in Section 15 (Penalties) of this AOC.

(c) Access to Areas Not Controlled by Navy and/or DLA

Where action under this AOC is to be performed in areas owned by, or in possession of, someone other than Navy or DLA, Navy and DLA shall use their best efforts to obtain all necessary access agreements in a timely manner. Navy and DLA shall commence efforts to obtain such agreements within thirty (30) days of approval of any Work for which access is necessary. Any such access agreement shall provide for access by the Regulatory Agencies and their representatives to move freely in order to conduct actions that the Regulatory Agencies determine to be necessary. The access agreement shall specify that Navy and DLA are not the Regulatory Agencies' representative(s) with respect to any liabilities associated with activities to be performed. Navy and DLA shall provide DOH's Project Coordinator and EPA's Project Coordinator with copies of any access agreements. Navy and DLA shall immediately notify the Regulatory Agencies if after using Navy and DLA's best efforts, they are unable to obtain such agreements within the time required. Best efforts as used in this Paragraph shall include, at a minimum, a certified letter from Navy and DLA to the present owner of such property requesting access agreements to permit Navy and DLA, the Regulatory Agencies, and the Regulatory Agencies' authorized representatives to enter such property, and the offer of payment of reasonable sums of money in consideration of granting access. Navy and DLA shall, within ten (10) calendar days of receipt of a denial of access, submit in writing, a description of their efforts to obtain access. The Regulatory Agencies may, at their discretion, assist Navy and DLA in obtaining access. Where access on state owned property is needed, DOH will make best efforts to assist Navy and DLA with access.

(d) Document Availability

All data, information, and records created or maintained for purposes of implementation of this AOC, and all records relating to Facility operations and maintenance, or to site conditions, shall be made available to the Regulators upon request unless Navy or DLA assert a claim that such documents are legally privileged from disclosure and meets the burden of demonstrating to the Regulatory Agencies that such a privilege exists. Navy and DLA may assert a claim that certain documents or portions of documents are protected from public disclosure under federal or state law (e.g., documents exempt from disclosure under applicable laws such as FOIA, Procurement Integrity Act, Privacy Act, etc.). Navy and DLA shall clearly mark the material in which such a claim is asserted (e.g., documents shall be marked on each page and shall be reasonably segregated) and cite to the legal authority allowing withholding. If no such claim accompanies the information when it is submitted to the Regulatory Agencies, it may be made available to the public by EPA or DOH without further notice to Navy and DLA. Navy and DLA agree not to assert such claims with respect to any data related to Site conditions, including but not limited to, sampling, analytical, monitoring, hydrogeologic, scientific, chemical or engineering data or any other documents or information evidencing conditions at or around the Site.

(e) Nothing in this AOC shall be construed to limit the Regulatory Agencies' right of access, entry, inspection, and information gathering pursuant to applicable law.

11. COMPLIANCE WITH OTHER LAWS

Navy and DLA shall perform all actions required pursuant to this AOC in accordance with all applicable local, state, and federal laws and regulations. Navy and DLA shall use best efforts to obtain or cause their representatives to obtain all permits and approvals necessary under such laws and regulations in a timely manner so as not to delay the Work required by this AOC.

12. FUNDING OF THE WORK

(a) It is further agreed to and ordered that Navy and DLA shall timely seek sufficient funding through their budgetary processes to finance and perform all the Work. Navy and DLA recognize the requirements of this AOC as necessary actions subject to the provisions of Executive Order 12088 requiring request of sufficient funds in the agency budget. It is the

expectation of the Parties to this AOC that all obligations of Navy and DLA arising under this AOC will be fully funded.

(b) Any requirement for the payment or obligation of funds, including stipulated penalties, by Navy or DLA, established by the terms of this AOC may be subject to the availability of appropriated funds. No provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341.

(c) If Navy and DLA determine that there are insufficient funds to carry out the Work in accordance with the AOC, Navy and DLA shall notify the Regulatory Agencies within thirty (30) days thereafter and request a meeting to work with the Regulatory Agencies to explore cost-savings or re-scoping measures to off-set the shortfall. The meeting shall be held within thirty (30) days of the request for the meeting, unless otherwise agreed to by the Parties. If re-scoping or cost savings measures are not sufficient to offset the shortfall such that schedules developed pursuant to this AOC should be modified, then Navy and DLA shall submit a modified schedule to the Regulatory Agencies for approval within the time frame agreed to in the meeting. The time frame agreed to in the meeting shall be in writing, signed by the Parties and be enforceable under this AOC. If funds are not available in any year to fulfill Navy and DLA's obligations under this AOC and the Parties are unable to agree on cost-savings or re-scoping measures to offset the shortfall or a modified schedule, DOH and EPA reserve their respective rights to initiate any action against any person(s) or to take any response action which would be appropriate absent this AOC.

13. REIMBURSEMENT OF DOH COSTS

(a) Subject to the provisions of this Paragraph, Navy and DLA agree to pay reasonable service charges incurred by DOH with respect to the Work. Reasonable service charges shall mean reasonable and necessary costs above and beyond normal regulatory responsibilities (i.e., required overtime or contracted effort) that DOH incurs in monitoring Navy's and DLA's performance under this AOC to determine whether such performance is consistent with the requirements of this AOC, including costs incurred in reviewing plans, reports and other documents submitted pursuant to this AOC. Reasonable service charges incurred by DOH shall be limited to no more than fifty thousand dollars (\$50,000) per calendar year unless otherwise agreed in writing by Navy and DLA. DOH shall advise Navy and DLA

prior to accruing any costs for which it intends to seek reimbursement pursuant to this section and shall obtain concurrence that such costs are reasonable. Navy and DLA shall make good faith efforts to negotiate a separate cooperative agreement with DOH which will detail the modalities for payment of reasonable service charges incurred by DOH with respect to the Work. If Navy, DLA, and DOH cannot agree on the reasonableness of the proposed costs, they shall attempt to resolve any disputes under this Section amongst themselves. In the event that a separate cooperative agreement is developed, any dispute resolution related to this Paragraph shall be pursuant to that agreement and applicable regulation and shall not be subject to Section 14 (Dispute Resolution).

(b) DOH reserves the right to bring an action against Navy and DLA under any applicable law for recovery of all reasonable service charges incurred by DOH with respect to the Site that have not been reimbursed by Navy and DLA if Navy and DLA and DOH fail to enter into a separate cooperative agreement or make other arrangements for reimbursement of reasonable service charges incurred by DOH with respect to the Work.

14. DISPUTE RESOLUTION

(a) The Parties intend to work cooperatively to avoid disputes in the implementation of the AOC. The Parties shall make reasonable efforts to resolve disputes informally at the lowest level. The process for dispute resolution set forth in this Section shall be the exclusive remedy through which the Parties resolve any and all disputes arising from this AOC and the implementation and execution of the Work. At any point during the dispute resolution process, Navy and DLA may withdraw their dispute and commence or resume the previously disputed Work in accordance with direction from the Regulatory Agencies.

(b) A dispute resolution committee (“DRC”) shall serve as the initial forum for resolution of disputes for which agreement has not been reached through informal dispute resolution among the Parties. Each Party shall designate one individual and an alternate to serve on the DRC, and may change those designations at will, with written notice to be provided to the other Parties, but shall at all times have persons so designated and available to participate in the dispute resolution process as needed. The persons designated to serve on the DRC shall be employed at the senior management level (e.g., Senior Executive Service (SES) or equivalent) or be delegated the authority in writing to participate on the DRC by an SES or equivalent level

official, or higher, for the purposes of dispute resolution under this agreement.

(i) Within thirty (30) days after any action which leads to or generates a dispute, the disputing Party shall submit to the DRC a written statement of dispute setting forth the nature of the dispute, the disputing Party's position with respect to the dispute and the technical, legal and factual information the disputing Party is relying upon to support its position.

(ii) Prior to any Party's issuance of a written statement of dispute, the disputing Party shall engage the other Parties in informal dispute resolution among the Project Coordinators and/or their immediate supervisors. During this informal dispute resolution period, the Parties shall meet and/or confer as many times as are necessary to discuss and attempt resolution of the dispute.

(iii) Within twenty (20) calendar days of receipt by the DRC of the disputing Party's written request for formal dispute resolution, unless additional time is provided by the DRC, the other Parties may submit their own statements of position with respect to the dispute to the DRC for its consideration.

(iv) The DRC shall have forty-five (45) calendar days from the date it receives a timely written request from the disputing Party for formal dispute resolution to unanimously resolve the dispute and issue a written decision signed by the designee of each Party then serving on the DRC, except that such designees may agree unanimously to extend the period of time to reach decision if necessary. This decision may include any necessary findings and instructions, as appropriate, to proceed with Work interrupted or delayed by the dispute.

(c) In the event the DRC is unable to unanimously resolve the dispute within the forty-five (45) day period, the written statement of dispute shall be forwarded to the Senior Executive Committee (SEC) for resolution, within ten (10) days after the close of the forty-five (45) day period. EPA's representative on the SEC is the Regional Administrator of EPA Region 9. DOH's representative on the SEC is the Director of Health. Navy's representative on the SEC is the Commander Navy Installations Command. DLA's representative on the SEC is the Chief of Staff of DLA. The SEC members shall, as appropriate, confer, meet, and exert their best efforts to resolve the dispute and issue a unanimous written decision signed by all Parties. If unanimous resolution of the dispute is not reached within thirty (30) days of elevation to the SEC, the Regional Administrator of EPA Region 9 shall issue a written position on the dispute

within forty (40) days of elevation to the SEC. The Assistant Secretary of the Navy for Energy, Installations & Environment, or the Director of DLA, within thirty (30) days of the EPA's Regional Administrator's issuance of the EPA's position, may issue a written notice elevating the dispute to EPA's Assistant Administrator of the Office of Enforcement and Compliance Assurance (EPA Assistant Administrator) for resolution. In the event that Navy, DLA or DOH elects not to elevate the dispute to the EPA Assistant Administrator within the designated thirty (30) day escalation period, the other Parties shall be deemed to have agreed with the EPA's Regional Administrator's written position with respect to the dispute.

(d) Upon elevation of the dispute to the EPA Assistant Administrator pursuant to Paragraph 14(c) above, the EPA Assistant Administrator will review and resolve the dispute. Upon request, and prior to resolving the dispute, the EPA Assistant Administrator will meet and confer with the Assistant Secretary of the Navy for Energy, Installations & Environment, the Director of DLA, and the Governor to discuss the issue(s) under dispute. The EPA Assistant Administrator will resolve the dispute within thirty (30) days of receipt of the dispute, unless the Assistant Secretary of the Navy for Energy, Installations & Environment, the Director of DLA, or the Governor request a meeting with the EPA Assistant Administrator prior to resolving the dispute, in which case the dispute will be resolved within thirty (30) days of such meeting. Upon resolution, the EPA Assistant Administrator will provide the other Parties with a written final decision setting forth resolution of the dispute.

(e) The existence of a dispute and the Regulatory Agencies' consideration of matters placed in dispute shall not excuse, toll, or suspend any compliance obligation or deadline required pursuant to this AOC during the pendency of the dispute resolution process except as agreed by the Regulatory Agencies in writing pursuant to Section 8 of this AOC or determined by the Administrator or his or her designee. In the event that a dispute is resolved in favor of Navy and DLA pursuant to this Section, stipulated penalties incurred with respect to the specific subject of that dispute will not be due and owing.

(f) Within thirty (30) calendar days of receipt of any final decision and instructions with respect to any dispute resolved pursuant to the procedures specified in this Section, unless otherwise specified in the decision, Navy and DLA shall incorporate the final decision and

instructions into the appropriate plan, schedule or procedures and implement this AOC in accordance with such plan, schedule or procedures.

(g) Resolution of a dispute pursuant to this Section constitutes a final resolution of any dispute arising under this AOC. All Parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Section of the AOC.

15. PENALTIES

(a) In the event that Navy and/or DLA fails to comply with any term, condition or requirement of this AOC, EPA and/or DOH may assess and Navy and DLA shall be liable for stipulated penalties in the amounts set forth in this Section unless a Force Majeure event has occurred as defined in Section 17 (Force Majeure) and the Regulatory Agencies have approved the extension of a deadline as required by that Section. Compliance with this AOC by Navy and DLA shall include completion of any Work in accordance with this AOC and within the specified time schedules approved under this AOC. A stipulated penalty may be assessed in an amount not to exceed \$5,000 for the first week (or part thereof) and \$10,000 for each additional week (or part thereof) for which a failure set forth in this Subsection occurs.

(b) Stipulated penalties incurred pursuant to this Section shall begin to accrue on the day after complete performance is due or the day the violation occurs and shall continue to accrue until the violation is corrected to the satisfaction of the Regulatory Agencies.

(c) Upon determining that Navy and DLA have failed in a manner set forth in this Subsection, the EPA or the DOH will notify Navy and DLA. Any such notification shall be in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, Navy and DLA shall have thirty (30) days after receipt of the notice to invoke dispute resolution on the question of whether the failure did in fact occur and whether there is no mitigating reason for the failure. Where dispute resolution is invoked, no assessment of a stipulated penalty shall be final until the conclusion of dispute resolution procedures related to the assessment of the stipulated penalty. Notwithstanding any other provision of this Section, the Regulatory Agencies may, in their unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this AOC.

(d) No later than sixty (60) days after receipt of a written demand for payment from the Regulatory Agencies, unless the dispute resolution provisions of Section 14 (Dispute

Resolution) are invoked, Navy and DLA shall pay the penalty. If the stipulated penalties become payable by Navy and DLA, they shall pay one half (50%) of the total penalty amount by cashier's or certified check payable to the "State of Hawaii Director of Finance" for deposit into the Hawaii's Leaking Underground Storage Tank Fund [HRS § 342L-51] and delivered to the Director's Office, 1250 Punchbowl Street, Honolulu, Hawaii. They shall pay the other half (50%) of the total penalty amount by certified or cashier's check payable to the United States Treasury and delivered to the U.S. Environmental Protection Agency, Cincinnati Finance Center, Box 979077, St. Louis, MO, or other agreed-to method. All payments by Navy and DLA shall reference Navy and DLA's name and address, and the docket number for this action.

(e) This Section shall not affect Navy or DLA's ability to obtain an extension of a timetable, deadline, or schedule pursuant to Section 8 of this AOC.

(f) Nothing in this AOC shall be construed to render any officer or employee Navy or DLA personally liable for the payment of any stipulated penalty assessed pursuant to this Section.

16. ENFORCEABILITY

(a) The Parties agree to exhaust their rights under Section 14 (Dispute Resolution), prior to DOH exercising any rights to pursue a civil action and seek judicial review that it may have.

(b) Subject to the Dispute Resolution Provisions of Section 14 and the Regulatory Agencies' Covenants in Section 19, nothing in this AOC shall preclude the State of Hawaii from seeking to enforce the terms and conditions of this AOC as a final order of DOH against Navy and DLA in a civil action to collect penalties and/or enforce its provisions pursuant to HRS §§ 340E-4, 340E-8, 342D-9, 342D-10, 342D-11, 342L-8, 342L-9, 342L-12, and 342L-52, Section 7002 of RCRA, 42 U.S.C. § 6972, or in a civil action for breach of this AOC and from seeking any other relief as may be necessary to protect the public health, a source of drinking water and the environment. However, DOH will not seek to collect, in a judicial proceeding, civil penalties for a breach of this AOC if it or EPA has already collected such penalties under the penalty provisions of this AOC for the same matter, or if such penalties have been overturned through the dispute resolution process of Section 14.

(c) Failure to diligently conduct the Work may subject Navy and DLA to an action under Section 7002 of RCRA, 42 U.S.C. § 6972.

(d) Navy and DLA waive their opportunity to confer with the Administrator of EPA pursuant to 42 U.S.C. § 6961(b)(2) and any right to further review of the issuance of this AOC pursuant to any provisions of state and federal law.

(e) In any action to enforce the terms of this AOC, all Parties agree to be bound by the terms of the AOC and agree to not contest the validity of this AOC, its terms or conditions, or the procedures underlying or relating to them in any action brought by the Regulatory Agencies to enforce its terms.

17. FORCE MAJEURE

(a) Navy and DLA agree to perform all requirements under this AOC within the time limits established under this AOC, unless the performance is delayed by a force majeure. For purposes of this AOC, a force majeure is defined as any event arising from causes beyond the control of Navy and DLA, or Navy or DLA's contractors, that delays or prevents performance of any obligation under this AOC despite Navy and DLA's best efforts to fulfill the obligation. The requirement that Navy and DLA exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event: (1) as it is occurring, and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. Force majeure does not include financial inability to complete the Work, increased cost of performance, changes in Navy and DLA's business or economic circumstances, or inability to attain media cleanup standards.

(b) If any event occurs or has occurred that may delay the performance of any obligation under this AOC, whether or not caused by a force majeure event, Navy and DLA shall orally notify the Regulatory Agencies within forty-eight (48) hours of when Navy or DLA knew or should have known that the event might cause a delay. Such notice shall: (1) identify the event causing the delay, or anticipated to cause delay, and the anticipated duration of the delay; (2) provide Navy and DLA's rationale for attributing such delay to a force majeure event; (3) state the measures taken or to be taken to prevent or minimize the delay; (4) estimate the timetable for implementation of those measures; and (5) state whether, in the opinion of Navy and DLA, such

event may cause or contribute to an endangerment to public health or the environment. Navy and DLA shall undertake best efforts to avoid and minimize the delay. Failure to comply with the notice provision of this Paragraph and to undertake best efforts to avoid and minimize the delay shall waive any claim of force majeure by Navy and DLA. Navy and DLA shall be deemed to have notice of any circumstances of which their contractors had or should have had notice.

(c) If the Regulatory Agencies determine that a delay in performance or anticipated delay in fulfilling a requirement of this AOC is or was attributable to a force majeure, then the time period for performance of that requirement will be extended as deemed necessary by the Regulatory Agencies. If the Regulatory Agencies determine that the delay or anticipated delay has been or will be caused by a force majeure, then the Regulatory Agencies will notify Navy and DLA, in writing, of the length of the extension, if any, for performance of such obligations affected by the force majeure. Any such extensions shall not alter Navy and DLA's obligation to perform or complete other tasks required by this AOC which are not directly affected by the force majeure.

(d) If the Regulatory Agencies disagree with Navy and DLA's assertion of a force majeure, then Navy and DLA may elect to invoke the dispute resolution provision, and shall follow the procedures set forth in Section 14 (Dispute Resolution). In any such proceeding, Navy and DLA shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that Navy and DLA's best efforts were exercised to avoid and mitigate the effects of the delay, and that Navy and DLA complied with the requirements of this Section. If Navy and DLA satisfy this burden, then the Regulatory Agencies will extend the time for performance as the Regulatory Agencies determine is necessary.

18. RESERVATION OF RIGHTS

(a) Notwithstanding any other provisions of this AOC, the Regulatory Agencies retain their authority to take, direct, or order any and all actions necessary to protect public health, any source of drinking water or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste or constituents of such wastes, on, at, or from the Facility, including but not limited

to the right to bring enforcement actions under RCRA, the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), the Clean Water Act (“CWA”), the Safe Drinking Water Act (“SDWA”); HRS chapters 340E, 342D and 342L; and any other applicable statutes or regulations. However, unless required on an emergency basis, no such action shall be taken in relation to any activity within the scope of this AOC unless a Party has first made good faith efforts to address the issue through a modification to this AOC and, if necessary, through the Dispute Resolution process set forth in Section 14.

(b) The Regulatory Agencies reserve all of their statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to Navy and DLA's failure to comply with any of the requirements of this AOC.

(c) Navy and DLA reserve all of their statutory and regulatory rights and defenses both legal and equitable, including but not limited to rights and defenses against third parties. Nothing in this AOC shall be taken as an admission of fact or law in any dispute with a third party or in any dispute outside the context of enforcement of this AOC.

(d) This AOC is not intended to be nor shall it be construed to be a permit. Navy and DLA acknowledge and agree that EPA or DOH's review and approval of the Work does not constitute a warranty or representation that the Work will achieve the required cleanup or performance standards. Compliance by Navy and DLA with the terms of this AOC shall not relieve Navy and DLA of their obligations to comply with applicable local, state, or federal laws and regulations.

19. REGULATORY AGENCIES' COVENANTS

(a) Except as provided in Section 18 (Reservation of Rights), EPA covenants not to take administrative action against Navy or DLA pursuant to Section 7003 of RCRA, 42 U.S.C. § 6973, for the Work. EPA's covenant shall take effect upon the Effective Date of this AOC. EPA's covenant is conditioned upon the satisfactory performance by Navy and DLA of their obligations under this AOC. EPA's covenant extends only to Navy and DLA and does not extend to any other person.

(b) Except as provided in Section 18 (Reservation of Rights), DOH covenants not to take administrative enforcement action against Navy or DLA with respect to any Work on the

condition that the Work is consistent with Navy's and DLA's obligations under this AOC and/or that the Work has been satisfactorily completed and approved by the DOH.

20. OTHER CLAIMS

By issuance of this AOC, the Regulatory Agencies assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Navy and DLA. The Regulatory Agencies shall not be deemed a party to any contract, agreement or other arrangement entered into by Navy and DLA or its officers, directors, employees, agents, successors, assigns, heirs, trustees, receivers, contractors, or consultants in carrying out actions pursuant to this AOC.

21. RECORD RETENTION

(a) Navy and DLA shall preserve all records related to the Facility in accordance with the appropriate federal records retention schedule. In addition, Navy and DLA shall preserve all documents shared with the Regulatory Agencies relating to the Work performed under this AOC, monitoring data, and other raw data generated pursuant to this AOC, for at least ten (10) years following the termination of the AOC. Navy and DLA shall make such records available to DOH or EPA at their request.

(b) All substantive documents exchanged between the Parties relating to the Work performed under this AOC and all monitoring data related to the Facility shall be stored by Navy and DLA in a centralized location at the Site, or an alternative location mutually approved by the Project Coordinators to promote easy access by the Regulatory Agencies or their representatives.

22. PRESIDENTIAL EXEMPTION

The Parties recognize that the President may exempt a solid waste management facility from requirements of RCRA pursuant to 42 U.S.C. § 6961(a) or a UST from the requirements of RCRA pursuant to 42 U.S.C. § 6991f for a period of time not to exceed one (1) year after the President grants the exemption. This exemption may be renewed. Navy and DLA shall obtain access to and perform all actions required by this AOC within all areas inside those portions of the Site, which are not the subject of or subject to any such exemption by the President.

23. PUBLIC COMMENT

(a) Upon signature by Navy and DLA, the Regulatory Agencies shall provide public notice, a public meeting and a reasonable opportunity for public comment on the proposed

settlement. After consideration of any comments submitted during a public comment period of not less than thirty (30) days (which the Regulatory Agencies may extend), the Regulatory Agencies may sign this AOC, or withhold consent, or seek to amend all or part of this AOC if the Regulatory Agencies determine that comments received disclose facts or considerations which indicate that this AOC is inappropriate, improper, or inadequate.

(b) If a modification is necessary, the Regulatory Agencies shall transmit a modified copy of the AOC to Navy and DLA for review and signature, or further negotiations, as appropriate. If the modification is determined by the Regulatory Agencies to be significant, the process for public comment, described in Section 23(a), will repeat.

24. SEVERABILITY

If any provision of this AOC or the application of this AOC to any party or circumstances is held by any judicial authority to be invalid, the remainder of the AOC shall remain in full force and effect.

25. EFFECTIVE DATE

After this AOC is signed by each of the Parties and after the public comment period and review as described in Section 23 (Public Comment), this AOC shall become effective. The undersigned representatives certify that they are fully authorized to enter into the terms and conditions of this AOC and to bind the party they represent to this document.


26. TERMINATION AND SATISFACTION

The provisions of this AOC shall be deemed fully satisfied upon the Regulatory Agencies' execution of a written acknowledgement ("Acknowledgement") specifying that Navy and DLA have demonstrated to the satisfaction of the Regulatory Agencies that the terms and conditions of this AOC have been fully and satisfactorily completed. Prior to termination of this AOC, the Parties shall discuss whether an agreement, or additional regulation, is necessary to ensure continued protection of health and the environment. Termination of this AOC shall not terminate Navy and DLA's obligation to comply with Sections 10 (Sampling and Access) and 21 (Record Retention) of this AOC or the Regulatory Agencies' reservation of rights in Section 18. IN WITNESS WHEREOF, the Parties have duly executed this presents as of the day and year subscribed below.

Administrative Order on Consent
In the Matter of Red Hill Bulk Fuel Storage Facility
EPA Docket No: RCRA 7003-R9-2015-01
DOH Docket No: 15-UST-EA-01

Agreed this 27th day of MAY, 2015.

By:

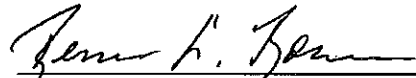


Richard L. Williams, Rear Admiral
Commander Navy Region Hawaii, U.S. Navy

Administrative Order on Consent
In the Matter of Red Hill Bulk Fuel Storage Facility
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DOH Docket No: 15-UST-EA-01

Agreed this 27th day of May, 2015.

By:



Renee L. Roman, Chief of Staff
Defense Logistics Agency

Administrative Order on Consent
In the Matter of Red Hill Bulk Fuel Storage Facility
EPA Docket No: RCRA 7003-R9-2015-01
DOH Docket No: 15-UST-EA-01

It is so ORDERED and Agreed this _____ day of _____, 2015.

By:

Keith Kawaoka, Deputy Director
Department of Health

APPROVED:
AS TO
FORM

Wade H. Hargrove III, Deputy Attorney General
Hawaii Department of Attorney General

Administrative Order on Consent
In the Matter of Red Hill Bulk Fuel Storage Facility
EPA Docket No: RCRA 7003-R9-2015-01
DOH Docket No: 15-UST-EA-01

It is so ORDERED and Agreed this _____ day of _____, 2015.

By:

Jeff Scott, Director, Land Division
Region 9, U.S. Environmental Protection Agency

Administrative Order on Consent
In the Matter of Red Hill Bulk Fuel Storage Facility
EPA Docket No: RCRA 7003-R9-2015-01
DOH Docket No: 15-UST-EA-01

Attachment A
Statement of Work

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Introduction

This Statement of Work (“SOW”) sets forth the tasks and requirements to be undertaken by the United States Department of Navy (“Navy”) and the Defense Logistics Agency (“DLA”), in compliance with the Administrative Order on Consent (“AOC”) in the Matter of Red Hill Bulk Fuel Storage Facility (“Facility”), located near Pearl Harbor, on the island of Oahu in the State of Hawaii. Unless otherwise specified, the underground storage tanks (“USTs”) covered by the AOC and this SOW are the twenty (20) field-constructed steel underground bulk fuel storage tanks (“Tanks”) at the Facility. The Tanks are constructed of steel, encased by an estimated minimum of 2.5 to 4 feet of concrete surrounded and supported by basalt bedrock. The primary objectives of the AOC and this SOW are 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. Navy, DLA, the Hawaii Department of Health (“DOH”) and the United States Environmental Protection Agency (“EPA”), collectively referred to as “the Parties” in the AOC and this SOW, agree that these objectives can best be accomplished by ensuring that the Tanks and other infrastructure at the Facility deploy the best available practicable technology (“BAPT”) (as defined in Section 3) to prevent fuel releases, developing a better understanding of the hydrogeology of the area surrounding the Facility, and conducting an assessment of the risk to the groundwater resources that may be posed by the Facility.

The major components of the Work under this SOW are summarized below.

(1) Navy and DLA will improve upon their existing tank inspection and repair process to ensure that the tank infrastructure prevents releases of fuel to the maximum extent practicable.

(2) Navy and DLA will undertake a comprehensive study to investigate the feasibility of upgrading the tank structures including, but not limited to, installing secondary containment. This study will evaluate several technologies, building on similar efforts conducted by Navy in 1998 and 2008. After completing the study, a technology or technologies will be approved by DOH and EPA (“the Regulatory Agencies”) and implemented by Navy and DLA. Implementation will occur in phases so that all Tanks in operation will deploy BAPT, as approved by the Regulatory Agencies, within twenty-two (22) years of the effective date of the AOC or as otherwise provided for in the AOC or this SOW.

(3) Navy and DLA will, as an interim measure, double the frequency of their tank tightness testing from biennial to annual and continue to continuously monitor the inventory of fuel in the Tanks. Navy and DLA shall conduct the next round of tank tightness testing no later than one year from the effective date of the AOC. As set forth below, Navy and DLA will also conduct a study to evaluate improvements to the tank tightness and release detection

technologies deployed at the Facility and, pending the outcome of the study and approval by the Regulatory Agencies, implement improvements.

(4) Navy and DLA will further develop models to better understand groundwater flow in the areas around the Facility and evaluate the fate and transport of contaminants in the subsurface around the Facility. As set forth below, based on the modeling effort, as approved by the Regulatory Agencies, Navy and DLA will develop and improve the existing groundwater monitoring network to the extent determined necessary.

(5) Navy and DLA will develop a risk/vulnerability assessment, subject to approval by the Regulatory Agencies, in an effort to further understand the potential for and potential impacts of fuel releases from the Facility on the island's drinking and groundwater supplies and to inform the Parties in development of subsequent BAPT decisions.

Overall Project Management

1.1 Subject Matter Experts Involvement

It is the intent of the Parties to seek the technical advice of subject matter experts, such as the Honolulu Board of Water Supply and the Hawaii Department of Land and Natural Resources, as needed, for scoping and review of key deliverables.

1.2 Community Involvement

The Parties shall update the public jointly based on public interest and at the request of one of the Parties. Navy and DLA shall submit a synopsis of each final report developed under the AOC, and this SOW, to the Regulatory Agencies who may make that synopsis available to the public.

1.3 Meetings

Meetings may consist of in-person, telephone, or video-conferences, the form of which will be based on budget constraints, schedules, and other considerations. Within ten (10) business days of a meeting, Navy and DLA shall circulate a summary of the meeting to the Regulatory Agencies for concurrence. The Parties may request additional meetings beyond the meetings outlined in this SOW, as needed. During each meeting, the Parties will identify applicable guidance, policies and procedures for the future Work to be performed that follows from such meeting.

1.4 Regulatory Agencies Written Responses

The Regulatory Agencies shall provide joint, written responses for all responses to Navy and DLA under Section 7 of the AOC (Regulatory Agencies' Approval of Deliverables).

1.5 Communications Between Parties

All Parties shall make best efforts to maintain effective and timely communications with the other Parties to facilitate implementation of the AOC and this SOW.

1.6 Quality Assurance

Navy and DLA shall include a discussion of quality assurance and quality control (“QA/QC”) procedures in each Scope of Work submitted to the Regulatory Agencies for approval. The QA/QC procedures shall be used to ensure that environmental or other data generated meets standards established by the Parties.

Navy and DLA shall use laboratories that have a documented quality system that complies with the “Uniform Federal Policy for Quality Assurance Project Plans” (Intergovernmental Data Quality Task Force, March 2005), and the “EPA Requirements for Quality Management Plans for Environmental Data Operations (QA/R-2) (EPA/240/B-01/002, March 2001),” or equivalent documentation as determined by EPA.

1.7 Definitions

Unless otherwise specified, the terms used in this document shall have the meaning defined in the Resource Conservation and Recovery Act (42 U.S.C. §6901 *et seq.*) and 40 Code of Federal Regulations Part 280 - *Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks*.

2. Tank Inspection, Repair, and Maintenance

The purpose of the deliverables to be developed and the work to be performed under this Section is to identify and evaluate tank inspection, repair, and maintenance (“TIRM”) procedures to ensure the continued integrity of the Tanks at the Facility and to develop and implement improvements to these procedures to prevent releases to the environment.

2.1 Scoping Meeting(s) for TIRM Procedures Report

Within thirty (30) days from the Effective Date of the AOC, Navy and DLA shall schedule and hold an initial Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting is to detail the contents of the TIRM Procedures Report. During the meeting, criteria for decision making will be discussed, and a decision will be made as to whether additional Scoping Meetings are needed.

2.2 TIRM Procedures Report

Within 120 days from the final Scoping Meeting, Navy and DLA shall submit a TIRM Procedures Report to the Regulatory Agencies. The TIRM Procedures Report shall describe the current procedures and evaluate options for improvements to the procedures.

At a minimum, the TIRM Procedures Report will identify and evaluate the following:

- a. Current TIRM procedures;
- b. Lessons learned from Tank 5 and related modifications to current procedures;
- c. Quality Control and Assurance of TIRM;
- d. Options for improving the TIRM procedures; and

- e. Schedule/frequency of modified American Petroleum Institute (“API”) 653 tank inspections, repairs, and maintenance.

2.3 TIRM Procedures Decision Meeting

Within sixty (60) days from the receipt by the Regulatory Agencies of the TIRM Procedures Report, Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to outline a plan for implementing improved TIRM procedures and propose a schedule for TIRM at the Facility. The Regulatory Agencies will not make final decisions on the TIRM procedures until the TIRM Procedures Decision Document is submitted under Section 2.4.

2.4 TIRM Procedures Decision Document and Implementation

Within sixty (60) days from the Decision Meeting, Navy and DLA shall submit a TIRM Procedures Decision Document to the Regulatory Agencies for approval. The TIRM Procedures Decision Document shall explain the procedures to be used, and set forth a schedule of implementation for TIRM procedures. Once approved by the Regulatory Agencies, Navy and DLA shall implement the TIRM Procedures Decision Document in accordance with the schedule and shall adhere to it unless modified under Sections 3.5 and 3.7.

3. Tank Upgrade Alternatives

The purpose of the deliverables to be developed and work to be performed under this Section is to identify and evaluate the various tank upgrade alternatives (“TUA”) and then select and implement the BAPT and TIRM procedures that can be applied to the in-service Tanks at the Facility to prevent releases into the environment.

As used in this SOW, BAPT shall mean the release prevention methods, equipment, repair, maintenance, new construction, and procedures, or any combination thereof, that offers the best available protection to the environment and that is feasible and cost-effective for the Tanks at the Facility. The selection and approval of BAPT shall be based on, but not be limited to, consideration of the following factors: (1) the risks and benefits of the particular technology; (2) the capabilities, feasibility, and requirements of the technology and facilities involved; (3) the anticipated operational life of the technology; and (4) the cost of implementing and maintaining the technology. Reliance on any one of these factors to the exclusion of other factors is inappropriate.

3.1 Scoping Meeting(s) for TUA Report

Within thirty (30) days from the Effective Date of the AOC, Navy and DLA shall schedule and hold an initial Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting will be to detail the contents of the Scope of Work for the TUA Report. During the meeting, criteria for decision making will be discussed, and a decision will be made as to whether additional Scoping Meetings are needed.

3.2 TUA Scope of Work

Within ninety (90) days from the final Scoping Meeting, Navy and DLA shall submit the TUA Scope of Work to the Regulatory Agencies for approval.

3.3 TUA Report

Within twelve (12) months from the Regulatory Agencies' approval of the Scope of Work, Navy and DLA shall submit a TUA Report to the Regulatory Agencies for approval. The purpose of the TUA Report is to identify and evaluate the various tank upgrade alternatives that can be applied to the Tanks at the Facility.

The TUA Report shall evaluate the following:

- a. Current tank upgrade procedures;
- b. Secondary containment alternatives;
- c. Coatings;
- d. Liners/Bladders;
- e. Associated release detection systems; and
- f. Any other alternatives deemed promising.

3.4 TUA Decision Meeting

Within sixty (60) days from the Regulatory Agencies' approval of the TUA Report, Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to discuss BAPT, the TIRM procedures, and subsequent actions for maintaining, repairing, and upgrading the Tanks at the Facility. Any proposed pilot program may also be discussed. The Regulatory Agencies will not make final decisions on the TUA until the TUA Decision Document is submitted under Section 3.5.

3.5 TUA Decision Document and Implementation

Within sixty (60) days from the Decision Meeting, Navy and DLA shall submit a TUA Decision Document to the Regulatory Agencies for approval that identifies the BAPT and the manner in which BAPT will be implemented in all in-service Tanks used to store fuel at the Facility. The TUA Decision Document shall define and specify the: (1) overall operational design of BAPT; (2) technology to be applied; (3) procedural aspects to be implemented; (4) plan and schedule for implementation of BAPT setting forth the order and schedule that Tanks shall receive BAPT, including a schedule for the start of each tank's budget planning cycle; and (5) performance criteria for successful application of BAPT. The TUA Decision Document shall either incorporate the TIRM Procedures Decision Document approved by the Regulatory Agencies in Section 2 above, or, consistent with the BAPT identified, incorporate a modified TIRM Procedures Decision Document.

Once approved by the Regulatory Agencies, Navy and DLA shall implement the TUA Decision Document for all in-service Tanks in accordance with the approved schedule. The TUA Decision Document shall be revised as necessary to incorporate changes to BAPT and its plan

and schedule for implementation, as well as any modifications to the TIRM Procedures Decision Document that may occur under Section 3.7. Tanks that have already begun their budget planning cycle for a previously approved BAPT, but have not completed installation of that BAPT, shall continue with installation of the previously approved BAPT unless all parties agree to a revised schedule for installing the new BAPT on those Tanks.

Tanks to which BAPT has not been successfully applied in accordance with a TUA Decision Document shall be taken out of use, temporarily closed, and emptied of all regulated substances no later than twenty-two (22) years from the Effective Date of this AOC unless an extension of time to implement BAPT has been granted pursuant to this Section. Navy and DLA shall make good faith efforts to meet this twenty-two (22) year deadline. The Regulatory Agencies may grant an extension, or series of extensions, of the twenty-two (22) year deadline, totaling no more than five (5) years, to allow additional time to apply BAPT during which time Navy and DLA may continue to store regulated substances in Tanks to which BAPT has not yet been applied. Upon the expiration of the twenty-two (22) year deadline and any extension(s) granted pursuant to this section, all Tanks to which BAPT has not been successfully applied shall be taken out of use, temporarily closed, and emptied of all regulated substances or permanently closed pursuant to applicable regulations or as approved by the Regulatory Agencies. The provisions of the AOC shall not be deemed by the Regulatory Agencies to have been fully satisfied until Navy and DLA have successfully applied BAPT to all Tanks which have not been permanently closed pursuant to applicable regulation or as approved by the Regulatory Agencies.

3.6 Pilot Programs

At any time, Navy and DLA may propose pilot programs to evaluate technologies and use data and conclusions drawn from such pilot programs in the development and evaluation of TUA. A pilot program may only be deployed in a Tank with approval from the Regulatory Agencies.

Prior to the installation of a proposed pilot program, Navy and DLA shall submit a Pilot Program Decision Document to the Regulatory Agencies for approval. The Pilot Program Decision Document can be combined as part of the TUA Decision Document in Section 3.5, if appropriate. The Pilot Program Decision Document shall define and specify: (1) the overall operational design of the pilot program; (2) the technology to be applied; (3) the procedural aspects to be implemented; (4) the Tank(s) to which the pilot program will be introduced; (5) the performance criteria and method of evaluating the success of the pilot program; and (6) a plan for terminating the pilot program. Any proposed pilot program shall at least be designed to provide environmental protection substantially equivalent to that of the currently approved BAPT at the time of the pilot program approval.

A pilot program, once approved by the Regulatory Agencies, if successfully installed and performing as expected, may continue to be used in a tank in accordance with the Pilot Program Decision Document. At the conclusion of the pilot program, or sooner if the operational

performance measures suggest that the pilot program is at least providing environmental protection substantially equivalent to the BAPT that was current at the time of the pilot program approval, Navy and DLA shall submit a TUA Re-Evaluation Report in accordance with Section 3.7 proposing either that the pilot program be approved by the Regulatory Agencies as BAPT for the piloted tank(s) only, or as BAPT for all in-service Tanks that have not received BAPT. If the Regulatory Agencies determine that the pilot program has met its performance measures as defined in the Pilot Program Decision Document, the Regulatory Agencies will approve the piloted tank(s) as having received BAPT.

3.7 TUA Re-evaluation

At least once every five (5) years from the approval of the initial TUA Decision Document, Navy and DLA shall complete a re-evaluation of new technologies to determine if either BAPT or the TIRM procedures, or both, should be modified. Navy and DLA shall propose a scope and process (i.e., TUA Re-evaluation Scope of Work) to the Regulatory Agencies for approval for each re-evaluation period no later than one (1) year prior to the expiration of that five (5) year interval between re-evaluation periods.

Navy and DLA shall submit to the Regulatory Agencies a TUA Re-evaluation Report for approval prior to the expiration of that five (5) year interval between re-evaluation periods. The TUA Re-evaluation Report shall identify appropriate tank upgrade alternatives and recommendations, including modifications, if any, to BAPT or the TIRM procedures, or both. Within sixty (60) days of the approval of any TUA Re-evaluation Report by the Regulatory Agencies, Navy and DLA shall hold a TUA Re-evaluation Decision Meeting to be attended by the Parties to discuss the alternatives and recommendations contained in the TUA Re-evaluation Report. Within sixty (60) days of the TUA Re-evaluation Report Decision Meeting, the Navy and DLA shall submit to the Regulatory Agencies for approval, any modified TUA Decision Document or modified TIRM Procedures Decision Document, or both. After approval by the Regulatory Agencies, Navy and DLA shall implement the modified TUA Decision Document, or the modified TIRM Procedures Decision Document, or both, in accordance with the approved schedule.

Navy and DLA may determine that military construction (“MILCON”) funding is required in order to implement the new BAPT identified in a modified TUA Decision Document. Such a determination shall be made consistent with federal law, policy, and regulation (see, e.g., 10 U.S.C. §§ 2801 – 2805; OPNAVINST 11010.20H), and if so made, Navy and DLA may upgrade up to four (4) Tanks using the most recent previously-approved BAPT under the following circumstances: (1) Navy and DLA have started the MILCON planning process, and are continuing to use best efforts to obtain funds for the new BAPT, but funds have not yet been authorized and appropriated by Congress; and (2) Navy and DLA have issued a solicitation (“Request for Proposals”) for the most recent previously-approved BAPT no later than five (5) years after the approval of the most recent modified TUA Decision Document. Thereafter, if MILCON funding becomes available for the new BAPT prior to award of a contract for

implementation of the most recent previously-approved BAPT under this paragraph, Navy and DLA shall, within ninety (90) days after the MILCON appropriation becomes law, submit to the Regulatory Agencies for approval a proposal to either: (1) continue with the implementation of the most recent previously-approved BAPT; or (2) implement the new BAPT, along with a request for an appropriate extension of time as provided in Section 3.5. Navy and DLA's efforts to start the MILCON planning process shall be demonstrated to the Regulatory Agencies by providing a copy of an appropriate two (2)-page draft Military Construction Project Data form ("DD Form 1391") or its equivalent no later than one (1) year after approval by the Regulatory Agencies of the modified TUA Decision Document. Navy and DLA shall use their best efforts to install the new BAPT in any Tanks that have not already received BAPT as soon as reasonably practicable.

4. Release Detection / Tank Tightness Testing

The purpose of the deliverables to be developed and work to be performed under this Section is to document the current release detection system and tank tightness testing procedures used at the Facility, evaluate these procedures, and implement any approved modifications.

4.1 Tank Tightness Testing Frequency

Until the approval of the New Release Detection Alternatives Decision Document as described in Sections 4.6 and 4.8 below, Navy and DLA shall increase their tank tightness testing from a biennial test to an annual test no later than one year from the effective date of the AOC, continue to use an inventory control monitoring system, and conduct vapor monitoring for all in-service Tanks as per the DOH-approved "Red Hill Bulk Fuel Storage Facility, Final Groundwater Protection Plan" (Dec 2009), or DOH-approved successor plan.

4.2 Outline of Current Fuel Release Monitoring Systems Report

Within thirty (30) days from the Effective Date of the AOC, Navy and DLA shall submit a document outlining the contents of the pending Current Fuel Release Monitoring Systems Report ("Outline of Current Fuel Release Monitoring Systems Report") to the Regulatory Agencies for approval.

4.3 Current Fuel Release Monitoring Systems Report

Within sixty (60) days from the Regulatory Agencies' approval of the Outline of Current Fuel Release Monitoring Systems Report, Navy and DLA shall submit a Current Fuel Release Monitoring Systems Report to the Regulatory Agencies for approval.

At a minimum, the Report shall include:

- a. Recordkeeping procedures;
- b. Dynamic re-filling procedures for tank re-commissioning;
- c. Dynamic filling procedures for daily operations;
- d. Static and dynamic release detection systems;
- e. Release detection sensitivity; and

- f. The previously completed 2008 Market Survey of Leak Detection Systems for the Red Hill Fuel Storage Facility, Fleet Industrial Center, Pearl Harbor, and the 2014 Addendum I to the 2008 Market Survey.

4.4 Scoping Meeting(s) for New Release Detection Alternatives

Within sixty (60) days from the Regulatory Agencies' approval of the Current Fuel Release Monitoring Systems Report, Navy and DLA shall schedule and hold an initial Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting is to detail the contents of the Scope of Work for the study to evaluate possible new or improved release detection alternatives. During the meeting, criteria for decision making will be discussed, and a decision will be made as to whether additional Scoping Meetings are needed.

4.5 New Release Detection Alternatives Scope of Work

Within ninety (90) days from the Final Scoping Meeting, Navy and DLA shall submit the New Release Detection Alternatives Scope of Work to the Regulatory Agencies for approval.

4.6 New Release Detection Alternatives Report

Within twelve (12) months from approval of the New Release Detection Alternatives Scope of Work, Navy and DLA shall submit a New Release Detection Alternatives Report to the Regulatory Agencies for approval.

The New Release Detection Alternatives Report shall include:

- a. A description of existing practices;
- b. Static and dynamic release detection system alternatives;
- c. Tank tightness alternatives;
- d. Comparison of the effectiveness of existing and alternative technologies; and
- e. A decision matrix.

4.7 New Release Detection Alternatives Decision Meeting

Within sixty (60) days from the Regulatory Agencies' approval of the New Release Detection Alternatives Report, Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to determine subsequent actions for implementing the new release detection alternatives as appropriate. The Regulatory Agencies will not make final decisions on the New Release Detection Alternatives until the New Release Detection Alternatives Decision Document is submitted under Section 4.8.

4.8 New Release Detection Alternatives Decision Document and Implementation

Within sixty (60) days after the Decision Meeting, Navy and DLA shall submit a Release Detection Alternatives Decision Document, including an implementation plan and schedule, to the Regulatory Agencies for approval. Once approved by the Regulatory Agencies, Navy and DLA shall implement the Release Alternatives Decision Document in accordance with the approved schedule.

5. Corrosion and Metal Fatigue Practices

The purpose of the deliverables to be developed and work to be performed under this Section is to evaluate the possibility and extent of corrosion and metal fatigue as well as practices to control corrosion and metal fatigue at the Facility. Based on this evaluation, procedures under Sections 2 or 3 of this SOW may be modified to improve control of corrosion and metal fatigue.

Navy and DLA shall maintain records of and continue efforts to complete internal cleaning and inspection of the aboveground pipelines in the tunnels within the Facility.

5.1 Outline of Corrosion and Metal Fatigue Practices Report

Within thirty (30) days of the Effective Date of the AOC, Navy and DLA shall submit an outline detailing the contents of the pending Corrosion and Metal Fatigue Practices Report (“Outline of Corrosion and Metal Fatigue Practices Report”) to the Regulatory Agencies for approval.

5.2 Corrosion and Metal Fatigue Practices Report

Within sixty (60) days from approval of the Outline of Corrosion and Metal Fatigue Practices Report, Navy and DLA shall submit a Corrosion and Metal Fatigue Practices Report to the Regulatory Agencies for approval. The Corrosion and Metal Fatigue Practices Report shall include, among other things, an explanation of the current practices for assessing the condition of the Tanks and associated fuel containment infrastructure, including details on the non-destructive testing procedures. Additionally, the report will describe any recordkeeping relating to corrosion and metal fatigue practices at the Facility.

5.3 Destructive Testing

The purpose of the deliverables to be developed and work to be performed under this Section is to verify the findings of the Corrosion and Metal Fatigue Practices Report through the use of destructive testing on at least one tank at the Facility.

5.3.1 Scoping Meeting(s) for Destructive Testing

Within ninety (90) days from the Regulatory Agencies’ approval of the Corrosion and Metal Fatigue Practices Report, Navy and DLA shall schedule and hold an initial Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting is to detail the contents of the Destructive Testing Scope of Work, and a decision will be made as to whether additional Scoping Meetings are needed.

5.3.2 Destructive Testing Scope of Work

Within ninety (90) days from the final Destructive Testing Scoping Meeting, Navy and DLA shall submit a Destructive Testing Scope of Work, including a plan for implementation and a proposed schedule, to the Regulatory Agencies for approval. The Scope of Work shall detail

planned destructive testing to be conducted on at least one (1) tank at the Facility. Once approved by the Regulatory Agencies, Navy and DLA shall implement the Scope of Work in accordance with the approved schedule.

5.3.3 Destructive Testing Results Report

Within twenty-four (24) months from the Regulatory Agencies' approval of the Destructive Testing Scope of Work, Navy and DLA shall submit the Destructive Testing Results Report to the Regulatory Agencies for approval.

5.4 Decision on Need for and Scope of Modified Corrosion and Metal Fatigue Practices

If the Parties determine that the results of the previous deliverables in this Section indicate the need for evaluation and implementation of potential changes in practices to control corrosion or metal fatigue, Navy and DLA shall, within sixty (60) days from the Regulatory Agencies' approval of the Destructive Testing Results Report, schedule and hold a Scoping Meeting to be attended by the Parties for the purpose of developing appropriate modifications to the scopes of work and timelines in Section 2 and/or Section 3. Additional scoping meetings shall be conducted, and deliverables shall be modified or added using appropriate procedures in Section 2 and/or Section 3, as determined necessary by the Parties, to address any needs for further evaluation, development, or implementation of practices to control corrosion or metal fatigue. Once approved by the Regulatory Agencies, Navy and DLA shall implement the approved modifications in accordance with the approved schedule.

6. Investigation and Remediation of Releases

The purpose of the deliverables to be developed and the work to be performed under this Section is to determine the feasibility of alternatives for investigating and remediating releases from the Facility.

The deliverables shall include:

- a. The response to the January 2014 release from Tank #5; and
- b. An evaluation and discussion of potential remediation methods for the January 2014 Tank #5 release and any future releases

6.1 Scoping Meeting(s) for Investigation and Remediation of Releases

Within thirty (30) days from the Effective Date of the AOC, Navy and DLA shall schedule and hold an initial Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting is to detail the contents of the Investigation and Remediation Releases Scope of Work. During the meeting, the criteria for decision making will be discussed, and a decision will be made as to whether additional Scoping Meetings are needed.

6.2 Investigation and Remediation of Releases Scope of Work

Within sixty (60) days of the final Scoping Meeting, Navy and DLA shall submit the Investigation and Remediation of Releases Scope of Work to the Regulatory Agencies for approval.

6.3 Investigation and Remediation of Releases Report

Within twenty-four (24) months from the Regulatory Agencies' approval of the Investigation and Remediation of Releases Scope of Work, Navy and DLA shall submit the Investigation and Remediation Releases Report to the Regulatory Agencies for approval.

6.4 Investigation and Remediation of Releases Decision Meeting

Within sixty (60) days from the Regulatory Agencies' approval of the Investigation and Remediation of Releases Report, Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to evaluate the feasibility to investigate and remediate potential releases from the Facility to the maximum extent practicable. The Regulatory Agencies will not make final decisions on the Investigation and Remediation of Releases until the Investigation and Remediation Releases Decision Document is submitted under Section 6.5.

6.5 Investigation and Remediation of Releases Decision Document and Implementation

Within sixty (60) days from the Decision Meeting, Navy and DLA shall submit a Decision Document for the Investigation and Remediation of Releases, including a proposed plan and schedule for implementation, to the Regulatory Agencies. Once approved by the Regulatory Agencies, Navy shall implement the Investigation and Remediation of Releases Decision Document in accordance with the approved schedule.

7. Groundwater Protection and Evaluation

The purpose of the deliverables to be developed and work to be performed under this Section is to monitor and characterize the flow of groundwater around the Facility. Navy and DLA shall update the existing Groundwater Protection Plan to include response procedures and trigger points in the event that contamination from the Facility shows movement toward any drinking water well. The collective work done in this Section shall be used to inform subsequent changes to the Groundwater Protection Plan. The deliverables and work to be performed under this Section may include the installation of additional monitoring wells as needed.

7.1 Groundwater Flow Model Report

The purpose of this deliverable is to refine the existing groundwater flow model and improve the understanding of the direction and rate of groundwater flow within the aquifers around the Facility.

7.1.1 Scoping Meeting(s) for Groundwater Flow Model Report

Within thirty (30) days from the Effective Date of the AOC, Navy and DLA shall schedule and hold an initial Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting is to detail the contents of the draft Scope of Work for the Groundwater Flow Model Report, and a decision will be made as to whether additional Scoping Meetings are needed.

7.1.2 Groundwater Flow Model Report Scope of Work

Within ninety (90) days from the final Scoping Meeting, Navy and DLA shall submit the Groundwater Flow Model Scope of Work to the Regulatory Agencies for approval. The Groundwater Flow Model Scope of Work shall consider interim deliverables to refine the groundwater flow modeling and related data requirements prior to completion of the Groundwater Flow Model Report. At a minimum, progress reports shall be provided to the Regulatory Agencies every four (4) months after approval of the Groundwater Flow Model Report Scope of Work.

7.1.3 Groundwater Flow Model Report

Within twenty-four (24) months from the approval of the Groundwater Flow Model Report Scope of Work, Navy and DLA shall submit a Groundwater Flow Model Report to the Regulatory Agencies for approval.

7.2 Contaminant Fate and Transport Model Report

The purpose of the Contaminant Fate and Transport Model Report is to utilize the Groundwater Flow Model to improve the understanding of the potential fate and transport, degradation, and transformation of contaminants that have been and could be released from the Facility.

7.2.1 Scoping Meeting(s) for Contaminant Fate and Transport Model Report

Within thirty (30) days from the Effective Date of the AOC, Navy and DLA shall schedule and hold an initial Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting is to detail the contents of the draft Scope of Work for the Contaminant Fate and Transport Model, and a decision will be made as to whether additional Scoping Meetings are needed.

7.2.2 Contaminant Fate and Transport Model Report Scope of Work

Within ninety (90) days from the final Scoping Meeting, Navy and DLA shall submit the Contaminant Fate and Transport Model Scope of Work to the Regulatory Agencies for approval.

7.2.3 Contaminant Fate and Transport Model Report

Within one-hundred and eighty (180) days from the Regulatory Agencies' approval of the Groundwater Flow Model Report, Navy and DLA shall submit a Contaminant Fate and Transport Model Report to the Regulatory Agencies for approval.

7.3 Groundwater Monitoring Well Network

The primary purpose of this deliverable is to evaluate the number and placement of groundwater monitoring wells required to adequately identify possible contaminant migration. The secondary purpose of this deliverable is to obtain additional data for the Groundwater Flow Model and Contaminant Fate and Transport Model Report.

7.3.1 Scoping Meeting for Groundwater Monitoring Well Network

Within thirty (30) days from the Effective Date of the AOC, Navy and DLA shall schedule and hold an initial Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting is to detail the contents of the draft Scope of Work for the Groundwater Monitoring Well Network. During the Scoping Meeting, the criteria for decision making will be discussed, and a decision will be made as to whether additional Scoping Meetings are needed.

7.3.2 Groundwater Monitoring Well Network Scope of Work

Within ninety (90) days from the final Scoping Meeting, Navy and DLA shall submit the Groundwater Monitoring Well Network Scope of Work to the Regulatory Agencies for approval. The Groundwater Monitoring Well Network Scope of Work shall consider whether interim deliverables for developing a groundwater monitoring well network are needed for the development of the groundwater flow modeling and related data requirements.

7.3.3 Groundwater Monitoring Well Network Report

Within twelve (12) months from the Regulatory Agencies' approval of the Groundwater Flow Model Report, Navy and DLA shall submit a Groundwater Monitoring Well Network Report. This report shall include a recommendation of the number and location of groundwater monitoring wells, including those already installed and potential new wells, to the Regulatory Agencies for approval.

7.3.4 Groundwater Monitoring Well Network Decision Meeting

Within sixty (60) days from the Regulatory Agencies' approval of the Groundwater Monitoring Well Network Report, Navy and DLA shall schedule and hold a Decision Meeting to be attended by the Parties. The purpose of the Decision Meeting is to evaluate subsequent actions for implementing the Groundwater Monitoring Well Network. The Regulatory Agencies will not make final decisions on the Groundwater Monitoring Well Network until the Groundwater Monitoring Well Network Decision Document is submitted under Section 7.3.5.

7.3.5 Groundwater Monitoring Well Network Decision Document and Implementation

Within sixty (60) days from the Decision Meeting, Navy and DLA shall submit a Decision Document for the Groundwater Modeling Well Network, including a proposed implementation plan and schedule, to the Regulatory Agencies for approval. Once approved by the Regulatory Agencies, Navy shall implement the Decision Document for the Groundwater Modeling Well Network in accordance with the approved schedule.

8. Risk/Vulnerability Assessment

The purpose of the deliverables to be developed and work to be performed under this Section is to assess the level of risk the Facility may pose to the groundwater and drinking water aquifers and to inform the Parties in subsequent development of BAPT decisions.

The Risk/Vulnerability Assessment Report may include:

- a. A risk matrix;
- b. Probability of catastrophic events (seismic events, leaks);
- c. Completed hydrology studies;
- d. Probability of mechanical and human errors; and
- e. Effectiveness of risk mitigation and protective measures.

8.1 Scoping Meeting(s) for Risk/Vulnerability Assessment

Within thirty (30) days from the Effective Date of the AOC, Navy and DLA shall schedule and hold an initial Scoping Meeting to be attended by the Parties. The purpose of the Scoping Meeting is to detail the contents of the draft Scope of Work for Risk/Vulnerability Assessment, and a decision will be made as to whether additional Scoping Meetings are needed.

8.2 Risk/Vulnerability Assessment Scope of Work

Within ninety (90) days from the final Scoping Meeting, Navy and DLA shall submit the Risk/Vulnerability Assessment Scope of Work to the Regulatory Agencies for approval.

8.3 Risk/Vulnerability Assessment Report

Within eighteen (18) months from the Regulatory Agencies' approval of the Risk/Vulnerability Assessment Scope of Work, Navy and DLA shall submit a Risk/Vulnerability Assessment Report to the Regulatory Agencies for approval. The Risk/Vulnerability Assessment Report may be revised as new information becomes available. All revisions to the Risk/Vulnerability Assessment Report shall be submitted to the Regulatory Agencies for approval.

9. Work Table

Subject	Work	Dates
Section 2 Tank Inspection, Repair, and Maintenance ("TIRM")	2.1 - Scoping Meeting	Within 30 days from effective date of AOC
	2.2 - TIRM Procedures Report	Within 120 days from final Scoping Meeting
	2.3 - Decision Meeting	Within 60 days from Report Receipt
	2.4 - Decision Document/Implementation	Within 60 days from Decision Meeting
Section 3 Tank Upgrade Alternatives ("TUA")	3.1 - Scoping Meeting	Within 30 days from effective date of AOC
	3.2 - Scope of Work	Within 90 days from final Scoping Meeting
	3.3 - TUA Report	Within 12 months from Scope of Work Approval
	3.4 - Decision Meeting	Within 60 days from TUA Report Approval
	3.5 - Decision Document/Implementation	Within 60 days from Decision Meeting
	3.7 - TUA Re-evaluation Report Scope of Work	No later than 1 year prior to expiration of 5-year re-evaluation period
	3.7 – TUA Re-evaluation Report	At least once every five (5) years from approval of initial TUA Decision Document
	3.7– TUA Re-evaluation Decision Meeting	Within 60 days from approval of TUA Re-evaluation Report
	3.7 – Modified TUA Decision Document (if required)	Within 60 days from TUA Re-evaluation Decision Meeting
	3.7 – Modified TIRM Decision Document (if required)	Within 60 days from TUA Re-evaluation Decision Meeting
	3.7 – Military Construction Project Date form (DD Form 1391) or equivalent (if required)	Within 1 year from modified TUA Decision Document approval
	3.7 – Proposal to continue with old BAPT or implement new BAPT (if required)	Within 90 days after military construction funds are appropriated
Section 4 Release Detection / Tank Tightness Testing	4.1 Tank Tightness Testing Frequency	Within 1 year from effective date of AOC
	4.2 - Outline of Current Fuel Release Monitoring Systems Report	Within 30 days from effective date of AOC
	4.3 - Current Fuel Release Monitoring Systems Report	Within 60 days from Outline of Current Fuel Release Monitoring Systems Report Approval
	4.4 - Scoping Meeting	Within 60 days from Current Fuel Release Monitoring Systems Report Approval
	4.5 - Scope of Work	Within 90 days from final Scoping Meeting
	4.6 - New Release Detection Alternatives Report	Within 12 months from Scope of Work Approval
	4.7 - Decision Meeting	Within 60 days from New Release Detection Alternatives Report Approval
	4.8 - Decision Document/Implementation	Within 60 days from Decision Meeting
Section 5 Corrosion and Metal Fatigue Practices	5.1 - Outline of Corrosion and Metal Fatigue Practices Report	Within 30 days from effective date of AOC
	5.2 - Corrosion and Metal Fatigue Practices Report	Within 60 days from Outline of Corrosion and Metal Fatigue Practices Report Approval
	5.3.1 - Scoping Meeting for Destructive Testing	Within 90 days from Report Approval
	5.3.2 - Scope of Work for Destructive Testing	Within 90 days from final Scoping Meeting
	5.3.3 - Destructive Testing Results Report	Within 24 months from Scope of Work Approval
	5.4 - Scoping Meeting for Modified Corrosion and Metal Fatigue Practices (if required)	Within 60 days from Destructive Testing Results Report Approval
Section 6 Investigation and Remediation of Releases	6.1 - Scoping Meeting	Within 30 days from effective date of AOC
	6.2 - Scope of Work	Within 60 days from final Scoping Meeting
	6.3 - Investigation and Remediation of Releases Report	Within 24 months from Scope of Work Approval
	6.4 - Decision Meeting	Within 60 days from - Investigation and Remediation of Releases Report Approval

	6.5 - Decision Document/Implementation	Within 60 days from Decision Meeting
Section 7 Groundwater Protection and Evaluation		
<i>Section 7.1 Groundwater Flow Model Report</i>	7.1.1 - Scoping Meeting	Within 30 days from effective date of AOC
	7.1.2 - Scope of Work	Within 90 days from final Scoping Meeting
	7.1.3 - Groundwater Flow Model Report	Within 24 months from Scope of Work Approval
<i>Section 7.2 Contaminant Fate and Transport Model Report</i>	7.2.1 - Scoping Meeting	Within 30 days from effective date of AOC
	7.2.2 - Scope of Work	Within 90 days from final Scoping Meeting
	7.2.3 - Contaminant Fate and Transport Model Report	Within 180 days from Groundwater Flow Model Report Approval
<i>Section 7.3 Groundwater Monitoring Well Network</i>	7.3.1 - Scoping Meeting	Within 30 days from effective date of AOC
	7.3.2 - Scope of Work	Within 90 days from final Scoping Meeting
	7.3.3 - Groundwater Monitoring Well Network Report	Within 12 months from Groundwater Flow Model Report Approval
	7.3.4 - Decision Meeting	Within 60 days from Groundwater Monitoring Well Network Report Approval
	7.3.5 - Decision Document/Implementation	Within 60 days from Decision Meeting
Section 8 Risk/Vulnerability Assessment		
	8.1 - Scoping Meeting	Within 30 days from effective date of AOC
	8.2 - Scope of Work	Within 90 days from final Scoping Meeting
	8.3 - Risk/Vulnerability Assessment Report	Within 18 months from Scope of Work Approval

10. Acronyms and Abbreviations

AOC	Administrative Order on Consent
API	American Petroleum Institute
BAPT	Best Available Practicable Technology
DLA	Defense Logistics Agency
DOH	Hawaii Department of Health
EPA	United States Environmental Protection Agency
Navy	United States Department of Navy
QA/QC	Quality Assurance and Quality Control
SOW	Statement of Work
TIRM	Tank Inspection Repair, and Maintenance
TUA	Tank Upgrade Alternatives
USTs	Underground Storage Tanks