

DEPARTMENT OF HEALTH  
STATE OF HAWAII

DEPARTMENT OF HEALTH, STATE OF  
HAWAI'I,

Complainant,

vs.

UNITED STATES DEPARTMENT OF  
THE NAVY,

Respondent,

vs.

SIERRA CLUB and HONOLULU BOARD  
OF WATER SUPPLY

Intervenors.

Docket No. 21-UST-EA-02

HEARINGS OFFICER'S PROPOSED  
DECISION AND ORDER, FINDINGS OF  
FACT, AND CONCLUSIONS OF LAW

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FINDINGS OF FACT, AND CONCLUSIONS OF LAW

The Hearings Officer held an evidentiary hearing on December 20 and 21, 2021.

The parties are Complainant Department of Health, State of Hawai'i ("DOH"); Respondent United States Department of the Navy ("Navy"); Intervenor Honolulu Board of Water Supply ("BWS"); and Intervenor Sierra Club.

The record of the evidentiary hearing consists of the following, including any other evidence admitted into the record not expressly mentioned here:

Testimony

The testimony of all witnesses on December 20, 2021

Declarations of Testimonial Witnesses

- Written Testimony of Erwin M. Kawata (filed Dec. 18, 2021)
- Updated Written Testimony of David M. Norfleet (filed Dec. 19, 2021)
- Declaration of Kevin T. Aubart (filed Dec. 18, 2021)
- Declaration of Laurence Thomas Ramsey (filed Dec. 18, 2021)
- Declaration of Kimberly Charters (filed Dec. 18, 2021)
- Declaration of Melinda Healani Sonoda-Pale (filed Dec. 18, 2021)
- Declaration of Carly Lintner (filed Dec. 18, 2021)
- Declaration of Wayne Tanaka (filed Dec. 18, 2021)
- Declaration of James B. Balocki (filed Dec. 18, 2021; also Ex. N-1)
- Declaration of James G. Meyer (filed Dec. 18, 2021; also Ex. N-2)
- Declaration of Sherri R. Eng (filed Dec. 18, 2021; also Ex. N-3)
- Declaration of Captain Michael B. McGinnis (filed Dec. 18, 2021; also Ex. N-4)

## Exhibits

The following exhibits were uploaded into the joint Sharepoint exhibit database ["DOH v. Navy (21-UST-EA-02) (Exhibits for Evidentiary Hearing)"] accessible to all of the parties, as reflected in the following exhibit lists:

- Department of Health Exhibit List (filed Dec. 18, 2021)
- Intervenor Board of Water Supply's Updated Exhibit List (filed Dec. 21, 2021)
- Sierra Club's Amended Exhibit List (filed Dec. 21, 2021)
- Navy's Witness List and [Amended] Exhibits (found in the Exhibit database, subfolder "Navy Exhibits," document Case No. 21-UST-EA-02 Navy Witness Exhibit List\_Update 2 12.21.2021.pdf)<sup>1</sup>

The parties submitted their own proposed findings of fact and conclusions of law. Pursuant to instructions of the Hearings Officer on December 17 and 21, 2021, on the record, the Hearings Officer advised the parties that due to the size of the evidentiary record and the emergency nature of the proceedings, he would be entitled to rely upon the parties to direct the Hearings Officer to the relevant portions of the evidentiary record in support of their arguments. See HRS § 91-10 ("[N]o sanction shall be imposed or rule or order be issued except upon consideration of the whole record *or such portions thereof as may be cited by any party . . .*") (emphasis added)).

The Hearings Officer considered the testimony of witnesses, reviewed declarations and exhibits admitted into evidence, and heard the statements and arguments of counsel. The Hearings Officer is fully advised. Pursuant to HAR § 11-1-

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<sup>1</sup> The declarations of the Navy's counsel in this proceeding Marnie E. Riddle are exhibits N-5, N-6, and N-7.

42(a)(1), the Hearings Officer makes the following Proposed Decision and Order, Findings of Fact, and Conclusions of Law.

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**I. FINDINGS OF FACT**

To the extent that these findings of fact contain conclusions of law, they shall be considered as such.

**A. Nature of the Findings of Fact**

1. To the extent that there is conflicting evidence or testimony in the record, the weight of the evidence supports the following findings of fact.

2. To the extent that evidence or testimony was impeached on cross-examination, the weight of the evidence supports the following findings of fact.

3. The findings herein are brief, definite, and pertinent findings. They are not elaborate findings nor negative findings in every instance. The findings do not state every option considered, but that does not mean that such options were not considered. See *Jarrell v. Jarrell*, No. 29124, 2013 WL 216302, at \*5 (App. Jan. 18, 2013) (SDO).

4. The following facts have been established by a preponderance of the evidence.

**B. The Red Hill Bulk Fuel Storage Facility**

5. The Red Hill Bulk Fuel Storage Facility (“Red Hill Facility”) is a field-constructed underground storage tank (“UST”) system on the Island of O’ahu in the State of Hawai’i, approximately 2.5 miles northeast of Pearl Harbor.

6. The Navy is the owner and operator of the Red Hill Facility.

7. The Red Hill Facility was constructed by the United States during World War II and began operation in 1943.

8. The Red Hill Facility occupies approximately 144 acres of land along the western edge of the Ko'olau Range situated on a topographic ridge that divides the Hālawā Valley and Moanalua Valley. It consists of twenty field-constructed USTs as well as pipelines and other infrastructure.

9. The twenty USTs were constructed during the early 1940s by mining into the ridge to create cavities for concrete tanks lined with ¼ inch steel plates welded together. The USTs are constructed of concrete lined with steel, with the floor constructed out of ½ inch steel and walls constructed of ¼ inch steel. The lower dome is surrounded by reinforced concrete that has a minimum thickness of 4 feet, except for the 20-foot diameter flat bottom plate at the center of the lower dome which sits on top of a plug of concrete approximately 20 feet thick. The reinforced concrete surrounding the cylindrical barrel of the UST is an estimated minimum of 2.5 to 4 feet of concrete. The entire UST system is surrounded by basalt bedrock.

10. Each UST is approximately 250 feet tall, 100 feet in diameter, and provides a fuel storage capacity of up to 12.5 to 12.7 million gallons of jet or marine fuel.

11. In addition to the twenty USTs, the Red Hill Facility includes seven miles of tunnels with 29 miles of pipelines, ventilation systems with air intakes and exhaust portals, a pumphouse, control room, surge tanks, slop oil and oil recovery facilities, and a pier that can fuel ships.

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**C. How the Red Hill Facility is Used**

12. The Red Hill USTs store marine diesel (F-76) and two types of jet fuel (JP-5 and F-24).

13. The Red Hill Facility provides fuel to domestic military services that operate in the Pacific Area of Responsibility, including the Navy, U.S. Air Force, U.S. Marine Corps, U.S. Army, Hawaiian National Guard, and the U.S. Coast Guard, and is also available to support civilian authorities in the event of a local emergency or natural disaster.

14. The USTs are connected to three pipelines that run for approximately 2.5 miles through an underground access tunnel to the underground pumphouse at Pearl Harbor. The fuel can be moved from the Red Hill Facility USTs to Pearl Harbor via gravity.

15. Two of the USTs (Tanks 1 and 19) are permanently empty and are no longer in use. Another four USTs are currently empty as part of the Navy's ongoing clean, inspect, and repair program. The Navy generally stores fuel in 14 or 15 USTs at the Red Hill Facility, with a total capacity of over 187 million gallons of fuel.

**D. The Red Hill Facility is Situated Directly Above the Southern O'ahu Basal Aquifer**

16. The Red Hill Facility sits directly above O'ahu's federally designated sole-source groundwater aquifer, the Southern O'ahu Basal Aquifer.

17. The bottoms of the USTs are located approximately 100 feet above the groundwater aquifer used as a drinking source by the BWS and the Navy.

18. The Southern O'ahu Basal Aquifer is irreplaceable.

19. This aquifer is the principal source of drinking water for the island.

20. Seventy-seven percent of the total island-wide water supply comes from the Southern O'ahu Basal Aquifer.

21. The BWS draws on the same aquifer that underlies the Red Hill Facility to supply drinking water to residents from Moanalua to Hawai'i Kai.

22. There is no existing alternative drinking water source, or combination of sources, which provides fifty percent or more of the drinking water to the designated area, nor is there any demonstrated available alternative future source capable of supplying the area's drinking water needs.

23. The environment that underlies the Red Hill Facility is sensitive.

24. The aquifer is fresh and vulnerable to contamination.

**E. The History of Recorded Releases from the Red Hill Facility Predating the November 2021 Release**

25. There have been numerous reported releases from the Red Hill Facility over the past 80 years or so: at least 76 incidents involving nearly 200,000 gallons of fuel. More likely than not, these figures understate the true number of releases or the total volume of fuel actually released.

26. Fuel releases have been a constant threat since the Red Hill Facility became operational during the 1940s and have continued to occur.

27. In January 2014, the Navy reported a release into the environment of approximately 27,000 gallons of fuel from Tank 5 ("January 2014 Release"). This release occurred during the filling of Tank 5. Although the release occurred between December 12, 2013 and January 6, 2014, the Navy did not verbally report the release to the DOH until January 13, 2014.

28. On May 6, 2021, there was a pressure surge event resulting in the release of an initially reported approximately 1,600 gallons of jet fuel from supply piping in the lower access tunnel tanks during the refilling of Tank 20 on May 6, 2021 (“May 2021 Release”). The 1,600 gallons of fuel reported released was likely lower than what was actually released.

29. On July 16, 2021, there was a fuel release from a pipeline at Kilo Pier of approximately 150 gallons (“Kilo Pier Release”).

30. Historical releases have adversely impacted the environment as is evidenced by detection of fuel and fuel constituents in the Navy’s drinking water supply, the groundwater under the Red Hill Facility, and the soil vapor monitoring probes in the rocks beneath the facility.

**F. The Administrative Order of Consent**

31. In September 2015, the Navy and the Defense Logistics Agency—the owner of the fuel stored at Red Hill—entered into an administrative order of consent (“AOC”) with the Environmental Protection Agency and the DOH requiring the Navy to conduct certain investigations and other work to address fuel releases from Red Hill. The AOC includes a Statement of Work (“SOW”) that outlines various actions that are “necessary to address potential impacts to human health, safety and the environment ... due to historical, recent and potential future releases at the [Red Hill] Facility.”

32. The AOC SOW consists of eight sections including: Section 1: Overall Program Responsibility; Section 2: Tank Inspection, Repair, Maintenance (TIRM); Section 3: Tank Upgrade Alternatives; Section 4: Release Detection/Tank Tightness Testing; Section 5: Corrosion and Metal Fatigue Practices; Section 6: Investigation and

Remediation of Releases; Section 7: Groundwater Protection and Evaluation; and Section 8: Risk/Vulnerability Assessment.

33. Paragraph 18 (“Reservation of Rights”) of the AOC states, in pertinent part:

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 . . . *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 of this AOC and, if necessary, through the Dispute Resolution process set forth in Section 14.

Ex. D05, § 18(a) (emphasis added).

**G. The November 2021 Release Caused a Humanitarian and Environmental Disaster**

34. On November 20, 2021, a release of fuel occurred at the Red Hill Facility (“November 2021 Release”). The Navy reported a release and recovery of approximately 14,000 gallons of a mixture of fuel and water from the fire-suppression system at the Red Hill Facility from the Navy’s fire suppression system on November 20, 2021.

35. At the evidentiary hearing, the Navy presented a “working theory” for what happened. The Navy’s theory was that the May 2021 Release was the source of the fuel, or that the two releases are related, and that fuel made its way into the fire-suppression system. The Navy did not state with any exacting reliability a full picture of what happened, or why and how the release occurred.

36. The November 2021 Release caused the Red Hill Shaft, a drinking-water source for the U.S. military, to be seriously contaminated with fuel.

37. Approximately one week following the November 2021 Release, fuel flowed from the Red Hill Shaft to occupied structures, including the homes of residents in military housing, and ultimately through their taps.

38. Men, women, children, and pets drank and used the contaminated water.

39. In sum, the November 2021 Release caused a humanitarian and environmental emergency and disaster.

40. The testimony of Kimberly Charters and Carly Lintner and the video evidence of other victims relating their experiences were highly credible and perhaps the most important to the overall factual balancing in a finding that the November 2021 Release caused a humanitarian and environmental emergency and disaster.

41. Everything about this evidence spoke three words: disaster, crisis, emergency. This evidence, in conjunction with the other record evidence, establishes that:

- a. The water contamination was widespread and not unique to any one person.
- b. The water coming from their taps into their homes was not just mildly contaminated but poisoned with fuel.
- c. The Navy did not provide sufficient warning; people discovered for themselves that the water was poisoned based upon strong odors of fuel emanating from the water, or when they or their pets got sick.
- d. The interior of peoples' homes smelled like "gas stations."

- e. Men, women, and children became seriously physically ill.
- f. Pets became ill, requiring medical attention, and at least one was potentially killed.
- g. People have suffered and continue to suffer mental and emotional distress and anguish.
- h. The lack of water impacted and continues to have impacts upon virtually every important aspect of their lives.
- i. Families were temporarily relocated.
- j. Their lives have been and continue to be totally upended.
- k. The November 2021 Release affected many thousands of O'ahu residents in these or similar ways.

42. The testimony of the Navy's witnesses Captain James G. Meyer and Captain Michael B. McGinnis is also important. Both witnesses testified that the November 2021 Release and the water contamination caused a crisis that is still being addressed.

43. Additionally, the Navy does not yet know the full extent of the health effects of the contamination. People whose homes received contaminated water from the Navy's water system had suffered stomachaches, vomiting, nausea, diarrhea, skin rashes, sore throats, burning eyes, headaches, and difficulty breathing, including illnesses requiring emergency medical attention. People are still suffering mental and emotional effects from their experiences.

44. The Navy shut down its Red Hill Shaft and the 'Aiea-Hālawā Shaft in response to the drinking water contamination.

45. After the November 2021 Release, BWS shut off three of its well stations that are in close proximity to the Red Hill Facility.

46. The Secretary of the Navy ordered the cessation of all operations at the Red Hill USTs while it conducts an investigation.

47. The amount of diesel (total petroleum hydrocarbons, or TPH-d) present in samples taken by DOH on December 5, 2021 from the Navy's Red Hill Shaft drinking water well indicates that the Navy's drinking water supply was contaminated with TPH-d levels as high as 140,000 µg/L, significantly higher than DOH environmental action level ("EAL"). TPH-g levels (regarding other fuel) were as high as 20,000 µg/L. The TPH-d level is 350 times the DOH's EAL for drinking water toxicity, which is 400 µg/L. The DOH's EAL for drinking water toxicity is 300 µg/L for TPH-g.

48. In December 2021, diesel fuel levels in samples from the Navy's water distribution system at its 'Aiea Hālawā Shaft were more than double the state-approved levels for drinking water. This indicates that the environmental damage extends beyond the Red Hill Shaft.

49. The Navy does not have a permanent water treatment system to address either recent fuel releases or future fuel releases.

50. The water is not yet clean.

51. The environment has not yet been remediated.

52. The humanitarian response is ongoing.

53. The environmental response is ongoing.

54. The Navy's investigation is ongoing.

55. The Navy does not know precisely what happened. The Navy does not know why or how the November 2021 Release happened at this time.

56. The Navy does not know exactly how the environment has been damaged or the full extent of the damage.

57. The Navy does not know the exact long-term consequences of the November 2021 Release to humans or the environment.

58. The Navy still does not know what it intends to do to address any root causes of the November 2021 Release.

**H. The Red Hill Facility, as Currently Configured and Operated, Poses an Imminent Threat to Human Health and Safety or the Environment**

59. Continued operation of the Red Hill Facility, as it is currently configured and operated, poses an imminent threat to human health and safety or the environment.

60. The most weighty, important evidence underpinning this finding are (1) the expert report and testimony of David M. Norfleet, and (2) the facts relating to the history of releases from the Red Hill Facility (and especially the facts surrounding the November 2021 Release and the aftermath) notwithstanding the Navy's best efforts.

61. First, Mr. Norfleet's expert report and testimony were perhaps the most important pieces of evidence in the whole evidentiary hearing. Mr. Norfleet was credible. His ultimate opinions survive scrutiny and are weighty enough to establish the facts by a preponderance of the evidence, in conjunction with the other evidence presented.

62. The facts established by his report and testimony and borne out by the other evidence presented are:

- a. More releases of fuel from the Red Hill facility are basically inevitable.

- b. The Red Hill USTs have a history of leaking and will continue to leak.
- c. The probability of an acute leak of 1,000 to 30,000 gallons of fuel each year is at least 27%, which is likely an understated percentage
- d. The probability of a sudden release of more than 120,000 gallons of fuel in the next 100 years is at least 34%, which is likely an understated percentage.
- e. The expected volume of chronic, undetected fuel releases from the Red Hill Facility is at least 5,803 gallons per year.
- f. The Navy cannot prevent future releases at the Red Hill Facility.
- g. Breaches will continue to occur at the Red Hill Facility.
- h. The Red Hill Facility is nearing the end of its life and has reached the “end-of-life” phase.

63. Looking a different way at the probabilities of a 1,000 to 30,000 gallon release, the probability of a release over the next five years is approximately 80%, with a release of that size occurring over the next ten years approximately 96%, and a release of that size over the next twenty years 99.8%.

64. Among the additional facts established by Mr. Norfleet and the record evidence are:

- a. The 76 reported fuel releases are more likely than not only a portion of the true number of releases.
- b. The size and scope of the Red Hill USTs are unprecedented in the oil and gas industry.

- c. The Red Hill USTs have a serious corrosion problem that the Navy will be unable to address over time.
- d. Leaked fuel can reach the environment at large and cause harm.
- e. Some USTs have gone too long without inspection.
- f. The combination of the manual nature of inspections, the dependence on the ability/competence of individual inspectors, the presence of an internal coating on the steel liner, the difficult working conditions, and the sheer size of the facility are detrimental to adequate, consistent, and reliable inspections and inspection results, which are required to prevent releases from the USTs.

65. Second, the history of releases, notwithstanding the Navy's best efforts to prevent them, is damning.

66. The November 2021 Release is in a way unique like all releases are in their way unique. But taking a larger view, the November 2021 Release is simply another datapoint along the Red Hill Facility's track record establishing that the problems with the Red Hill Facility, as it is currently situated, are beyond the Navy's ability to control.

67. In just this year, there were at least two releases before the November 2021 Release.

68. The Navy is not reliable with respect to monitoring whether leaks are occurring, determining how much fuel is released into the environment when leaks occur, and ascertaining threats.

69. The Navy initially estimated the May 2021 Release from the transfer of fuel between Red Hill tanks at approximately 1,000 gallons. Four months later, the Navy revised its estimate upward to 1,618 gallons and claimed that it successfully recovered all but 38 gallons of fuel. The Navy now hypothesizes—but does not know—that the May 2021 Release may be the source of the November 2021 Release of jet fuel.

70. The fact that the Navy theorizes that the May 2021 Release and the November 2021 Release are connected evidences a lack of understanding of, and control over, the Red Hill Facility.

71. The Navy obviously does not want the Red Hill Facility to release fuel, and the Navy is trying to prevent releases. But despite everything the Navy is attempting to do, it is not enough: the evidence shows that the Red Hill Facility is simply too old, too poorly designed, too difficult to maintain, too difficult to inspect, along with being too large to realistically prevent future releases. It is not just one problem but a combination of many.

72. The Navy's inability to prevent the previous releases, or the November 2021 Release, from happening, and inability to sufficiently respond to the November 2021 Release to prevent harm to O'ahu residents—despite all of its efforts to prevent and detect releases—are weighty considerations.

73. In sum, the situation is beyond the Navy's ability to adequately mitigate the threats posed by the continued operation of the Red Hill Facility, with USTs filled with fuel, at this time.

74. The threat of future releases poses an imminent peril to human health and safety or the environment at large.

75. Not only does the year-to-year probability of a significant release make a future release basically inevitable, the contamination of the Red Hill Shaft and its effect on O'ahu residents in just the past month is incontrovertible evidence of the peril.

76. It could be much worse. An unprecedentedly large UST system 100 feet containing a massive volume of fuel located directly above a major aquifer is dangerous.

77. There are pathways for fuel to travel from the Red Hill Facility to the environment at large.

78. Fuel released from the Red Hill Facility presents a risk to the groundwater underlying the Red Hill Facility and the sole source aquifer generally.

79. Sampling from under and around the Red Hill Facility has demonstrated the existence of petroleum contamination in the groundwater.

80. The area beneath the Red Hill Facility does not absorb fuel well enough to mitigate the peril to human health and safety or the environment at large.

81. The layers of protection intended to prevent releases from entering the environment are unreliable.

82. Test results indicate that, prior to the November 2021 Release, petroleum constituents have been detected in Red Hill Shaft as high as 490 µg/L in 2020 and in Red Hill Shaft as high as 540 µg/L in August 2021 and in Red Hill Monitoring Wells 16 and 19 as high as 380 µg/L in fall 2021.

83. As long as fuel remains in the Red Hill USTs, both acute and chronic fuel releases are likely to continue.

84. The presence of fuel in the Red Hill USTs is an ongoing threat to human health and safety or the environment, given these problems.

85. Both parties have raised other points regarding what the Navy is or is not doing, sampling, monitoring, modeling, testing, deliverables under the AOC, who is at fault for delays, and the like. Specific findings on these points are unnecessary in this emergency proceeding where the weight of the evidence underlying the above findings are dispositive.

**I. The Emergency Order and Response**

86. On December 3, 2021, the Commander of the U.S. Pacific Fleet authorized an investigation into the cause of the May 2021 and November 2021 Releases, or other similar events, to be completed by January 14, 2022.

87. The investigation could be changed or modified at any time by a sufficiently high-ranking Naval authority, without the DOH or anyone else being able to prevent it.

88. The January 14, 2022 deadline could be extended.

89. On December 6, 2021, the DOH issued the Emergency Order to the Navy. The Emergency Order requires the Navy to (1) “[i]mmediately suspend operations including, but not limited to, fuel transfers at the Bulk Fuel Storage Tanks at the Facility. Respondent shall, however, maintain environmental controls, release detection and release response protocols, and compliance with applicable regulations,” (2) “[t]ake immediate steps to install a drinking water treatment system or systems at Red Hill

Shaft to ensure distribution of drinking water conforms to the standards prescribed by the Safe Drinking Water Act and applicable regulations and minimize movement of the contaminant plume(s). The treatment system(s) shall be reviewed and approved by the Department prior to installation and shall be installed as expeditiously as practicable,”

(3) “[w]ithin 30 days of receipt of this EO, submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess the Facility operations and system integrity to safely defuel the Bulk Fuel Storage Tank. Upon the Department’s approval of the assessment, workplan and implementation schedule, conduct necessary repairs and make necessary changes in operations to address any deficiencies identified in the assessment and workplan. Corrective actions shall be performed as expeditiously as possible,” (4) “[w]ithin 30 days of completion of required corrective actions under Item 3, defuel the Bulk Fuel Storage Tanks at the Facility. Any refueling shall be subject to a determination by the Department that it is protective of human health and the environment,” and (5) “[w]ithin 30 days of the receipt of the EO submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess operations and system integrity of the Facility to determine design and operational deficiencies that may impact the environment and develop recommendations for corrective action. Submit the assessment, proposed work and recommendations for corrective action to the Department with an implementation schedule. Upon the Department’s approval, perform work and implement corrective actions. Corrective actions shall be performed as expeditiously as possible.”

90. By letter dated December 7, 2021, the Navy informed the DOH of its intent to contest the Emergency Order.

91. Also on December 7, 2021, the Secretary of the Navy issued a Memorandum for the Chief of Naval Operations, titled "Immediate Actions: Red Hill Underground Storage Tanks."

92. The Secretary ordered:

- a. The cessation of all operations at the Red Hill USTs until the investigation into the cause of the incident is complete.
- b. The continuing isolation of the Red Hill and Halawa wells which the Navy operates, until the water distribution main and all affected homes and buildings have been flushed and can be supplied with potable water that meets EPS drinking water standards.
- c. Evaluate acquisition of a drinking water treatment system or systems at the Red Hill Shaft.
- d. Within 30 calendar days, the Navy will consult with a qualified independent third party to assess operations and system integrity of the Red Hill Facility to determine design and operational deficiencies that may impact the environment and to develop a work plan and implementation schedule to conduct necessary repairs and make necessary changes in the operations to address any deficiencies identified in the assessment. Corrective actions shall be performed as expeditiously as possible.

- e. Following the independent third-party assessment, the Navy will approve a final work plan and implementation schedule and will expeditiously perform work and make necessary changes in operation.

93. The December 7, 2021 Memorandum was partially modeled upon, and drafted as an indirect response to, the Emergency Order.

94. The December 7, 2021 Memorandum tacitly recognizes that aspects of the five directives in the Emergency Order are necessary and appropriate in the circumstances.

95. The December 7, 2021 Memorandum can be rescinded, in whole or in part, by the Secretary of the Navy at any time.

96. There is no guarantee that the Navy will begin operating the Red Hill Facility again only after the perils to human health and safety or the environment associated with the Red Hill Facility are all remediated.

97. There is no guarantee that the Navy will not act in the perceived best interest of the Navy, notwithstanding the threats to the health and safety of the people of Hawai'i and to the environment.

98. Under the December 7, 2021 Memorandum, the Navy ultimately decides what should and will be done.

**J. The Five Directives of the Emergency Order**

99. Item 1 of the Emergency Order requires the Navy to “[i]mmediately suspend operations including, but not limited to, fuel transfers at the Bulk Fuel Storage Tanks at the Facility. Respondent shall, however, maintain environmental controls,

release detection and release response protocols, and compliance with applicable regulations.” These actions are necessary and designed to reduce or stop the imminent peril caused by the November 2021 Release and continuing operations at the Red Hill Facility as currently configured and operated.

100. Item 2 of the Emergency Order requires the Navy to “[t]ake immediate steps to install a drinking water treatment system or systems at Red Hill Shaft to ensure distribution of drinking water conforms to the standards prescribed by the Safe Drinking Water Act and applicable regulations and minimize movement of the contaminant plume(s). The treatment system(s) shall be reviewed and approved by the Department prior to installation and shall be installed as expeditiously as practicable.” These actions are necessary and designed to reduce or stop the imminent peril caused by the November 20, 2021 Release and continuing operations at the Red Hill Facility as currently configured and operated.

101. Item 3 of the Emergency Order requires the Navy to “[w]ithin 30 days of the receipt of the EO submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess operations and system integrity of the Facility to determine design and operational deficiencies that may impact the environment and develop recommendations for corrective action to the Department with an implementation schedule. Upon the Department’s approval, perform work and implement correct actions. Corrective actions shall be performed as expeditiously as possible.” These actions are necessary and designed to reduce or stop the imminent peril caused by continuing operations at the Red Hill Facility as currently configured and operated.

102. Item 4 of the Emergency Order requires the Navy to “[w]ithin 30 days of completion of required corrective actions under Item 3, defuel the Bulk Fuel Storage Tanks at the Facility. Any refueling shall be subject to a determination by the Department that it is protective of human health and the environment.” These actions are necessary and designed to reduce or stop the imminent peril caused by continuing operations at the Red Hill Facility as currently configured and operated.

103. Item 5 of the Emergency Order requires the Navy to, “[w]ithin 30 days of receipt of this EO submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess operations and system integrity of the Facility to determine design and operational deficiencies that may impact the environment and develop recommendations for corrective action. Submit the assessment, proposed work and recommendations for corrective action to the Department with an implementation schedule. Upon the Department’s approval, perform work and implement corrective actions. Corrective actions shall be performed as expeditiously as possible.” These actions are necessary and designed to reduce or stop the imminent peril caused by continuing operations at the Red Hill Facility as currently configured and operated.

**K. Ultimate Factual Conclusions**

104. The weight of the evidence establishes that the November 2021 Release was a humanitarian and environmental disaster. This disaster was caused by a release of fuel from the Red Hill Facility. Citizens and residents of the State of Hawai’i drank and used water out of their taps that was contaminated with fuel, which caused substantial physical injury to people and their pets and intolerably upended their lives. It

caused environmental harm to a source of drinking water in the State of Hawai'i. The emergency is not over. The disaster caused by the November 2021 Release has not been resolved. The State of Hawai'i, DOH, BWS, the individuals affected, and the public at large have a strong interest in ensuring that the harm caused to people and the environment is resolved in accordance with the directives of the DOH in the Emergency Order, which were legally authorized and appropriate. That the November 2021 Release and aftermath constitute an imminent peril to human health and safety or the environment is a fact established by a preponderance of the evidence.

105. The weight of the evidence establishes that the Red Hill Facility, as currently situated, is a metaphorical ticking timebomb located 100 feet above the most important aquifer on Hawaii's most populous island. The Red Hill Facility has already damaged human health and the environment and, as currently situated, inevitably threatens to do so into the future. The Navy lacks the ability to control the substantial risks associated with the Red Hill Facility, as currently situated.

106. The State of Hawai'i, DOH, BWS, and the public at large all have a strong interest in ensuring that the threats posed by the Red Hill Facility do not come to pass. They have a strong interest in being protected in accordance with the directives of the DOH in the Emergency Order, which were legally authorized and appropriate. That the Red Hill Facility, as currently constituted, poses an imminent peril to human health and safety or the environment is a fact established by a preponderance of the evidence.

## **II. CONCLUSIONS OF LAW**

To the extent that these conclusions of law contain findings of fact, they shall be considered as such.

**A. The Emergency Order's Two Related "Perils"**

1. The Emergency Order was issued pursuant to HRS § 342L-9, which invokes the State and DOH's "emergency powers" to prevent or respond to an "imminent peril to human health and safety or the environment."

2. The Emergency Order alleges two separate, but related, "perils."

3. The first alleged "peril" concerns a specific event: the November 2021 Release, the contamination of the Red Hill Shaft, the harm caused to Hawai'i residents, and the response thereto.

4. The second alleged "peril" is the Red Hill Facility itself, based upon the history of releases, the lack of "necessary environmental protection to rapidly identify and remediate fuel leaks," and the assertion that the Navy "has not demonstrated that immediate and appropriate response actions are available, and therefore cannot ensure that immediate and appropriate response actions will be available should another release occur[] in the future."

**B. Interpretation of HRS § 342L-9**

5. This resolution of this proceeding requires the application of the facts to HRS § 342L-9. This, in turn, requires a legal interpretation of that statute.

6. When interpreting statutes, Hawai'i law requires us to consider five well-established principles:

First, the fundamental starting point for statutory interpretation is the language of the statute itself. Second, where the statutory language is plain and unambiguous, our sole duty is to give effect to its plain and obvious meaning. Third, implicit in the task of statutory construction is our foremost obligation to ascertain and give effect to the intention of the legislature, which is to be obtained primarily from the language contained in the statute itself. Fourth, when there is doubt, doubleness of meaning, or indistinctiveness or uncertainty of an expression used in a statute, an

ambiguity exists. And fifth, in construing an ambiguous statute, the meaning of the ambiguous words may be sought by examining the context, with which the ambiguous words, phrases, and sentences may be compared, in order to ascertain their true meaning.

*Haw. Gov't Emps. Ass'n, AFSCME Local 152, AFL-CIO v. Lingle*, 124 Hawai'i 197, 202, 239 P.3d 1, 6 (2010).

7. HRS § 342L-9(a) states:

(a) Notwithstanding any other law to the contrary, if the governor or the director determines that an imminent peril to human health and safety or the environment is or will be caused by:

(1) A release;

(2) Any action taken in response to a release from an underground storage tank or tank system; or

(3) The installation or operation of an underground storage tank or tank system;

that requires immediate action, the governor or the director, without a public hearing, may order any person causing or contributing to the peril to immediately reduce or stop the release or activity, and may take any and all other actions as may be necessary. The order shall fix a place and time, not later than twenty-four hours thereafter, for a hearing to be held by the director.

**1. Defined Terms**

8. The "director" is the director of health. HRS § 342L-1. Kathleen S. Ho, who executed the Emergency Order, is the Deputy Director for Environmental Health and by definition acts as the deputy for the director of health.

9. "Underground storage tank" means in pertinent part "any one or combination of tanks (including pipes connected thereto) used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is ten per cent or more beneath the surface

of the ground. HRS § 342L-1. Each of the twenty Red Hill Bulk Fuel Storage Tanks is an “underground storage tank.”

10. “Underground storage tank system” means “an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.” HRS § 342L-1. The Red Hill Facility constitutes an underground storage tank system.

11. A “release” “includes, but is not limited to, any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from an underground storage tank or tank system.” HRS § 342L-1.

12. The Red Hill Facility has a long history of “releases.” Among them, the January 2014 Release, the May 2021 Release, the Kilo Pier Release, and the November 2021 Release constitute “releases.”

13. “Person” includes “the United States government, federal agency, . . . or any other legal entity.” The Navy is a “person” for purposes of HRS § 342L-9.

## **2. Interpretation of “Imminent Peril”**

14. “Imminent peril” is undefined by statute. No Hawai‘i case has interpreted the meaning of this phrase within the context of the statute.

15. The plain meaning of the word “peril” is straightforward. It implies *risk*, not inevitability—the “exposure to injury, loss, or destruction; grave risk; jeopardy; danger.”

See <https://www.dictionary.com/browse/peril>.

16. “Imminent,” implies a degree of closeness in time—“likely to occur at any moment.” See <https://www.dictionary.com/browse/imminent>.

17. Under HRS § 342L-9, a *release* does not need to be imminent. It is the *peril*—the *risk*—that must be imminent.

18. A release that has already occurred that has damaged human health or the environment and that is not resolved to DOH's satisfaction constitutes "an imminent peril to human health and safety or the environment." Here, the environment has already been damaged by the November 2021 Release and remains damaged.

19. With respect to USTs, frequently—as evidenced by the Red Hill Facility's substantial history of releases—the DOH is forced to *react* to an event that has *already occurred*. The purpose of HRS § 342L-9, on the other hand, is plainly to provide the DOH with the ability to *prevent* harm to human health and safety or the environment caused by USTs *before the harm occurs* based upon an assessment of *risk*. This assessment of risk does not require the finding of a hole in a tank or that a hole is moments away from developing. It necessarily involves consideration of matters the likes of which were presented at the evidentiary hearing: a history of releases, scientific analysis, expert opinions, consideration of probabilities of future releases, the probability that future releases would cause harm to human health and safety or the environment, and the continuation of releases even with protocols in place where prior attempts to take less drastic measures have failed. The analysis will almost inevitably require prediction and forecasting to have any ability to *prevent* actual harm to the environment *before a release occurs*.

20. This interpretation is consistent with the fact that the "imminent peril" need not arise from a release, but may also arise from the "operation of an underground storage tank or tank system[.]" HRS § 342L-9(a)(3). In other words, the DOH does not

need to show that a release is right upon us before invoking emergency powers. Instead, it is the peril—not that harm—that must be imminent.

21. This interpretation is consistent with the Legislature’s interpretation of HRS § 342L-9. The Legislature has stated that this provision is intended to address, among other things, any *improper management* of solid and hazardous waste because the impact on our ground and surface water poses a serious threat to public health and safety.” 1995 Hawai‘i Senate Journal, Standing Committee Report No. 1193, at 1276 (emphasis added). As the Legislature has read the statute, “improper management” is sufficient to trigger HRS § 342L-9 as an “imminent peril to human health and safety or the environment.”

22. This interpretation is consistent with underlying principles of Hawai‘i environmental law, with which HRS § 342L-9 is fully in accord, and the Legislature acted in accordance with these principles. See, e.g., Haw. Const. art. XI, §§ 1, 7, 9; *In re Waiāhole Ditch Combined Contested Case Hr’g*, 94 Hawai‘i 97, 9 P.3d 409 (2000).

23. The Navy argues for an interpretation of “imminent peril” that would require that the threatened harm become actual harm in a very short period of time, like a hurricane about to make landfall tomorrow. This interpretation is inconsistent with the purpose of HRS § 342L-9 and the legislative intent because the purpose of HRS § 342L-9 is to address perils in a proactive fashion—rationally, not instinctively—to safeguard “human health and safety or the environment.”

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**C. The DOH Was Authorized to Issue the Emergency Order to the Navy**

**1. The Navy Does Not Possess Sovereign Immunity**

24. Federal law requires all federal agencies, including the Navy, to comply with all Hawai'i "requirements, both substantive and procedural ..., respecting underground storage tanks in the same manner, and to the same extent, as any person is subject to such requirements," including, "but ... not limited to, all administrative orders and all civil and administrative penalties and fines, regardless of whether such penalties or fines are punitive or coercive in nature or are imposed for isolated, intermittent, or continuing violations." 42 U.S.C. § 6991f(a).

25. The United States's express waiver of sovereign immunity subjects the Navy to the same substantive and procedural requirements as any person under state laws regulating USTs. See *id.* ("The United States hereby expressly waives any immunity otherwise applicable to the United States with respect to any such substantive or procedural requirement (including, but not limited to, any injunctive relief, administrative order or civil or administrative penalty or fine referred to in the preceding sentence, or reasonable service charge).").

26. The Navy and the Red Hill Facility are subject to federal law, as well as Hawai'i law, statutes, and regulations.

**2. The AOC Does Not Apply to the Emergency Order**

27. The AOC does not preclude the DOH from exercising its "emergency powers" under H.R.S. § 342L-9.

28. Paragraph 18 ("Reservation of Rights") of the AOC states, in pertinent part:

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 . . . *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 of this AOC and, if necessary, through the Dispute Resolution process set forth in Section 14.

Ex. D05, § 18(a) (emphasis added).

29. The right to take action on an emergency basis under HRS § 342L-9 is expressly reserved from the scope of the AOC, without qualification.

30. The entire purpose of HRS § 342L-9 is to address emergencies—imminent perils to human health and safety or the environment.

31. Emergencies are what the Emergency Order seeks to address, and emergencies are what this Decision and Order addresses.

**D. The November 2021 Release and the Response Thereto Constitutes an “Imminent Peril to Human Health and Safety or the Environment”**

32. The November 2021 Release caused an imminent peril to human health and safety or the environment that still exists and is ongoing. An emergency does exist.

33. The five directives in the Emergency Order are appropriate, authorized, and necessary to mitigate the peril.

34. The Navy’s investigation, the December 8, 2021 Memorandum, and any subsequent remedial measures do not change the analysis. It is the DOH’s job to ensure that the November 2021 Release is properly remediated and that the Red Hill USTs are only allowed to operate again once safe. That was the entire point of the

Emergency Order. The fact that the Navy is voluntarily doing some—but not all—of what the Emergency Order requires, except almost entirely upon the Navy’s own terms, does not make the Emergency Order unnecessary.

**E. The Red Hill Facility, as Currently Constituted, Poses an “Imminent Peril to Human Health and Safety or the Environment”**

35. The Red Hill Facility, as currently configured and operated, constitutes an imminent peril to human health and safety or the environment. An emergency does exist.

36. The five directives in the Emergency Order are appropriate, authorized, and necessary to mitigate the peril.

**F. The Functional Utility of the Red Hill Facility to the Navy is Unimportant for Purposes of This Proceeding**

37. The importance of the Red Hill Facility as fuel storage for the U.S. military has been considered, but it carries no substantial weight in this proceeding.

38. Nothing in HRS § 342L-9 provides or suggests that the decision-maker in the administrative hearing provided should balance the utility of the USTs with the imminent perils to human health or the environment caused by those same USTs. Instead, HRS § 342-9 focuses entirely on protecting people and the environment from harm. In other words, when there is an emergency situation, the Legislature has made the policy decision to protect human lives and the environment over any functional utility of USTs.

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**DECISION AND ORDER**

IT IS HEREBY ORDERED AND DECREED:

The Emergency Order, dated December 6, 2021, is upheld in its entirety.

DATED: Honolulu, Hawai'i, December 27, 2021.



DAVID D. DAY  
Hearings Officer