No. 25-579

In the Supreme Court of the United States

DEPARTMENT OF THE AIR FORCE ET AL., PETITIONERS

v.

PRUTEHI GUAHAN

ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

JOINT APPENDIX

D. JOHN SAUER
Solicitor General
Department of Justice
Washington, D.C. 20530-0001
SupremeCtBriefs@usdoj.gov
(202) 514-2217

Counsel of Record
for Petitioners

CAROLINE A. FLYNN
Earthjustice
120 Eye Street NW
Floor 4
Washington, D.C. 20001
cflynn@earthjustice.org
(202) 797-4316

Counsel of Record
for Respondent

PETITION FOR WRIT OF CERTIORARI FILED: NOV. 14, 2025
CERTIORARI GRANTED: MAR. 9, 2026

TABLE OF CONTENTS

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF GUAM

Civil No.

PRUTEHI LITEKYAN: SAVE RITIDIAN, PLAINTIFF

v.

UNITED STATES DEPARTMENT OF THE AIR FORCE; FRANK KENDALL, SECRETARY OF THE AIR FORCE; UNITED STATES DEPARTMENT OF DEFENSE; AND LLOYD AUSTIN, SECRETARY OF DEFENSE, DEFENDANTS

Filed: Jan. 25, 2022

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

Plaintiff Prutehi Litekyan: Save Ritidian ("Prutehi Litekyan") complains of defendants United States Department of the Air Force; Frank Kendall, in his official capacity as Secretary of the Air Force; United States Department of Defense; and Lloyd Austin, in his official capacity as Secretary of the Department of Defense (collectively, "Defendants") as follows:

INTRODUCTION

1. By this Complaint, Prutehi Litekyan seeks to compel Defendants to comply with the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321 *et seq.*, prior to conducting open burning and open detonation ("OB/OD") of hazardous waste munitions at the Explosive Ordnance Disposal Range ("EOD Range") on

Tarague Beach at Andersen Air Force Base ("AFB"), Guam.

2. On May 17, 2021, Andersen AFB submitted to the Guam Environmental Protection Agency ("Guam EPA") an application for a three-year renewal of its Hazardous Waste Management Facility Permit for OB/OD operations at the EOD Range. The application acknowledges that OB/OD operations may adversely affect culturally significant sites, the marine environment, groundwater quality, and endangered species, among other things. Despite these potential impacts, Andersen AFB failed to prepare any NEPA analysis to (1) take the requisite "hard look" at the environmental impacts of the proposed OB/OD operations, (2) consider a reasonable range of environmentally preferred alternatives, including the "no action" alternative, and (3) provide opportunities for public comment on the proposed OB/OD operations and reasonable alternatives, in violation of NEPA.

3. The Air Force proposes to treat hazardous waste munitions at the EOD Range by blowing up waste munitions directly on the sand and burning waste munitions in the open air. By definition, *open* burning and *open* detonation both release the toxic by-products of burning and detonation—and sometimes unexploded ordnance—directly into the surrounding environment.

Detonation of M117 Bomb at EOD Range, Andersen AFB (Apr. 5, 2002), *available at* https://catalog.archives.gov/id/6627544 (last visited January 23, 2022)

4. The EOD Range sits above the island's sole-source aquifer and is immediately adjacent to the Pacific Ocean and near culturally significant fishing locations—on which local families depend for food—and sites for collecting traditional medicine. The beach where the EOD range is located is nesting habitat for the endangered green sea turtle (*Chelonia mydas*), and migratory birds frequent the EOD Range.

5. The EOD Range sits on ancestral land that the military seized from local families after World War II. OB/OD operations could permanently contaminate the area with toxic chemicals and unexploded ordnance, effectively precluding the return of these lands to the original owners.

6. Allowing Defendants to proceed with renewal of the hazardous waste permit for OB/OD operations at Andersen AFB, without an analysis of the environmental impacts and alternatives, would violate NEPA's fundamental purpose to "ensure Federal agencies consider the environmental impacts of their actions in the decision-making process." 40 C.F.R. § 1500.1(a).

JURISDICTION AND VENUE

7. The Court has subject matter jurisdiction over the claims for relief in this action pursuant to 5 U.S.C. §§ 701-706 (actions under the Administrative Procedure Act ("APA")); 28 U.S.C. § 1331 (actions arising under the laws of the United States); 28 U.S.C. § 1361 (actions to compel an officer of the United States to perform his duty); and 28 U.S.C. §§ 2201-02 (power to issue declaratory judgments in cases of actual controversy).

8. Venue lies properly in this judicial district by virtue of 28 U.S.C. § 1391(e)(1) because this is a civil action in which officers or employees of the United States or an agency thereof are acting in their official capacity or under color of legal authority, a substantial part of the events or omissions giving rise to the claims occurred in this judicial district, and Plaintiff resides here.

PARTIES

Plaintiff

9. Plaintiff Prutehi Litekyan: Save Ritidian is a non-profit corporation based in Guam. Its mission is to protect natural and cultural resources in all sites identified for military live-fire training in Guam for the well-being of the people and future generations of Guam. Prutehi Litekyan seeks to prevent environmental deg-

radation and destruction on sacred and native lands and is dedicated to the return of ancestral lands to their original owners.

10. Prutehi Litekyan engages with the community in Guam to promote the protection of the island's sole-source aquifer, sacred sites and ancestral remains, and access to family and ancestral lands. Prutehi Litekyan also advocates for the protection of environmental and cultural resources, including, but not limited to, endangered species, traditional fishing sites, and sites for cultivating and gathering traditional medicines. Prutehi Litekyan's mission includes protection of these resources from adverse impacts resulting from Department of Defense ("DOD") activities and operations.

11. Prutehi Litekyan conducts research and carries out public education efforts on these issues to help the community become better informed to participate in local and national processes regarding DOD activities and operations that may be harmful to Guam. Prutehi Litekyan also educates community leaders to encourage development of policies that prevent environmental degradation and ancestral desecration resulting from DOD activities and operations.

12. In response to the proposed OB/OD operations at the EOD Range on Andersen AFB, Prutehi Litekyan and its members have continued to advocate for the protection of Guam's cultural and natural resources and ancestral lands. In October 2021, Prutehi Litekyan submitted a letter to the Guam EPA Administrator, urging the agency to deny Andersen AFB's application for renewal of the hazardous waste permit for OB/OD operations at the EOD Range. Among other things, Prutehi Litekyan pointed to the harm that OB/OD activities

would cause to land and water along the northern coastline, including the island's sole-source aquifer.

13. Prutehi Litekyan's members have cultural, social, spiritual, health, professional, scientific, recreational, aesthetic, economic, and other interests in the preservation of the cultural and natural resources in and around the EOD Range.

14. Prutehi Litekyan's members include the family of original, indigenous owners of land that was seized by the U.S. military following World War II, including land near to the EOD Range. They also include current owners of land along the northern coast of Guam. Prutehi Litekyan's members are concerned that OB/OD operations will permanently contaminate the ancestral lands that they are actively advocating to be returned to their families. The proposed OB/OD operations would harm their cultural, spiritual, recreational, aesthetic, economic, and other interests in their ancestral land.

15. Prutehi Litekyan's members frequently spend time on Tarague Beach, including at the Sirena Beach Pavilion, and intend to continue to use and enjoy the beach in the future. They are concerned that OB/OD activities on Tarague Beach will contaminate the sacred land and water where they and their families go for recreational, cultural, spiritual, and aesthetic purposes. They also are concerned that contamination of the ocean from toxic by-products of OB/OD and unexploded ordnance will threaten the health of the members and their families. Further, the explosions, smoke, and noise from OB/OD operations will interfere with Prutehi Litekyan's members' use and enjoyment of the area.

16. Prutehi Litekyan's members include fishers who regularly rely on culturally significant fishing sites in

the ocean adjacent to the EOD Range to harvest food for their families and intend to continue using these fishing sites in the future. They are concerned that OB/OD activities will contaminate the waters where they fish with toxic by-products of OB/OD and unexploded ordnance, thereby threatening these culturally significant sites and their health. Further, during open burning and open detonation, Prutehi Litekyan's members would be prohibited from accessing traditional fishing sites that are within the 2,400 foot-radius safety zone proposed for OB/OD operations. The proposed OB/OD operations would harm these members' cultural, recreational, health, aesthetic, and other interests in fishing near the OB/OD area.

17. Prutehi Litekyan's members include wildlife biologists in Guam who conduct research on the island's endangered green sea turtles. They are concerned that impacts from OB/OD activities, including, but not limited to, shockwaves from explosions on the beach where the turtles nest and contamination of the marine environment, will harm the turtles and thus harm the members' professional and scientific interest in studying the species.

18. The aforementioned cultural, social, spiritual, health, professional, scientific, recreational, aesthetic, economic, and other interests of Prutehi Litekyan and its members in Guam will be adversely affected and irreparably injured by the proposed OB/OD operations at the EOD Range on Andersen AFB. Prutehi Litekyan and its members will suffer these irreparable unless Defendants revisit their decision to seek renewal of the Hazardous Waste Management Facility Permit for OB/OD operations at the EOD Range based on environmental review that complies fully with NEPA, including

consideration of the impacts of Defendants' proposed action and reasonable alternatives that could accomplish Defendants' goals with less environmental harm.

Defendants

19. Defendant United States Department of the Air Force is an agency of the United States Department of Defense. The Air Force is responsible for complying with NEPA prior to making decisions regarding treatment of hazardous waste at Andersen AFB.

20. Defendant Frank Kendall is sued in his official capacity as Secretary of the Air Force and is the highest-ranking official within the United States Department of the Air Force.

21. Defendant United States Department of Defense is the federal agency with ultimate responsibility for implementing and enforcing compliance with provisions of law that have been violated as alleged in this Complaint.

22. Defendant Lloyd Austin is sued in his official capacity as the Secretary of the Department of Defense.

STATUTORY AND REGULATORY FRAMEWORK

Purpose of NEPA and Obligation to Prepare a NEPA Analysis

23. Congress enacted the National Environmental Policy Act "to ensure Federal agencies consider the environmental impacts of their actions in the decision-making process." 40 C.F.R. § 1500.1(a). "Simply by focusing the agency's attention on the environmental consequences of a proposed project, NEPA ensures that important effects will not be overlooked or underestimated only to be discovered after resources have been

committed or the die otherwise cast." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). Compliance with NEPA prior to taking a proposed action is necessary to achieve Congress' declared purpose to "encourage productive and enjoyable harmony between man and his environment" and "to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man." 42 U.S.C. § 4321.

24. The Council on Environmental Quality ("CEQ") has promulgated rules implementing NEPA that apply to all federal agencies, including the Air Force. 40 C.F.R. § 1500.3(a); *see generally* 40 C.F.R. subch. A. In addition, the Air Force has promulgated its own rules "to achieve and maintain compliance with NEPA and the [CEQ] Regulations" for implementing NEPA. 32 C.F.R. § 989.1(b); *see generally* 32 C.F.R. pt. 989.

25. NEPA's policy goals are "realized through a set of 'action-forcing' procedures that require that agencies take a '"hard look" at environmental consequences' . . . and that provide for broad dissemination of relevant environmental information." *Robertson*, 490 U.S. at 350 (quoting *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976)).

26. NEPA requires federal agencies to prepare an environmental impact statement ("EIS") for all "major federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). "*Major Federal action* or *action* means an activity or decision subject to Federal control and responsibility" and "may include new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by Federal agencies."

40 C.F.R. § 1508.1(q)(2). The term "*[h]uman environment* means comprehensively the natural and physical environment and the relationship of present and future generations of Americans with that environment." *Id.* § 1508.1(m). "*Effects* or *impacts* means changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives." *Id.* § 1508.1(g). "Effects include ecological, . . . aesthetic, historic, cultural, economic, . . . social, or health effects. *Id.* § 1508.1(g)(1).

27. When an agency does not know whether the effects of its action will be "significant," it may prepare an environmental assessment ("EA") to help make that determination. *Id.* § 1501.5(a). "[I]f the agency determines, based on the [EA], not to prepare an [EIS] because the proposed action will not have significant effects," then the agency must prepare a "finding of no significant impact" ("FONSI"). *Id.* § 1501.6(a). If the EA indicates that the federal action "[i]s likely to have significant effects," the agency must prepare an EIS. *Id.* § 1501.3(a)(3).

28. Agencies must identify in their NEPA regulations "categories of actions that normally do not have a significant effect on the human environment, and therefore do not require preparation of an [EA] or [EIS]." *Id.* § 1501.4(a). To invoke a categorical exclusion, the agency must make an express determination that "a categorical exclusion identified in its agency NEPA procedures covers [the] proposed action." *Id.* § 1501.4(b). Moreover, prior to relying on a categorical exclusion, the agency must "evaluate the action for extraordinary circumstances in which the normally excluded action may have a significant effect" and thus require an EA

or EIS. *Id.*; *see also* 32 C.F.R. pt. 989, app. B at A2.2 ("Circumstances may arise in which usually categorically excluded actions may have a significant environmental impact and, therefore, may generate a requirement for further environmental analysis.").

29. NEPA mandates that agencies "'consider every significant aspect of the environmental impact of a proposed action'" and "take a 'hard look' at [those] environmental consequences ***before*** taking a major action." *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983) (citations omitted; emphasis added). The Air Force's NEPA regulations further provide that "Air Force personnel will . . . [r]eview the specific alternatives analyzed in the [environmental impact analysis process] when evaluating the proposal ***prior to*** decisionmaking." 32 C.F.R. § 989.4(d) (emphasis added). Additionally, "[e]ach office, unit, single manager, or activity at any level that initiates Air Force actions is responsible for . . . ensuring that, until the [environmental impact analysis process] is complete, resources are not committed prejudicing the selection of alternatives nor actions taken having an adverse environmental impact or limiting the choice of reasonable alternatives." *Id.* § 989.3(d)(3).

Required Scope of NEPA Analysis

30. An EA is a concise document that must "[b]riefly discuss the purpose and need for the proposed action, alternatives as required by section 102(2)(E) of NEPA, and the environmental impacts of the proposed action and alternatives, and include a list of agencies and persons consulted." 40 C.F.R. § 1501.5(c)(2). The Air Force's NEPA regulations specify that alternatives considered must include the "no action" alternative." 32

C.F.R. § 989.14(d). The EA also must "[b]riefly provide sufficient evidence and analysis for determining whether to prepare an [EIS] or a [FONSI]." 40 C.F.R. § 1501.5(c)(1). "Every EA must lead to either a FONSI, a decision to prepare an EIS, or no action on the proposal." 32 C.F.R. § 989.14(a).

31. An EIS must discuss "(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." 42 U.S.C. § 4332(2)(C).

32. The EIS must "provide full and fair discussion of significant environmental impacts and [must] inform decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. In the alternatives section, the EIS must "[d]iscuss each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits." *Id.* § 1502.14(b). Alternatives analyzed must "[i]nclude the no action alternative." *Id.* § 1502.14(c). Air Force NEPA regulations specify that the Air Force must "analyze reasonable alternatives to the proposed action and the 'no action' alternative in all EAs and EISs, as fully as the proposed action alternative." 32 C.F.R. § 989.8(a).

33. "The statutory requirement that a federal agency contemplating a major action prepare . . . an envi-

ronmental impact statement serves NEPA's 'action-forcing' purpose in two important respects." *Robertson*, 490 U.S. at 349 (internal citations omitted). First, "[i]t ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts." *Id.* Second, "it also guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision." *Id.*

Public Involvement in NEPA Process

34. Preparing an EA or EIS provides important opportunities for public involvement in federal agency decision-making, and NEPA commands federal agencies to "[p]rovide public notice of NEPA-related hearings, public meetings, and other opportunities for public involvement, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected by their proposed actions." 40 C.F.R. § 1506.6(b).

35. "NEPA's public comment procedures are at the heart of the NEPA review process." *State of Cal. v. Block*, 690 F.2d 753, 770-71 (9th Cir. 1982). "This reflects the paramount Congressional desire to internalize opposing viewpoints into the decision-making process to ensure that an agency is cognizant of all the environmental trade-offs that are implicit in a decision." *Id.* at 771. "To effectuate this aim, NEPA requires not merely public notice, but public participation in the evaluation of the environmental consequences of a major federal action." *Id.*

36. "As soon as practicable after determining that a proposal is sufficiently developed to allow for meaningful public comment and requires an [EIS]," an agency must publish in the Federal Register a Notice of Intent to prepare an EIS. 40 C.F.R. § 1501.9(d). After publishing the notice, an agency normally must invite the public to participate in "scoping," which is "an early and open process to determine the scope of issues for analysis in an [EIS], including identifying the significant issues and eliminating from further study non-significant issues." *Id.* § 1501.9(a); *see also id.* § 1501.9(b).

37. The agency then prepares a draft EIS "in accordance with the scope decided upon in the scoping process" and circulates the draft EIS for public review. *Id.* § 1502.9(b); *see also id.* § 1502.20. The agency must seek public comments on the draft EIS, "affirmatively soliciting comments in a manner designed to inform those persons or organizations who may be interested in or affected by the proposed action." *Id.* § 1503.1(a)(2)(v).

38. The agency must "consider substantive comments timely submitted during the public comment period" and respond to these comments in the final EIS. *Id.* § 1503.4(a); *see also id.* § 1502.9(c). "In the final [EIS], the agency may respond by:"

(1) Modifying alternatives including the proposed action.

(2) Developing and evaluating alternatives not previously given serious consideration by the agency.

(3) Supplementing, improving, or modifying its analysis.

(4) Making factual corrections.

(5) Explaining why the comments do not warrant further agency response, recognizing that agencies are not required to respond to each comment."

Id. § 1503.4(a).

39. Agencies also must "involve the public, State, Tribal, and local governments, relevant agencies, and any applicants, to the extent practicable in preparing environmental assessments." 40 C.F.R. § 1501.5(e); *see also* 32 C.F.R. § 989.14(l) ("The Air Force will involve other federal agencies, state, Tribal, and local governments, and the public in the preparation of EAs").

FACTUAL BACKGROUND

OB/OD Operations at Andersen Air Force Base

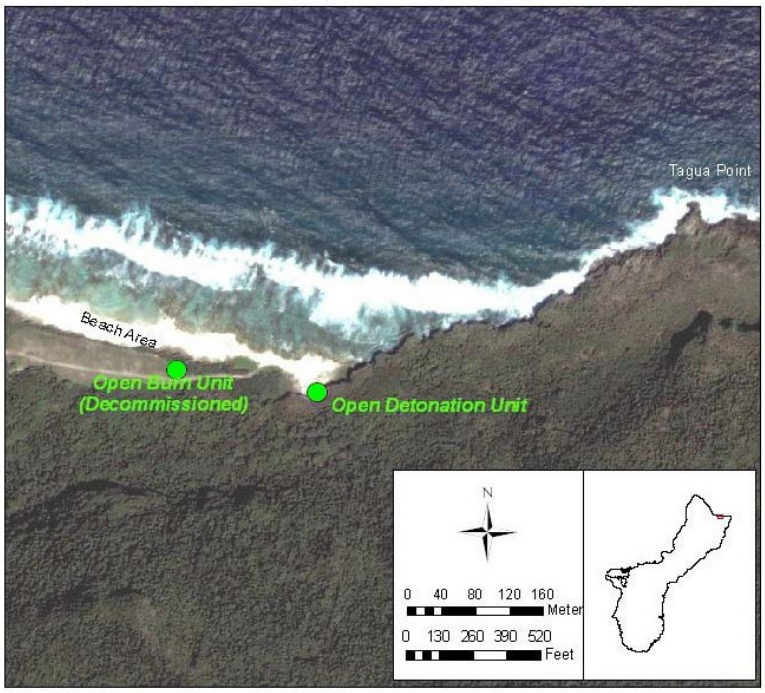
40. In its May 17, 2021, application to renew its Hazardous Waste Management Facility Permit, Andersen AFB proposes to open detonate approximately 30,000 pounds and open burn approximately 5,000 pounds of hazardous waste munitions each year at the EOD Range. The range is located on Tarague Beach, just before Tagua Point, and is defined as "the open beach area bounded by the Pacific Ocean to the north and the jungle and/or limestone to the east, south, and west."

41. The Air Force proposes to open detonate hazardous waste in two pits at the eastern edge of Tarague Beach. Open detonation operations consist of placing hazardous waste munitions directly on the sand, adding an explosive charge to detonate the waste munitions (if required) and an igniter to initiate the detonator, and then setting off the detonation from a personnel bunker.

42. The Air Force also proposes to open burn hazardous waste on Tarague Beach near the open detona-

tion pits at a location that is only about 80 feet from the jungle and 150 to 190 feet from the Pacific Ocean. While the Air Force's permit renewal application does not detail with specificity the "metallic containment device" proposed for open burning operations, the DOD defines open burning as an "open-air combustion process by which excess, unserviceable, or obsolete munitions are destroyed." Prior to going inactive nearly two decades ago, open burning operations at Andersen AFB consisted of putting wood in a "burn kettle" (a former aboveground fuel storage tank that was cut in half and placed on end, so that it was open to the air), adding waste munitions, placing a remote-controlled ignition device, pouring ten to twenty gallons of diesel fuel into the burn kettle, and then remotely activating the ignition device from a personnel bunker.

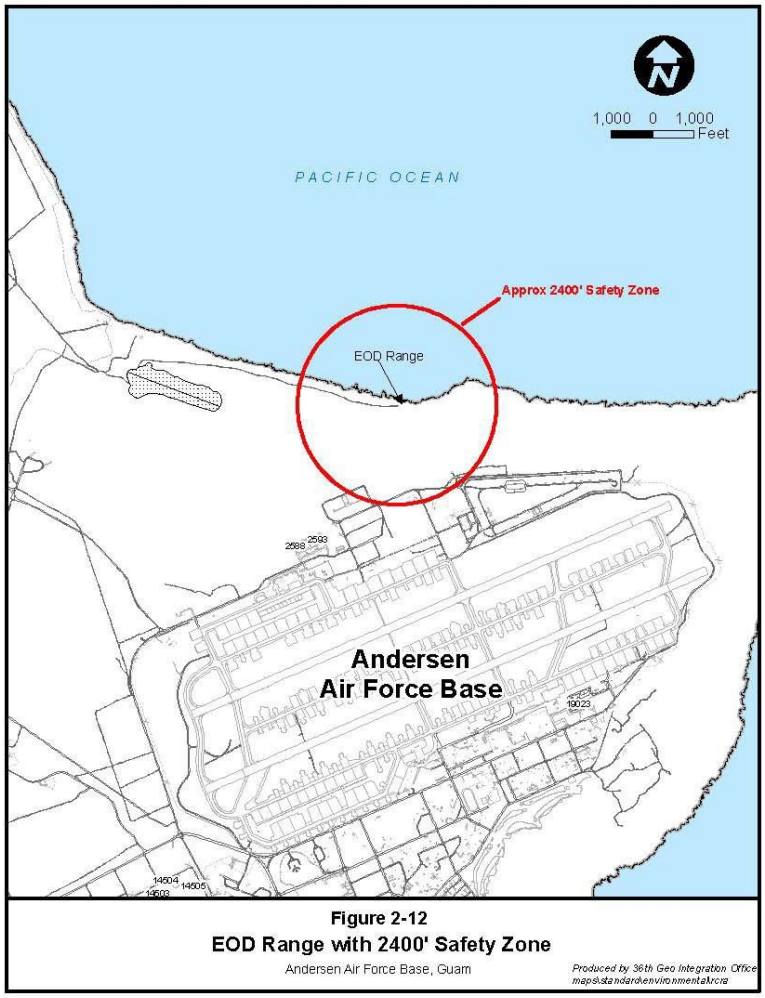
Figure 1-1: Location Map of OB/OD Range, AAFB, Guam



Appendix M to Andersen AFB Application for
Hazardous Waste Management Facility Permit

43. The Air Force seeks to "open burn/open detonate at the OB/OD unit hazardous wastes . . . that consist of common military ordnance material (such as black powder, white/red phosphorus, tear gas, ammunitions, propellants, and explosive materials)."

44. Because of the inherent hazards associated with OB/OD, a 2,400 foot-radius safety zone surrounds the EOD Range, extending into the adjacent reef and ocean.



Appendix G to Anderson AFB Application for Hazardous Waste Management Facility Permit

45. Andersen AFB first received a Hazardous Waste Management Facility Permit for its OB/OD operations at the EOD Range in 1982. Every three years since then, the Air Force has applied to renew this permit,

and the Guam EPA has approved each of those permit renewals. Although open detonation has been occurring under each permit renewal, open burning operations have been inactive since at least before May 2002. The burn kettle previously used for open burning is not operational due to severe corrosion, and the Air Force proposes to construct a new device to restart open burning operations.

OB/OD Operations Have the Potential for Significant Impacts

46. Andersen AFB's application to renew the Hazardous Waste Management Facility Permit for OB/OD operations at the EOD Range acknowledges the potential for impacts to the human environment. For example, the application states that "[t]he Permittee shall construct, maintain, and operate the facility to ***minimize the possibility*** of an unplanned fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment," but notably does not claim that these adverse environmental impacts can be eliminated. (Emphasis added). On the contrary, the application acknowledges that "[p]revious DOD studies of open burning units on the ground that had been operating a number of years have shown that contaminated soils and residues were present in the immediate vicinity of the OB unit."

47. The application notes that "[t]he nature of OB/OD [hazardous waste] treatment on the EOD Range does not provide for procedures to minimize releases to the atmosphere" and that it is not possible to "completely prevent the ejection of wastes," such as ash and other residue, during open burning.

48. During open burning operations, fuel could spill directly on the beach, and the application acknowledges the possible need for an environmental response that would be beyond the capabilities of EOD personnel, requiring activation of the Base environmental spill team by the Fire Department.

49. The application acknowledges the potential for OB/OD operations to contaminate the shallow, unconfined aquifer beneath the EOD Range, which supplies more than eighty percent of Guam's population with drinking water. Further, OB/OD operations could release contaminants into the adjacent Pacific Ocean and reef, threatening the health of local families that recreate at Tarague Beach and fish near the reef. Portions of the EOD Range also are susceptible to flooding during typhoons or from tidal waves, and unexploded ordnance and fragments of hazardous waste munitions could be washed into the ocean.

50. OB/OD operations at the EOD Range present potential fire hazards, including uncontrolled fires. The application notes that "[f]ires involving explosives are extremely dangerous and can react in an unpredictable manner," and "[s]ome explosives exposed to fire will burn, detonate, or a combination of both."

51. The application acknowledges potential hazards from OB/OD operations that could remain at the EOD Range long after its closure. For example, "[i]f buried [unexploded ordnance] cannot be removed or disposed of safely, it will remain in place" and a deed restriction will be placed on the property. The application further notes the potential for contamination with hazardous chemicals. Continued OB/OD operations at the EOD Range could cause permanent contamination of the area

and jeopardize the return of these ancestral lands to the indigenous families that previously owned them.

52. The application acknowledges the potential impacts to imperiled species from OB/OD operations at the EOD Range, such as the endangered green sea turtles that nest on "[t]he beach adjacent to the OB/OD area." Explosions from OB/OD operations would subject endangered turtles' nests and the eggs they contain to ground shocks. The blasts from OB/OD also would threaten migratory seabirds that are frequently observed foraging and resting within the EOD Range, including the Common Sandpiper (*Actitis hypoleucos*), Ruddy Turnstone (*Arenaria interpres*), Pacific Golden Plover (*Pluvialis fulva*), Wandering Tattler (*Tringa incana*), and the Wedge-tailed Shearwater (Puffinus pacificus). The application acknowledges the potential for OB/OD activities to kill or injure migratory birds.

Alternatives to OB/OD to Treat Hazardous Waste Munitions

53. There are several alternative technologies available to treat hazardous waste munitions at Andersen AFB that would be less harmful to the human environment than OB/OD. In 2019, the National Academies of Sciences, Engineering, and Medicine ("NAS") published a report on "Alternatives for the Demilitarization of Conventional Munitions." In that report, the NAS concluded that "[v]iable alternative technologies exist within the demilitarization enterprise . . . for almost all munitions currently being treated within the DOD conventional munitions demilitarization stockpile via OB/OD." Further, "there are no significant technical, safety, or regulatory barriers to the full-scale deployment of alternative technologies for the demilitarization

of the vast majority of the conventional waste munitions, bulk energetics, and associated wastes." Prutehi Litekyan is informed and believes, and on the basis therefor alleges, that the NAS determined that alternative technologies are suitable to treat the types of munitions that Defendants seek to treat with OB/OD at Andersen AFB.

54. The NAS concluded that, as compared to OB/OD, all the alternative technologies it reviewed would have "lower emissions and less of an environmental and public health impact."

55. Also in 2019, the U.S. EPA published a report on "Alternative Treatment Technologies to Open Burning and Open Detonation of Energetic Hazardous Wastes," which concluded that "safe alternatives exist and are being used to divert energetic hazardous wastes away from OB/OD." The U.S. EPA further stated that it "seeks to promote the development, testing, and use of alternative technologies that are capable of safely treating munitions and other explosive waste in a manner that reduces the potential for exposure and environmental contamination, as well as keeping cleanup and closure obligations to a minimum."

Defendants' Failure to Conduct NEPA Analysis for OB/OD Operations at Andersen AFB

56. Plaintiff Prutehi Litekyan is informed and believes, and on the basis therefor alleges, that, prior to making a decision to seek renewal of the Hazardous Waste Management Facility Permit for OB/OD operations at Andersen AFB and submitting their application to the Guam EPA on May 17, 2021, Defendants (1) did not make an express finding that any categorical exclusion covers the proposed action; and (2) did not consider

whether extraordinary circumstances exist that would preclude application of a categorical exclusion.

57. Plaintiff Prutehi Litekyan is further informed and believes, and on the basis therefor alleges, that, prior to making a decision to seek renewal of the Hazardous Waste Management Facility Permit for OB/OD operations at Andersen AFB and submitting their application to the Guam EPA on May 17, 2021, Defendants did not prepare an EA or EIS that (1) takes the requisite "hard look" at the environmental impacts of the proposed OB/OD operations, (2) considers a reasonable range of alternatives, including the "no action" alternative, and (3) provides opportunities for public comment on the proposed operations and reasonable alternatives.

CLAIM FOR RELIEF

(VIOLATIONS OF NATIONAL ENVIRONMENTAL POLICY ACT AND ADMINISTRATIVE PROCEDURE ACT—FAILURE TO PREPARE AN ENVIRONMENTAL ASSESSMENT OR ENVIRONMENTAL IMPACT STATEMENT)

58. Plaintiff Prutehi Litekyan realleges and incorporates herein by reference each and every allegation contained in all preceding paragraphs of this Complaint.

59. Defendants Department of Defense and Department of the Air Force are "agencies of the Federal Government" and, therefore, must comply with NEPA. 42 U.S.C. § 4332(2).

60. Defendants' decision to submit an application on May 17, 2021, seeking a three-year renewal of the Hazardous Waste Management Facility Permit to conduct OB/OD operations at Andersen AFB constitutes "major

Federal action" for purposes of NEPA because it is an "activity or decision subject to Federal control and responsibility," including "new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by Federal agencies." 40 C.F.R. § 1508.1(q)(2).

61. Plaintiff Prutehi Litekyan is informed and believes, and on the basis therefor alleges, that, prior to making a decision to seek renewal of the Hazardous Waste Management Facility Permit for OB/OD operations at Andersen AFB and submitting their application to the Guam EPA on May 17, 2021, Defendants failed to prepare an EA or EIS that (1) takes the requisite "hard look" at the environmental impacts of the proposed OB/OD operations, (2) considers a reasonable range of alternatives, including the "no action" alternative, and (3) provides opportunities for public comment on the proposed operations and reasonable alternatives.

62. Defendants' decision to submit the May 21, 2021 application for renewal of the Hazardous Waste Management Facility Permit for OB/OD operations at Andersen AFB without first preparing a legally adequate EA or EIS violates NEPA and the CEQ and Air Force regulations implementing NEPA.

63. Defendants' decision to submit the May 21, 2021 application for renewal of the Hazardous Waste Management Facility Permit for OB/OD operations at Andersen AFB without first preparing a legally adequate EA or EIS was arbitrary, capricious, an abuse of discretion, not in accordance with law, and/or without observance of procedure required by law within the meaning of the APA, 5 U.S.C. § 706(2).

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Prutehi Litekyan respectfully requests that the Court:

64. Enter a declaratory judgment that Defendants have violated and are violating NEPA, the CEQ and Air Force regulations implementing NEPA, and the APA by making a decision to seek renewal of the Hazardous Waste Management Facility Permit for OB/OD operations at Andersen AFB without first preparing an EA or EIS that (1) takes the requisite "hard look" at the environmental impacts of the proposed OB/OD operations, (2) considers a reasonable range of alternatives, including the "no action" alternative, and (3) provides opportunities for public comment on the proposed operations and reasonable alternatives.

65. Grant preliminary and permanent injunctive relief to ensure that Defendants fully comply with NEPA, its implementing regulations, and the APA and to avoid irreparable harm to Plaintiff and Guam's environment until such compliance occurs, including, but not limited to:

a. Compelling Defendants promptly to withdraw their pending application for a Hazardous Waste Management Facility Permit for OB/OD operations at Andersen AFB; and

b. Enjoining Defendants from (i) resubmitting a permit application to the Guam EPA and/or (ii) carrying out any OB/OD activities at Andersen AFB for the duration of Defendants' noncompliance.

66. Retain continuing jurisdiction to review Defendants' compliance with all judgments and orders entered herein.

67. Award Plaintiffs costs of litigation, including reasonable attorneys' fees; and

68. Grant such other and further relief as the Court may deem just and proper to effectuate a complete resolution of the legal disputes between Plaintiff and Defendants.

Dated this 25th day of January, 2022.

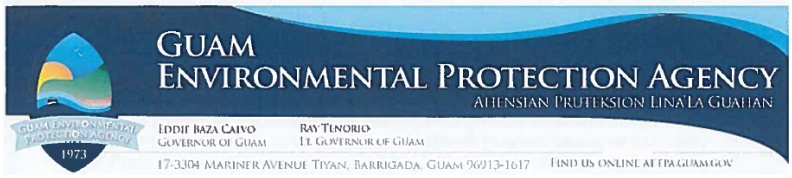
Respectfully submitted,

/s/ DAVID L. HENKIN
DAVID L. HENKIN (HSBA #6876)
[*Pro Hac Vice* Admission Forthcoming]
THIEN T. CHAU (CSBA #330315)
[*Pro Hac Vice* Admission Forthcoming]
EARTHJUSTICE

Attorneys for Plaintiff Prutehi Litekyan: Save Ritidian

/s/ RACHEL M. TAIMANAO-AYUYU
RACHEL M. TAIMANAO-AYUYU (GBA #07097)
THE LAW OFFICE OF RACHEL TAIMANAO-AYUYU

Local Counsel for Plaintiff Prutehi Litekyan: Save Ritidian



Sept. 05, 2018

Brigadier General Gentry W. Boswell
Installation Commander
Andersen AFB, Guam
Unit 14003
APO AP 96543-4003

RE: Resource Conservation and Recovery Act Permit for Andersen Air Force Base Hazardous Waste Management Facility, Permit Number GUS002

Hafa Adai General Boswell:

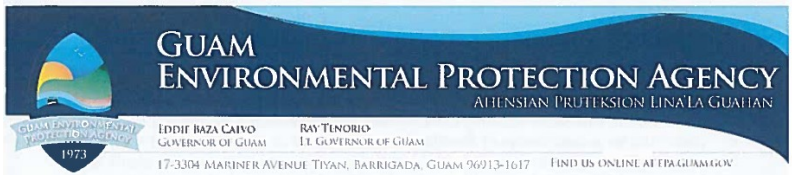
This letter is to officially notify you that the Guam Environmental Protection Agency has approved the Resource Conservation and Recovery Act (RCRA) Permit for Andersen Air Force Base Hazardous Waste Management Facility, Permit Number GUS002, Facility Identification Number GU65999519 located in Yigo, Guam.

A copy of the permit authorization and permit is enclosed for your information and distribution. Should you have any questions concerning the technical aspects of this letter and enclosure, please contact Vincent J. Pereira or Don Quinata at 300-4751/2.

Sincerely,

/s/ [ILLEGIBLE]
[FOR] Walter S. Leon Guerrero
Administrator

cc: Mr. Carl Goldstein, USEPA Region 9, Guam Program Manager



GUAM ENVIRONMENTAL PROTECTION AGENCY PERMIT FOR A HAZARDOUS WASTE MANAGEMENT FACILITY

Permittee:	Andersen Air Force Base
Facility Identification Number:	GU6571999519
Permit Number:	GUS002
Expiration Date:	September 3, 2021

This permit is issued by the Guam Environmental Protection Agency (Guam EPA) under the authority of Guam's Solid Waste Management and Litter Control Act (10 Guam Code Annotated, Chapter 51) and pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 USC 6901 et seq., commonly known as RCRA), the Hazardous and Solid Waste Amendments of 1984 (HSWA), and Guam's Hazardous Waste Management Regulations (GHWMRs) promulgated thereunder Guam EPA, as well as regulations promulgated thereunder by the United States Environmental Protection Agency (USEPA) (codified and to be codified in Title 40 of the Code of Federal Regulations).

This Permit is issued to Andersen Air Force Base (hereafter called the Permittee), to operate a hazardous waste treatment facility located in Yigo, Guam. The facility, also known as the Explosive Ordnance Disposal (EOD) Range, is located within the boundaries of the Air Force Base at the extreme reach of Tarague Beach

ending just before Tagua Point. The coordinates for the Open Detonation Unit is at latitude 13°34'13"N and longitude 144°54'34"E. Andersen Air Force Base is a federal installation in Guam that is currently the home of the Pacific Air Force 36th Wing.

The hazardous waste management unit authorized by this Permit is the open burning/open detonation unit (hereafter called OB/OD unit) that is used to treat hazardous wastes that are reactive (0003) and/or Toxicity Characteristic Leaching Procedure (TCLP) toxic hazardous wastes under Guam EPA and USEPA Region IX's regulations. The hazardous wastes include waste munitions and waste explosives. This Permit requires that the Permittee conduct site monitoring for ground water beneath the unit and a mitigation plan to protect biological receptors during the OB/OD operations. The Permittee has not conducted OB activities for several years and the OB unit is in a non-operational condition. This Permit also requires the Permittee to undertake a schedule of improvements to upgrade the open burning components of the OB/OD unit before resuming OB activities. The Permittee has submitted a plan that would call for a clean closure of the OB/OD unit at the end of its useful life. This Permit requires preparation and submittal of a contingent post-closure care plan that would be implemented in the event the Permittee cannot clean-close the unit at the end of its useful life.

This Permit is based on the information submitted in the Part B Permit Application attached to the Permittee's letter dated April 6, 2018 (hereafter referred to as the Application), and that the facility will be operated as specified in the Application, and any approved revisions hereto. Any inaccuracies found in the submitted information may be grounds for the termination, revo-

cation and re-issuance, or modification of this Permit in accordance with Part X.A. [Adopts by reference 40 CFR 270.41, 270.42 and 270.43] of the GHWMRs and for enforcement action. The Permittee must inform Guam EPA of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with applicable regulations or permit conditions.

This Permit is effective as of September 4, 2018, and shall remain in effect until September 3, 2021, unless revoked and reissued under Part X.A. [Adopts by reference 40 CFR 270.41] of the GHWMRs, terminated under Part X.A. [Adopts by reference 40 CFR 270.43] of the GHWMRs, or continued in accordance with Part X.A. [Adopts by reference 40 CFR 270.51(a)] of the GHWMRs.

/s/ [ILLEGIBLE] [09 04 2018]
[FOR] Walter S. Leon Guerrero Date
Administrator

ANDERSEN AIR FORCE BASE, GUAM

HAZARDOUS WASTE MANAGEMENT FACILITY PERMIT

Permit Number: GUS002

EXPLOSIVE ORDNANCE DISPOSAL
OPEN BURN/OPEN DETONATION FACILITY

GUAM ENVIRONMENTAL PROTECTION AGENCY
1973

TODO Y NILALA Y TANO MAN UNO
ALL LIVING THINGS OF THE EARTH ARE ONE

OMB# 2050-0024; Expires 05/31/2020

Guam Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (Select only one.)

☐	Obtaining or updating an EPA ID number for an on-going regulated activity that will continue for a period of time. (Includes HSM activity)
☐	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
	☐ Site was a TSD facility and/or generator of > 1,000 kg of hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations)
☐	Notifying that regulated activity is no longer occurring at this Site
☐	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
☑	Submitting a new or revised Part A Form

2. Site EPA ID Number

G	U	6	5	7	1	9	9	9	5	1	9

3. Site Name

Andersen Air Force Base

4. Site Location Address

Street Address **Explosive Ordnance Disposal Range, Tarague Beach**		
City, Town, or Village **Yigo**		County
State **GU**	Country **United States**	Zip Code **96543**

5. Site Mailing Address ☐ Same as Location Address

Street Address **36th Wing, Unit 14003**		
City, Town, or Village **Yigo**		
State **GU**	Country **United States**	Zip Code **96543-4003**

6. Site Land Type

☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary) **928110**	C.
B. **493910**	D.

EPA ID Number | G | U | 6 | 5 | 7 | 1 | 9 | 9 | 9 | 5 | 1 | 9 | OMB# 2050-0024; Expires 05/31/2020

8. Site Contact Information ☐ Same as Location Address

First Name **Thomas**	MI	Last Name **Spriggs**
Title **Chief, Environmental Flight**		
Street Address **36 CES/CEV Unit 14007**		
City, Town, or Village **Yigo**		
State **GU**	Country **United States**	Zip Code **96543-4007**
Email **thomas.spriggs@us.af.mil**		
Phone **(671) 366-2556**	Ext	Fax

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner ☐ Same as Location Address

Full Name United States Navy	Date Became Owner (mm/dd/yyyy) 10/1/2009
Owner Type ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other	
Street Address 36th Wing, Unit 14003	
City, Town, or Village Yigo	
State GU / Country **United States** / Zip Code 96543-4003	
Email	
Phone 366-3600 / Ext / Fax	
Comments	

B. Name of Site's Legal Operator ☐ Same as Location Address

Full Name BRIGADIER GENERAL DOUGLAS A. COX	Date Became Operator (mm/dd/yyyy) 5/1/2016
Operator Type ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other	
Street Address **36th Wing, Unit 14003**	
City, Town, or Village **Yigo**	
State **GU** / Country **United States** / Zip Code **96543-4003**	
Email	
Phone **(671) 366-3600** / Ext / Fax	
Comments	

EPA ID Number | G | U | 6 | 5 | 7 | 1 | 9 | 9 | 9 | 5 | 1 | 9 | OMB# 2050-0024; Expires 05/31/2020

10. Type of Regulated Waste Activity (at your site)
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities

☑Y ☐N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c		
	☑	a. LQG	-Generates, in any calendar month (includes quantities imported by importer site) 100 kg/mo (220 lbs/mo) or more of non-acute hazardous waste; or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 50 kg /mo (110 lb /mo) of acute hazardous spill cleanup material.
	☐	b. SQG	50 to less than 100 kg/mo (110 -219 lbs/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
	☐	c. VSQG	Less than 50 kg/mo (110 lbs/mo) of non-acute hazardous waste.
If "Yes" above, indicate other generator activities in 2 and 3, as applicable.			
☐Y ☑N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.		
☐Y ☑N	3. Mixed Waste (hazardous and radioactive) Generator		
☑Y ☐N	4. Treater, Storer or Disposer of Hazardous Waste—Note: A hazardous waste Part B permit is required for these activities.		
☐Y ☑N	5. Receives Hazardous Waste from Off-site		
☐Y ☑N	6. Recycler of Hazardous Waste		
	☐	a. Recycler who stores prior to recycling	
	☐	b. Recycler who does not store prior to recycling	
☐Y ☑N	7. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.		
	☐	a. Small Quantity On-site Burner Exemption	
	☐	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

D003						

~~**C. Waste Codes for State-Regulated (non-Federal) Hazardous Wastes.** Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.~~ NOT APPLICABLE IN GUAM

* * * * *

EPA ID Number	G	U	6	5	7	1	9	9	9	5	1	9

OMB# 2050-0024; Expires 05/31/2020

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT PART A FORM

1. Facility Permit Contact

First Name	Thomas	MI	Last Name	Spriggs
Title	Chief, Environmental Flight			
Email	thomas.spriggs@us.af.mil			
Phone	(671) 366-2556	Ext	Fax	

2. Facility Permit Contact Mailing Address

Street Address	36 CES/CEV Unit 14007, Building 18001, Arc Light Boulevard		
City, Town, or Village	Yigo		
State	GU	Country United States	Zip Code 96543-4007

3. Facility Existence Date (mm/dd/yyyy)

10/30/1980

4. Other Environmental Permits

A. Permit Type	B. Permit Number	C. Description
		See attached sheets for list of permits.

5. Nature of Business

EPA ID Number G U 6 5 7 1 9 9 9 5 1 9 OMB# 2050-0024; Expires 05/31/2020

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity (1) Amount	B. Process Design Capacity (2) Unit of Measure	C. Process Total Number of Units	D. Unit Name
		X	0	1	0.05	N	001	
		X	0	1	0.30	N	001	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes (1) Process Codes							D. Processes (2) Process Description (if code is not entered in 7.D1)
	1	D	0	0	3	5000	P	X	0	1					Open Burn
	2	D	0	0	3	30,000	P	X	0	1					Open Detonation

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

Section 10, 11, and 12 are attached in Part B of this application.

* * * * *

SECTION I—GENERAL PERMIT CONDITIONS

* * * * *

I.B. PERMIT ACTIONS

* * * * *

I.B.2. Permit Renewal

This Permit may be renewed as specified in Part X.A. [Adopts by reference 40 CFR 270.30(b)] of the GHWMRs and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. Part X.A. [Adopts by reference 40 CFR 270.30(b), HSWA Section 212] of the GHWMRs.

* * * * *

I.E. DUTIES AND REQUIREMENTS

* * * * *

I.E.2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to Permit expiration. Part X.A. [Adopts by reference 40 CFR 270.10(h), 270.30(b)] of the GHWMRs.

I.E.3. Permit Expiration

Pursuant to Part X.A., and T. [Adopts by reference 40 CFR 270.50] of the GHWMRs, this Permit shall be effective for a fixed term of three (3) years as described under Part X.S. [Adopts by reference 40 CFR 270.50(a) as amended] of the GHWMRs. As long as Guam EPA

is the Permit issuing authority, this Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application (see Parts X. A, D, E, and F [adopts by reference 40 CFR 270.10, 270.13 through 270.29] of the GHWMRs and, if through no fault of the Permittee, the Administrator has not issued a new Permit, as set forth in Part X.A., and U. [Adopts by reference 40 CFR 270.51] of the GHWMRs.

* * * * *

SECTION III—TREATMENT OF REACTIVE WASTES

III.A. SECTION HIGHLIGHTS

Open burning and open detonation of waste ordnance materials occurs at the Explosive Ordnance Disposal (EOD) Range. The unit is located at the extreme eastern reach of Taragüe Beach, ending just before Tagua Point (Appendix H of the Permit). The grid coordinates for the Open Detonation unit is 13 degrees, 35.58 minutes north, 144 degrees, 56.48 minutes east. This area has been in constant use since its inception at least 20 years ago. Its mission is to render unserviceable ordnance and other pyrotechnic devices harmless by either suppressed detonation or open burning. In addition, the EOD range has been used for EOD training purposes and emergency purposes.

The EOD range is defined as the open beach area bounded by the Pacific Ocean to the north and the jungle and/or limestone to the east, south, and west. Surrounding the active treatment units is a 2,400 foot-radius safety zone, as defined by operational requirements.

The active detonation units are located at the extreme eastern edge of Tarague Beach. They consist of two (2) pits; each located directly along the face of the cliff. Detonation of the munitions at the cliff face directs the destructive force of the detonation away from the occupied areas. Open detonation operations consists of several steps, including properly placing: the waste munitions, an explosive charge to detonate the waste munitions (if required), and an igniter to initiate the detonator. Detonations are initiated from the personnel bunker.

The inactive open burning pit is located approximately 80 feet from the jungle and 180 feet from the Pacific Ocean, approximately midway east west in the EOD Range. Open burning was conducted in a burn kettle approximately four feet in diameter and five feet tall. The OB pit was roughly 45 feet long by 14 feet wide by 6 feet deep.

Open burning operations consists of placing dunnage (wood) in the burn kettle to provide access for combustion air, placing the waste munitions in the burn kettle, placing a remote-controlled ignition device, placing approximately ten (10) gallons of virgin diesel fuel in the burn kettle, then remotely activating the ignition device from the personnel bunker.

Facility Pictures and a topographic map of the EOD Range are attached in Appendix H of the Permit.

After review of the ecological risk assessment in the Permit application, the Administrator has concluded that the mortality of biological receptors has to be protected from OB/OD activities. Therefore, the Permittee is required to follow the Biological Mitigation Plan, Appendix L, as described in this Permit.

Currently, the OB unit burn kettle is non-operational due to severe corrosion and the unit has not been used for several years. Before any open burning activity is allowed under the permit, the unit must meet the design and operational specifications described in the permit application as adopted in this Permit.

The Permittee shall operate the OB/OD unit in accordance with the Waste Analysis Plan, Standard Operating Procedures, Residue Management Plan, Groundwater Monitoring Plan, and the Biological Mitigation Plan as described in the Permit.

III.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

III.B.1. The Permittee may open burn/open detonate at the OB/OD unit hazardous wastes (also referenced in this Permit as "reactive waste") that consist of common military ordnance material (such as black powder, white/red phosphorus, tear gas, ammunitions, propellants, and explosive materials).

The Permittee shall abide by the restrictions for treatment through OB/OD of RCRA Hazardous waste materials as described in Appendix I, of the Permit, "Open Burning/Open Detonation RCRA hazardous waste treatment waste materials restrictions".

III.B.2. The Permittee is prohibited from treating hazardous waste at the OB/OD unit that is not identified in Permit Condition III.B.1.

III.C. DESIGN, CONSTRUCTION, AND OPERATING REQUIREMENTS

III.C.1. Open Burning in a Containment Device

Open burning of the OB/OD unit shall be conducted pursuant to the information provided to meet design, construction, and operating requirements provided in the Process Information, the OB/OD Residue Management Plan, Flight Operating Instruction 32-3002 (FOI 32-3002), and the Biological Mitigation Plan (Appendix I, J, K and L of the Permit). The information addresses the following requirements:

III.C.1.a. The Permittee shall operate and maintain the open burning device in accordance with the Process Information, the OB/OD Residue Management Plan, FOI 32-3002, and the Biological Mitigation Plan (Appendix I, J, K and L of the Permit).

III.C.1.b. The Permittee shall design, construct, operate, and maintain a precipitation cover for the open burning tray(s) in accordance with the Procedures identified in Appendix I of the Permit.

III.C.1.c. The Permittee shall design, construct, operate, and maintain the open burning unit to minimize air emissions or exposure of people (onsite or offsite) to toxic or hazardous emissions in accordance with the Process Information, the OB/OD Residue Management Plan, FOI 32-3002, and the Biological Mitigation Plan (Appendix I, J, K and L of the Permit).

III.C.1.d. The Permittee shall provide guidance on how ash/residues from the open burning unit will be managed in accordance with the OB/OD Residue Management Plan (Appendix J of the Permit).

III.C.1.e. The Permittee shall follow the procedures for the protection of ecological receptors in accordance with the Biological Mitigation Plan in Appendix L of the Permit.

III.C.2. Open Detonation On/In the Ground

III.C.2.a. The Permittee shall operate and maintain the open detonation area at the OB/OD unit in accordance with the operating procedures, the Process Information, the OB/OD Residue Management Plan, FOI 32-3002, and the Biological Mitigation Plan (Appendix I, J, K and L of the Permit).

III.C.2.b. The Permittee shall operate and maintain the open detonation area to minimize air emissions or exposure of people (onsite or offsite) to toxic or hazardous emissions in accordance with the hazard prevention procedures Appendix I of the Permit.

III.C.2.c. The Permittee shall manage residues from open detonation in accordance with Appendix J of the Permit.

III.D. HANDLING REQUIREMENTS

The Permittee shall handle/manage reactive waste that will be treated at the OB/OD unit in accordance with the Process Information, OB/OD Residue Management Plan, and FOI 32-3002 (Appendix I, J and K of the Permit).

III.E. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the OB/OD unit in accordance with the inspection schedule set out in Appendix C of the Permit.

III.F. PREVENTION OF UNINTENDED IGNITION OR REACTION OF WASTES

The Permittee shall follow the procedures, contained in Appendix E of the Permit, designed to prevent unintended ignition or reaction of waste.

III.G. MONITORING REQUIREMENTS

The Permittee shall conduct ground water monitoring at the OB/OD unit in accordance with Permit Condition IV. In addition, the Permittee shall follow the appropriate monitoring procedures under the Biological Mitigation Plan (Appendix L).

III.H. FACILITY MODIFICATION/EXPANSION

III.H.1. Permit Modification

Guam EPA reserves the right to modify this Permit in accordance with Part X.A. (Adopts by reference 40 CFR 270.41) of the GHWMRs.

III.H.2. Permit Modification At The Request Of The Permittee

Modifications or expansions of the facility shall be accomplished in accordance with Part X.A. (Adopts by reference 40 CFR 270.42) of the GHWMRs.

III.I. CLOSURE AND CONTINGENT POST-CLOSURE

III.I.1. At final closure of the OB/OD unit, the Permittee shall follow the procedures in the Closure Plan, Appendix G of the Permit.

III.I.2. If, after closure, the Permittee finds that not all contaminated soils and debris can be removed or decontaminated in accordance with the Closure Plan, then the Permittee shall close the OB/OD unit and perform post-closure care in accordance with requirements contained in Permit Condition V.

III.J. RECORDKEEPING

The Permittee shall develop and maintain all records required to comply with Part VI.A. [Adopts by refer-

ence 40 CFR 264.73 and 40 CFR 264.602] of the GHWMRs.

III.K. SCHEDULE FOR IMPROVEMENTS

The OB unit of the EOD range is in a non-operational condition and has not been maintained. In the event that the Permittee needs to conduct OB operations, the Permittee shall submit a schedule of repair for the OB unit to the Guam Environmental Agency for review and approval. The scope of repair work must enable the unit to meet the performance requirements and specifications for the OB unit described in the Permit. Pending completion and commencement of use of the improvements, the Permittee shall conduct open burning under interim status in accordance with Part VII.A. [Adopts by reference 40 CFR 265.382] of the GHWMRs.

The Permittee shall commence use of the permitted open burn component of the OB/OD unit if, within thirty (30) days of submission of certification of construction, the Administrator has not inspected the unit component; otherwise, the Permittee shall commence use of the permitted unit component at an earlier time upon Administrator inspection and approval.

* * * * *

Attachment 4

Table III-7 Ordnances Pre-Evaluated

Andersen AFB EOD RCRA Treatment Operations

* * * * *

Table III-7
Ordnances Pre-Evaluated
Andersen AFB EOD RCRA Treatment Operations
(Page 1 of 3)

Ordnance #	Name	OB	OD
1	Cartridge, 5.56 mm Ball	X	X
2	Cartridge, 5.56 mm Ball/tracer	X	X
3	Cartridge, 5.56 mm Blank	X	X
4	Cartridge, 7.62 mm Blank	X	X
5	Cartridge, 7.62 Ball	X	X
6	Cartridge, 9 mm Para	X	X
7	Cartridge, 12 gauge	X	X
8	Cartridge, .30-06	X	X
9	Cartridge, .357 Magnum	X	X
10	Cartridge, 20 mm HEI		X
11	Cartridge, 40 mm	X	X
12	M58A3 40mm		X
13	Simulator, Booby Trap	X	X
14	Cap, Electric blasting		X
15	Cap, Non-electric blasting		X
16	Cord, detonating		X
17	FLSC 100 to 600 GPF		X
18	Fuse, time	X	X
19	Igniter, M60	X	X
20	Charge, demolition, M112 (C4)		X
21	Charge, demolition, TNT		X
22	Charge, assembly, demolition		X
23	Demolition kit, Bangalore torpedo, M1A1		X

24	Charge, demolition block, M118		X
25	Charge, demolition roll		X
26	Deta Sheet		X
27	Charge, demolition, shaped 15lb		X
28	Charge, demolition, shaped 40lb		X
29	Cratering charge M180		X
30	Demolition kit, projected charge, M1		X
31	Dynamite, military, M1		X
32	Water Gel Explosive		X
33	Single-base smokeless powder	X	X
34	Black powder	X	X
35	Fireworks, seal	X	X
36	Firing device, M1	X	X
37	Firing device, demolition, M1A1	X	X
38	Firing device, demolition, M5	X	X
39	Firing device, demolition, M3	X	X
40	Firing device, demolition, M1	X	X
41	Cartridge, Fire Extinguisher	X	X
42	Detonator, percussion, M2A1	X	X
43	Detonator, percussion, M1A2	X	X
44	Cutter, line M21	X	X
45	Detonator kit, M1		X

46	Cartridge, impulse	X	X
47	Cartridge set, impulse	X	X
48	Cartridge, initiator	X	X
49	Cartridge, actuator	X	X
50	Primer, percussion, cap	X	X
51	Firing device, demolition, M142	X	X
52	Simulator, ground, M115/M116	X	X
53	Smoke Pot		X
54	Squib, Fire Extinguisher	X	X
55	Squib, M1	X	X
56	Signal, Smoke/illuminating	X	X
57	Kit, Aot Deploy	X	X
58	2 Bomblet		X
59	M74 Bomblet		X
60	AN/M50		X
61	Bomb, MK 82		X
62	Bomb, M117		X
63	Fuze, Type 93		X
64	Fuze, FMU 113/B		X
65	Fuze, FMU 54A/B		X
66	Fuze, MK 28		X
67	Fuze, MK18		X
68	Fuze, M905		X
69	Booster, M147/M148		X
70	Mortar, M49A2		X
71	Mortar, Type 97		X
72	Projectile, 5 inch		X
73	Projectile, high explosive		X
74	Projectile, MK28		X
75	Projectile, MK34		X
76	Projectile, MK35		X

77	Projectile, MK44		X
78	Projectile, MK45		X
79	Projectile, MK165, 76 mm		X
80	Projectile, White Phosphorus		X
81	Rocket, LAW		X
82	Rocket, LAW-35mm subcaliber	X	X
83	Mine, antipersonnel, M16		X
84	Mine, antipersonnel, M14		X
85	Mine, antipersonnel, M26		X
86	Mine, antitank, M15		X
87	Mine, antitank, M19		X
88	Mine, Claymore, M18		X
89	Flare, MK25		X
90	Flare, AN-M 26		X
91	Flare, MK124	X	X
92	Flare, Personal distress	X	X
93	Flare, ALA17/B	X	X
94	MK 24 Cluster		X
95	Grenade, MK1, Illuminating		X
96	Grenade, M14	X	X
97	Grenade, MK-2		X
98	Grenade, Smoke, M18	X	X
99	Grenade, Type 97		X
100	Grenade, Type 99		X
101	Grenade, fragmentation		X
102	Grenade, offensive, MK3A2		X
103	Weapons, Confiscated		X
104	Ethylene Oxide	X	X

* * * * *

Appendix B

Security Procedures and Equipment

* * * * *

1. Procedures To Prevent Hazards

Security Procedures and Equipment (Parts X.A. and VI.A. [Adopts by reference 40 CFR 270.l4(b)(4) and 40 CFR 264.14] of the GHWMRs)

Demonstration That Unknown or Unauthorized Contact with Waste Is Not Harmful (Part VI.A. [Adopts by reference 40 CFR 264.14(a)(1)] of the GHWMRs)

Unauthorized contact with the waste treated at the OB/OD cannot happen, as the wastes are only on-site during attended operations. Therefore, this section is not applicable.

Demonstration That Disturbance of Waste or Equipment Will Not Cause Violation of 40 CFR 264 (Part VI.A. [Adopts by reference 40 CFR 264.14(a)(2)] of the GHWMRs)

Unauthorized contact with the waste treated at the OB/OD cannot happen, as the wastes are only on-site during attended operations. Therefore, this section is not applicable.

Description of a 24-hour Surveillance System (Part VI.A. [Adopts by reference 40 CFR 264.14(b)(1)] of the GHWMRs)

There are varying degrees of security requirements and procedures at Andersen AFB to control access to the main base as well as to restricted areas. Each entry has

certain restrictions that must be observed by all personnel. Base employees are issued identification cards and are required to show the cards to gain access to the base. Visitors to the base, including guests of military personnel and Government of Guam agency representatives, must be sponsored onto the base.

The main base may be entered at two locations: the front (main) entrance and the rear entrance. The main entrance is on Marine Corps Drive and a 24-hour-a-day manned guardhouse, fence, and gates control access. The rear entrance is on Santa Rosa Boulevard and consists of a guardhouse, fence, and gates that currently provide access 12 hours per day.

Security at Andersen AFB is maintained by the 36th Wing, 36th Security Forces Squadron. In addition to manning the guardhouses, the police squadron provides a 24-hour, 7-day per week roving patrol service throughout the base.

Entry into the flight line and restricted areas, such as the EOD Range, by unauthorized base and off-base personnel is prohibited. Escorts and log-in requirements are imposed upon entry to restricted areas. These areas are either completely fenced in or bounded by a natural barrier such as a cliff or forest. Vehicular access to the EOD Range is denied by two sequential gates on the only access road.

Description of the Artificial or Natural Barrier (Part VI.A. [Adopts by reference 40 CFR 264.14(b)(2)(i)] of the GHWMRs)

In addition to the security provisions of fencing, gates, and guards several natural features contribute to the safety and security of the EOD Range. Access to the

EOD Range is controlled through the use of both natural and artificial barriers. It is bounded to the north by the Pacific Ocean, by the flight line cliff on the south and east, and by two separately locked gates on the access road to the west.

As discussed above, the only vehicular access route is by the only access road, which has two sequential locked gates. Non-vehicular access is denied from three of four compass directions by natural barriers.

The EOD Range is bordered to the north by the Pacific Ocean. This area of the island of Guam is encircled by a continuous reef line approximately 200 feet off shore. One cannot bring a boat to shore in this area. Likewise, a swimmer would sustain serious injury attempting to cross the reef.

The EOD Range is bordered to the south and east by a dense jungle in arid etched karst limestone bedrock in an area of tremendous topographic relief. The ground surface elevation south of the range rises some 500 feet in less than 1/2 mile. These two barriers should prevent any person from accessing the EOD Range.

The EOD Range is bordered to the west by the same dense jungle growth. Line of sight distances in this dense jungle growth average less than 50 feet. Only two clear paths are available from the west. The first is the access road, which has security structures as previously discussed. The second potential line of access is the beach itself, which is approximately 100 feet wide at the east end of Tarague Beach. Wave action and typhoon conditions on the beach have made it extremely difficult to maintain any barriers to physically prevent entry from the west along the beach. Unknowing entry is pre-

vented through warning signs maintained at the Pati Point Recreation Area approach.

In addition to the above discussion of the natural barriers to all four cardinal compass headings, one must also bear in mind that the EOD Range is totally enclosed on three of four sides by Andersen AFB. The nearest public or private property is several miles off base.

Method to Control Entry and Number of Personnel in the Treatment Area (Part VI.A. [Adopts by reference 40 CFR 264.14(b)(2)(ii)] ofthe GHWMRs)

In addition to the warning signs and locked gates to prevent unauthorized entry, red warning flags are flown during EOD operations. The red flags are flown at two locations: the gate at the small arms range on Tarague Well Road and on the beach near the personnel bunker at the EOD treatment area.

Sign Posted at Each Entrance with Legend "Danger-Unauthorized Personnel Keep Out" (Part VI.A. [Adopts by reference 40 CFR 264.14(c)] of the GHWMRs)

Warning signs are posted along both accessible and inaccessible boundaries of the EOD Range to provide would-be trespassers ample notice that the site is a restricted area. All signs are written in English and Chamorro and are legible from at least 25 feet away. Warning signs that read "Danger, Explosive Disposal Range Keep Out" are posted along the cliff top above the EOD Range. The warning signs at the Pati Point Recreation Area approach to the west consist of the following legend: "Danger, Small Arms Range, DOD Ammunition Dud Area, Off Limits To All Personnel." Prior to any operation of the EOD Range, the beach area is

inspected to eliminate the possibility of unauthorized entry. Warning signs are also posted at both locked gates on the access roads and on the beach at the treatment area within the EOD Range. The signs state: "Danger, Explosive Disposal Range, Keep Out."

To reinforce that the EOD Range is a restricted area, 40 warning signs with a legend in both English and Chamorro will be distributed around the perimeter of the EOD Range. These signs will be legible from a distance of 25 feet. The legend consists of "DANGER" in white 4-inch capital letters on a red and black background. Beneath the word "Danger," in 4-inch black lettering, is "EXPLOSIVE DISPOSAL RANGE KEEP OUT" on a white background. Beneath the warning written in English is a corresponding warning written in the local language of Chamorro.

* * * * *

APPENDIX I—PROCESS INFORMATION

A. Process Information

* * * * *

A1. Open Burning (OB) in Containment Devices (Part X.A. [Adopts by reference 40 CFR 270.23 and 270.32] of the GHWMRs)

Appropriateness of Treatment Methods (Part X.A. [Adopts by reference 40 CFR 270.32(b)] of the GHWMRs)

Waste energetic materials have been historically treated by OB, since this technology has been determined to be the most appropriate from a health and safety standpoint. Many types of military ordnances

are designed so that they cannot be easily and safely disassembled, and for these types of ordnances, the OB technology may be the only method of treatment that provides an adequate margin of worker safety. In addition, OB is also inexpensive, and technically simple and relatively easy to conduct.

The effectiveness of other forms of treatment of waste energetic material is for the most part, unknown. Effectiveness in this context refers to the following:

- The ability to eliminate the reactive or explosive hazard posed by the materials, or to reduce such hazards so that the materials are no longer defined to be reactive or explosive.
- The ability to reduce hazardous and/or toxic materials to innocuous materials, as compared to the original material treated.

The Department of Defense has performed and continues to perform significant research and development activities to identify and evaluate alternative treatment technologies to OB/OD. While some alternatives have progressed beyond the conceptual or laboratory scale, most are still years away from being a viable alternative to OB/OD technologies. Additionally, although some technologies may show promise on a laboratory or pilot scale, they are only applicable to a small subset of the total universe of wastes, which may require treatment at AAFB. Therefore, implementation of alternative technologies that may be applicable at some future date may not permit total elimination of OB/OD activities at AAFB.

The current OB/OD treatment technologies are also very safe for waste handlers. In the process of refining

OB/OD procedures throughout DOD, numerous SOPs have been developed that specifically ensure the safety of waste handlers. In fact, one of the key limitations to implementing alternative technologies is that the quality of worker safety provisions is not verified.

* * * * *

A3. Open Detonation (OD) (Part X.A. [Adopts by reference 40 CFR 270.23 and 270.32] of the GHWMRs)

Appropriateness of Treatment Technology (Part X.A. [Adopts by reference 40 CFR 270.32(b)] of the GHWMRs)

The first portion of A1 provided a rationale as to why the OB technology is the most appropriate treatment technology for energetic reactive hazardous wastes. This discussion is also applicable to OD activities. Given the large net explosive weight contained in many of the ordnance items routinely detonated at the AAFB OD unit, the potential for use of alternative technologies is even more limited than in OB.

* * * * *

ANDERSEN AIR FORCE BASE, GUAM

HAZARDOUS WASTE MANAGEMENT FACILITY PERMIT

Permit Number: GUS002

EXPLOSIVE ORDNANCE DISPOSAL
OPEN BURN/OPEN DETONATION FACILITY

GUAM ENVIRONMENTAL PROTECTION AGENCY
1973

TODO Y NILALA Y TANO MAN UNO
All LIVING THINGS OF THE EARTH ARE ONE

OMB# 2050-0024; Expires 05/31/2020

Guam Environmental Protection Agency

RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (Select only one.)

☐	Obtaining or updating an EPA ID number for an on-going regulated activity that will continue for a period of time. (Includes HSM activity)
☐	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
	☐ Site was a TSD facility and/or generator of > 1,000 kg of hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations)
☐	Notifying that regulated activity is no longer occurring at this Site
☐	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
☑	Submitting a new or revised Part A Form

2. Site EPA ID Number

G	U	6	5	7	1	9	9	9	5	1	9

3. Site Name

Andersen Air Force Base

4. Site Location Address

Street Address	Explosive Ordnance Disposal Range, Tarague Beach	
City, Town, or Village Yigo		County
State GU	Country United States	Zip Code 96543

5. Site Mailing Address ☐ Same as Location Address

Street Address	36th Wing, Unit 14003	
City, Town, or Village Yigo		
State GU	Country United States	Zip Code 96543-4003

6. Site Land Type

☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary)	928110	C.	
B.	493910	D.	

EPA ID Number | G | U | 6 | 5 | 7 | 1 | 9 | 9 | 9 | 5 | 1 | 9 | OMB# 2050-0024; Expires 05/31/2020

8. Site Contact Information ☐ Same as Location Address

First Name **Jeffrey**	MI **P**	Last Name **Laitila**	
Title **Chief, Environmental Flight**			
Street Address **36 CES/CEV Unit 14007**			
City, Town, or Village **Yigo**			
State **GU**	Country **United States**	Zip Code **96543-4007**	
Email **jeffrey.laitila@us.af.mil**			
Phone **(671) 366-2556**	Ext	Fax	

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner ☐ Same as Location Address

Full Name United States Navy		Date Became Owner (mm/dd/yyyy) 10/1/2009
Owner Type ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other		
Street Address 36th Wing, Unit 14003		
City, Town, or Village Yigo		
State GU	Country **United States**	Zip Code 96543-4003
Email		
Phone 366-3600	Ext	Fax
Comments		

B. Name of Site's Legal Operator ☐ Same as Location Address

Full Name Brigadier General Jeremy T. Sloane		Date Became Operator (mm/dd/yyyy) 7/1/2020
Operator Type ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other		
Street Address **36th Wing, Unit 14003**		
City, Town, or Village **Yigo**		
State **GU**	Country **United States**	Zip Code **96543-4003**
Email jeremy.sloane@us.af.mil		
Phone **(671) 366-3600**	Ext	Fax
Comments		

EPA ID Number | G | U | 6 | 5 | 7 | 1 | 9 | 9 | 9 | 5 | 1 | 9 | OMB# 2050-0024; Expires 05/31/2020

10. Type of Regulated Waste Activity (at your site)
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities

☑Y ☐N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c		
	☑	a. LQG	-Generates, in any calendar month (includes quantities imported by importer site) 100 kg/mo (220 lbs/mo) or more of non-acute hazardous waste; or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 50 kg /mo (110 lb /mo) of acute hazardous spill cleanup material.
	☐	b. SQG	50 to less than 100 kg/mo (110 -219 lbs/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
	☐	c. VSQG	Less than 50 kg/mo (110 lbs/mo) of non-acute hazardous waste.
If "Yes" above, indicate other generator activities in 2 and 3, as applicable.			
☐Y ☑N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.		
☐Y ☑N	3. Mixed Waste (hazardous and radioactive) Generator		
☑Y ☐N	4. Treater, Storer or Disposer of Hazardous Waste—Note: A hazardous waste Part B permit is required for these activities.		
☐Y ☑N	5. Receives Hazardous Waste from Off-site		
☐Y ☑N	6. Recycler of Hazardous Waste		
	☐	a. Recycler who stores prior to recycling	
	☐	b. Recycler who does not store prior to recycling	
☐Y ☑N	7. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.		
	☐	a. Small Quantity On-site Burner Exemption	
	☐	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

D003						

~~**C. Waste Codes for State-Regulated (non-Federal) Hazardous Wastes.** Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.~~ NOT APPLICABLE IN GUAM

SER 5

EPA ID Number | G | U | 6 | 5 | 7 | 1 | 9 | 9 | 9 | 5 | 1 | 9 |

OMB# 2050-0024; Expires 05/31/2020

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT PART A FORM

1. Facility Permit Contact

First Name	Jeffrey	MI	P	Last Name	Laitila
Title	Chief, Environmental Flight				
Email	jeffrey.laitila@us.af.mil				
Phone	(671) 366-2556	Ext		Fax	

2. Facility Permit Contact Mailing Address

Street Address	36 CES/CEV Unit 14007, Building 18001, Arc Light Boulevard		
City, Town, or Village	Yigo		
State	GU	Country	United States	Zip Code	96543-4007

3. Facility Existence Date (mm/dd/yyyy)

10/30/1980

4. Other Environmental Permits

A. Permit Type	B. Permit Number	C. Description
		See attached sheets for list of permits.

5. Nature of Business

EPA ID Number | G | U | 6 | 5 | 7 | 1 | 9 | 9 | 5 | 1 | 9 | OMB# 2050-0024; Expires 05/31/2020

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity (1) Amount	B. Process Design Capacity (2) Unit of Measure	C. Process Total Number of Units	D. Unit Name
		X	0	1	0.05	N	001	
		X	0	1	0.30	N	001	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes (1) Process Codes								D. Processes (2) Process Description (If code is not entered in 7.D1))
	1	D	0	0	3	5000	P	X	0	1						Open Burn
	2	D	0	0	3	30,000	P	X	0	1						Open Detonation

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

Section 8, 9, and 10 are attached in Part B of this application.

SECTION I—GENERAL PERMIT CONDITIONS

I.A. EFFECT OF PERMIT

The Permittee is allowed to treat hazardous waste at the OB/OD unit in accordance with the conditions of this Permit. Any treatment of hazardous waste not authorized in this Permit is prohibited, except for treatment of hazardous waste, which occurs in RCRA permit-exempt units. Subject to Part X.A. (Adopts by reference 40 CFR 270.4) of Guam's Hazardous Waste Management Regulations (herein referred to as GHWMRs), compliance with this Permit generally constitutes compliance, for purposes of enforcement, with 10 Guam Code Annotated (GCA), Chapter 51, Solid Waste Management and Litter Control (Subtitle C of the Resource Conservation and Recovery Act) (RCRA). Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, any infringement of state or local law or regulations, or preclude compliance with any other Federal, State, and/or local laws and/or regulations governing the treatment and handling of explosives. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3013, or 7003 of RCRA, except as provided in 40 CFR 270.4(a); Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), or any other law providing for protection of public health or the environment. Part X.A. [Adopts by reference 40 CFR 270.4, 270.30(g)] in the GHWMRs.

I.B. PERMIT ACTIONS

I.B.1. Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in Part X.A., L, M, N, O, P, Q, and R (Adopts by reference 40 CFR 270.41, 270.42, and 270.43) of the GHWMRs. The filing of a request for a Permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any Permit Condition. Part X.A. [Adopts by reference 40 CFR 270.4(a) and 270.30(f)] of the GHWMRs.

I.B.2. Permit Renewal

This Permit may be renewed as specified in Part X.A. [Adopts by reference 40 CFR 270.30(b)] of the GHWMRs and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. Part X.A. [Adopts by reference 40 CFR 270.30(b), HSWA Section 212] of the GHWMRs.

I.C. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Part XI.A. [Adopts by reference 40 CFR 124.16(a)] of the GHWMRs.

I.D. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in Parts XI.A., II.A., VI.A., VIII.A., IX.A., and X.A. [Adopts by reference 40 CFR Parts 124, 260, 264, 266, 268, and 270] of the GHWMRs, unless this Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. "Administrator" means the Administrator of Guam EPA, or his/her designee or authorized representative. "Foreign Source" or "Foreign Country" means any place, location, point, or area outside the territory of Guam.

I.E. DUTIES AND REQUIREMENTS

I.E.1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of RCRA, and 10 GCA Chapter 51 (Solid Waste Management and Litter Control) and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. Part X.A. [Adopts by reference 40 CFR 270.30(a)] of the GHWMRs.

I.E.2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a

new Permit at least 180 days prior to Permit expiration. Part X.A. [Adopts by reference 40 CFR 270.10(h), 270.30(b)] of the GHWMRs.

I.E.3. Permit Expiration

Pursuant to Part X.A., and T. [Adopts by reference 40 CFR 270.50] of the GHWMRs, this Permit shall be effective for a fixed term of three (3) years as described under Part X.S. [Adopts by reference 40 CFR 270.50(a) as amended] of the GHWMRs. As long as Guam EPA is the Permit issuing authority, this Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application (see Parts X. A, D, E, and F [adopts by reference 40 CFR 270.10, 270.13 through 270.29] of the GHWMRs and, if through no fault of the Permittee, the Administrator has not issued a new Permit, as set forth in Part X.A., and U. [Adopts by reference 40 CFR 270.51] of the GHWMRs.

* * * * *

SECTION II—GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

The Permittee shall construct, maintain, and operate the facility to minimize the possibility of an unplanned fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by Part VI.A. [Adopts by reference 40 CFR 264.31] of the GHWMRs

* * * * *

II.E. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedule set out in Appendix C of the Permit. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by Part VI.A. [Adopts by reference 40 CFR 264.15(c)] of the GHWMRs.

Records of inspection shall be kept, as required by Part VI.A. [Adopts by reference 40 CFR 264.15(d)] of the GHWMRs.

* * * * *

II.I. CONTINGENCY PLAN

II.I.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the Contingency Plan, Appendix F of the Permit, whenever there is an unplanned fire, explosion, or release of hazardous waste or constituents which could threaten human health or the environment.

II.I.2. Copies of Plan

The Permittee shall maintain a copy of the Contingency Plan at the facility and shall provide a copy to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be asked to provide emergency assistance, as required by Part VI.A. [Adopts by reference 40 CFR 264.53] of the GHWMRs.

II.I.3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by Part VI.A. [Adopts by reference 40 CFR 264.54] of the GHWMRs.

II.I.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by Part VI.A. [Adopts by reference 40 CFR 264.55] of the GHWMRs.

The names, addresses, and phone numbers of all persons qualified to act as emergency coordinators must be kept up to date and included in the Contingency Plan. Part VI.A. [Adopts by reference 40 CFR 264.52(d)] of the GHWMRs.

* * * * *

SECTION III—TREATMENT OF REACTIVE WASTES

III.A. SECTION HIGHLIGHTS

Open burning and open detonation of waste ordnance materials occurs at the Explosive Ordnance Disposal (EOD) Range. The unit is located at the extreme eastern reach of Tarague Beach, ending just before Tagua Point (Appendix H of the Permit). The grid coordinates for the Open Detonation unit is 13 degrees, 35.58 minutes north, 144 degrees, 56.48 minutes east. This area has been in constant use since its inception at least 20 years ago. Its mission is to render unserviceable ordnance and other pyrotechnic devices harmless by either suppressed detonation or open burning. In addition, the EOD range has been used for EOD training purposes and emergency purposes.

The EOD range is defined as the open beach area bounded by the Pacific Ocean to the north and the jungle and/or limestone to the east, south, and west. Surrounding the active treatment units is a 2,400 foot-ra-

dius safety zone, as defined by operational requirements.

The active detonation units are located at the extreme eastern edge of Taragüe Beach. They consist of two (2) pits; each located directly along the face of the cliff. Detonation of the munitions at the cliff face directs the destructive force of the detonation away from the occupied areas. Open detonation operations consists of several steps, including properly placing: the waste munitions, an explosive charge to detonate the waste munitions (if required), and an igniter to initiate the detonator. Detonations are initiated from the personnel bunker.

The inactive open burning pit is located approximately 80 feet from the jungle and 180 feet from the Pacific Ocean, approximately midway east west in the EOD Range. Open burning was conducted in a burn kettle approximately four feet in diameter and five feet tall. The OB pit was roughly 45 feet long by 14 feet wide by 6 feet deep.

Open burning operations consists of placing dunnage (wood) in the burn kettle to provide access for combustion air, placing the waste munitions in the burn kettle, placing a remote-controlled ignition device, placing approximately ten (10) gallons of virgin diesel fuel in the burn kettle, then remotely activating the ignition device from the personnel bunker.

Facility Pictures and a topographic map of the EOD Range are attached in Appendix H of the Permit.

After review of the ecological risk assessment in the Permit application, the Administrator has concluded that the mortality of biological receptors has to be pro-

tected from OB/OD activities. Therefore, the Permittee is required to follow the Biological Mitigation Plan, Appendix L, as described in this Permit.

Currently, the OB unit burn kettle is non-operational due to severe corrosion and the unit has not been used for several years. Before any open burning activity is allowed under the permit, the unit must meet the design and operational specifications described in the permit application as adopted in this Permit.

The Permittee shall operate the OB/OD unit in accordance with the Waste Analysis Plan, Standard Operating Procedures, Residue Management Plan, Groundwater Monitoring Plan, and the Biological Mitigation Plan as described in the Permit.

III.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

III.B.1. The Permittee may open burn/open detonate at the OB/OD unit hazardous wastes (also referenced in this Permit as "reactive waste") that consist of common military ordnance material (such as black powder, white/red phosphorus, tear gas, ammunitions, propellants, and explosive materials).

The Permittee shall abide by the restrictions for treatment through OB/OD of RCRA Hazardous waste materials as described in Appendix I, of the Permit, "Open Burning/Open Detonation RCRA hazardous waste treatment waste materials restrictions".

III.B.2. The Permittee is prohibited from treating hazardous waste at the OB/OD unit that is not identified in Permit Condition III.B.1.

III.C. DESIGN, CONSTRUCTION, AND OPERATING REQUIREMENTS

III.C.1. Open Burning in a Containment Device

Open burning of the OB/OD unit shall be conducted pursuant to the information provided to meet design, construction, and operating requirements provided in the Process Information, the OB/OD Residue Management Plan, Flight Operating Instruction 32-3002 (FOI 32-3002), and the Biological Mitigation Plan (Appendix I, J, K and L of the Permit). The information addresses the following requirements:

III.C.1.a. The Permittee shall operate and maintain the open burning device in accordance with the Process Information, the OB/OD Residue Management Plan, FOI 32-3002, and the Biological Mitigation Plan (Appendix I, J, K and L of the Permit).

III.C.1.b. The Permittee shall design, construct, operate, and maintain a precipitation cover for the open burning tray(s) in accordance with the Procedures identified in Appendix I of the Permit.

III.C.1.c. The Permittee shall design, construct, operate, and maintain the open burning unit to minimize air emissions or exposure of people (onsite or offsite) to toxic or hazardous emissions in accordance with the Process Information, the OB/OD Residue Management Plan, FOI 32-3002, and the Biological Mitigation Plan (Appendix I, J, K and L of the Permit).

III.C.1.d. The Permittee shall provide guidance on how ash/residues from the open burning unit will be managed in accordance with the OB/OD Residue Management Plan (Appendix J of the Permit).

III.C.1.e. The Permittee shall follow the procedures for the protection of ecological receptors in accordance with the Biological Mitigation Plan in Appendix L of the Permit.

III.C.2. Open Detonation On/In the Ground

III.C.2.a. The Permittee shall operate and maintain the open detonation area at the OB/OD unit in accordance with the operating procedures, the Process Information, the OB/OD Residue Management Plan, FOI 32-3002, and the Biological Mitigation Plan (Appendix I, J, K and L of the Permit).

III.C.2.b. The Permittee shall operate and maintain the open detonation area to minimize air emissions or exposure of people (onsite or offsite) to toxic or hazardous emissions in accordance with the hazard prevention procedures Appendix I of the Permit.

III.C.2.c. The Permittee shall manage residues from open detonation in accordance with Appendix J of the Permit.

III.D. HANDLING REQUIREMENTS

The Permittee shall handle/manage reactive waste that will be treated at the OB/OD unit in accordance with the Process Information, OB/OD Residue Management Plan, and FOI 32-3002 (Appendix I, J and K of the Permit).

III.E. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the OB/OD unit in accordance with the inspection schedule set out in Appendix C of the Permit.

III.F. PREVENTION OF UNINTENDED IGNITION OR REACTION OF WASTES

The Permittee shall follow the procedures, contained in Appendix E of the Permit, designed to prevent unintended ignition or reaction of waste.

III.G. MONITORING REQUIREMENTS

The Permittee shall conduct ground water monitoring at the OB/OD unit in accordance with Permit Condition IV. In addition, the Permittee shall follow the appropriate monitoring procedures under the Biological Mitigation Plan (Appendix L).

III.H. FACILITY MODIFICATION/EXPANSION

III.H.1. Permit Modification

Guam EPA reserves the right to modify this Permit in accordance with Part X.A. (Adopts by reference 40 CFR 270.41) of the GHWMRs.

III.H.2. Permit Modification At The Request Of The Permittee Modifications or expansions of the facility shall be accomplished in accordance with Part X.A. (Adopts by reference 40 CFR 270.42) of the GHWMRs.

III.I. CLOSURE AND CONTINGENT POST-CLOSURE

III.I.1. At final closure of the OB/OD unit, the Permittee shall follow the procedures in the Closure Plan, Appendix G of the Permit.

III.I.2. If, after closure, the Permittee finds that not all contaminated soils and debris can be removed or decontaminated in accordance with the Closure Plan, then the Permittee shall close the OB/OD unit and perform post-closure care in accordance with requirements contained in Permit Condition V.

III.J. RECORDKEEPING

The Permittee shall develop and maintain all records required to comply with Part VI.A. [Adopts by reference 40 CFR 264.73 and 40 CFR 264.602] of the GHWMRs.

III.K. SCHEDULE FOR IMPROVEMENTS

The OB unit of the EOD range is in a non-operational condition and has not been maintained. In the event that the Permittee needs to conduct OB operations, the Permittee shall submit a schedule of repair for the OB unit to the Guam Environmental Agency for review and approval. The scope of repair work must enable the unit to meet the performance requirements and specifications for the OB unit described in the Permit. Pending completion and commencement of use of the improvements, the Permittee shall conduct open burning under interim status in accordance with Part VII.A. [Adopts by reference 40 CFR 265.382] of the GHWMRs.

The Permittee shall commence use of the permitted open burn component of the OB/OD unit if, within thirty (30) days of submission of certification of construction, the Administrator has not inspected the unit component; otherwise, the Permittee shall commence use of the permitted unit component at an earlier time upon Administrator inspection and approval.

* * * * *

APPENDIX A—OB/OD WASTE ANALYSIS PLAN

* * * * *

Attachment 4

Table III-7 Ordnances Pre-Evaluated

Andersen AFB EOD RCRA Treatment Operations

* * * * *

Table III-7
Ordnances Pre-Evaluated
Andersen AFB EOD RCRA Treatment Operations

Ordnance #	Name	OB	OD
1	Cartridge, 5.56 mm Ball	X	X
2	Cartridge, 5.56 mm Ball/tracer	X	X
3	Cartridge, 5.56 mm Blank	X	X
4	Cartridge, 7.62 mm Blank	X	X
5	Cartridge, 7.62 Ball	X	X
6	Cartridge, 9 mm Para	X	X
7	Cartridge, 12 gauge	X	X
8	Cartridge, .30-06	X	X
9	Cartridge, .357 Magnum	X	X
10	Cartridge, 20 mm HEI		X
11	Cartridge, 40 mm	X	X
12	M58A3 40mm		X
13	Simulator, Booby Trap	X	X
14	Cap, Electric blasting		X
15	Cap, Non-electric blasting		X
16	Cord, detonating		X
17	FLSC 100 to 600 GPF		X
18	Fuse, time	X	X
19	Igniter, M60	X	X
20	Charge, demolition, M112 (C4)		X

21	Charge, demolition, TNT		X
22	Charge, assembly, demolition		X
23	Demolition kit, Bangalore torpedo, M1A1		X
24	Charge, demolition block, M118		X
25	Charge, demolition roll		X
26	Deta Sheet		X
27	Charge, demolition, shaped 15lb		X
28	Charge, demolition, shaped 40lb		X
29	Cratering charge M180		X
30	Demolition kit, projected charge, M1		X
31	Dynamite, military, M1		X
32	Water Gel Explosive		X
33	Single-base smokeless powder	X	X
34	Black powder	X	X
35	Fireworks, seal	X	X
36	Firing device, M1	X	X
37	Firing device, demolition, M1A1	X	X
38	Firing device, demolition, M5	X	X
39	Firing device, demolition, M3	X	X
40	Firing device, demolition, M1	X	X
41	Cartridge, Fire Extinguisher	X	X

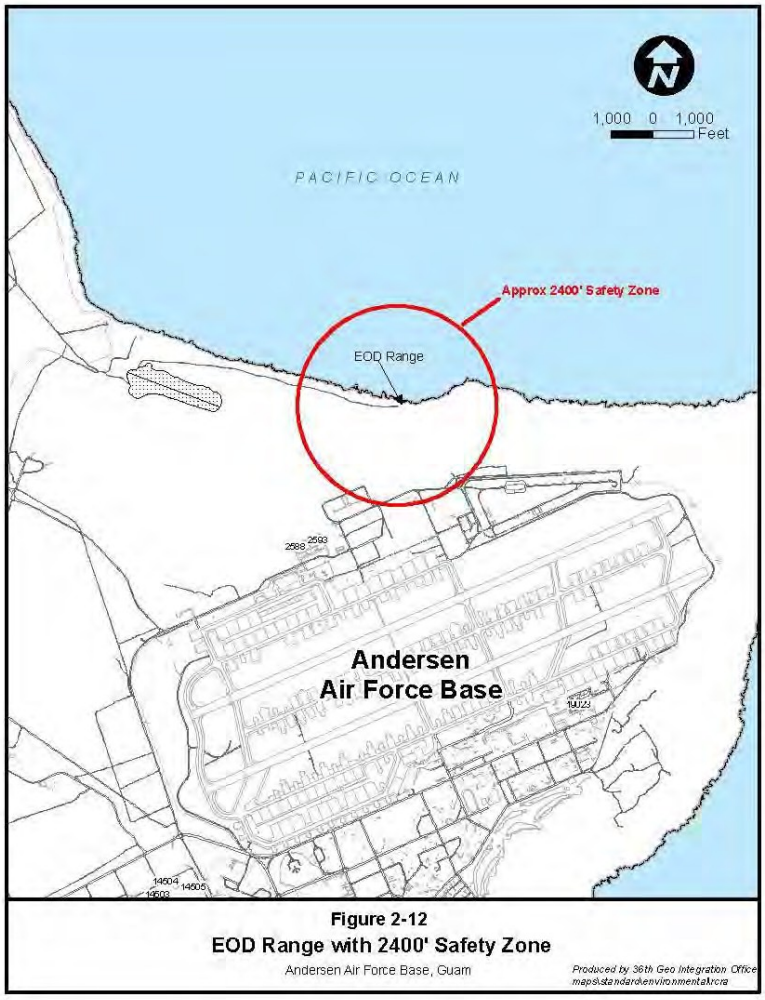
42	Detonator, percussion, M2A1	X	X
43	Detonator, percussion, M1A2	X	X
44	Cutter, line M21	X	X
45	Detonator kit, M1		X
46	Cartridge, impulse	X	X
47	Cartridge set, impulse	X	X
48	Cartridge, initiator	X	X
49	Cartridge, actuator	X	X
50	Primer, percussion, cap	X	X
51	Firing device, demolition, M142	X	X
52	Simulator, ground, M115/M116	X	X
53	Smoke Pot		X
54	Squib, Fire Extinguisher	X	X
55	Squib, M1	X	X
56	Signal, Smoke/illuminating	X	X
57	Kit, Aot Deploy	X	X
58	2 Bomblet		X
59	M74 Bomblet		X
60	AN/M50		X
61	Bomb, MK 82		X
62	Bomb,M117		X
63	Fuze, Type 93		X
64	Fuze, FMU 113/B		X
65	Fuze, FMU 54A/B		X
66	Fuze, MK 28		X
67	Fuze, MK18		X
68	Fuze, M905		X
69	Booster, M147/M148		X
70	Mortar, M49A2		X

71	Mortar, Type 97		X
72	Projectile, 5 inch		X
73	Projectile, high explosive		X
74	Projectile, MK28		X
75	Projectile, MK34		X
76	Projectile, MK35		X
77	Projectile, MK44		X
78	Projectile, MK45		X
79	Projectile, MK165, 76 mm		X
80	Projectile, White Phosphorus		X
81	Rocket, LAW		X
82	Rocket, LAW-35mm subcaliber	X	X
83	Mine, antipersonnel, M16		X
84	Mine, antipersonnel, M14		X
85	Mine, antipersonnel, M26		X
86	Mine, antitank, M15		X
87	Mine, antitank, M19		X
88	Mine, Claymore, M18		X
89	Flare, MK25		X
90	Flare, AN-M 26		X
91	Flare, MK124	X	X
92	Flare, Personal distress	X	X
93	Flare, ALA17/B	X	X
94	MK 24 Cluster		X
95	Grenade, MK1, Illuminating		X
96	Grenade, M14	X	X
97	Grenade, MK-2		X
98	Grenade, Smoke, M18	X	X
99	Grenade, Type 97		X
100	Grenade, Type 99		X
101	Grenade, fragmentation		X

102	Grenade, offensive, MK3A2		X
103	Weapons, Confiscated		X
104	Ethylene Oxide	X	X

* * * * *

APPENDIX G—CLOSURE AND POST—CLOSURE PLAN



* * * * *

Attachment 1

OB/OD Sampling and Analysis Plan/Quality Assurance Project Plan for Closure

* * * * *

Section 2: Site Description

* * * * *

2.1 Location

* * * * *

Figure 2-1
Island Map of Guam
Andersen Air Force Base, Guam

* * * * *

Appendix H

OB/OD Facility Map and Photos

* * * * *

FIGURE 2-1: EOD LOCATION MAP

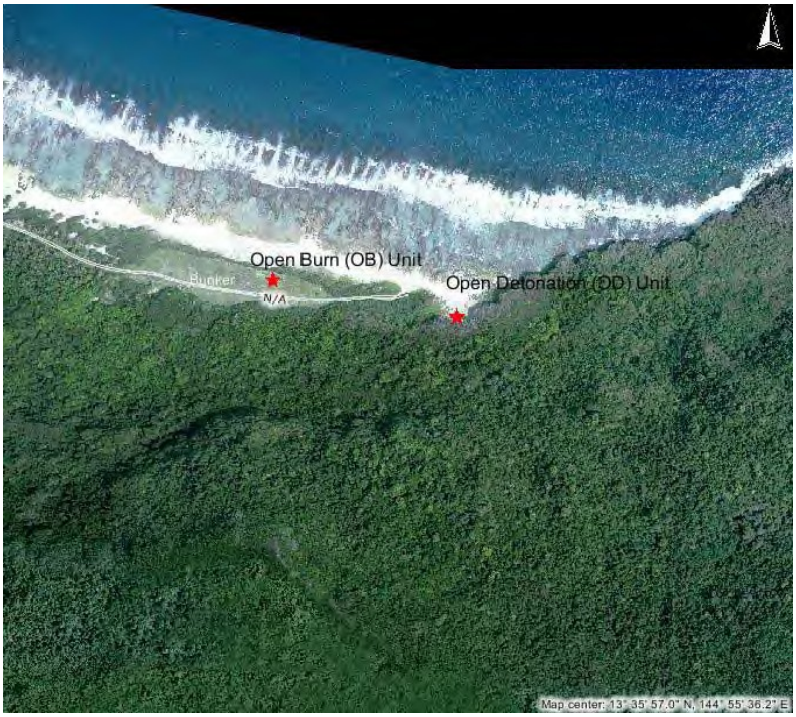
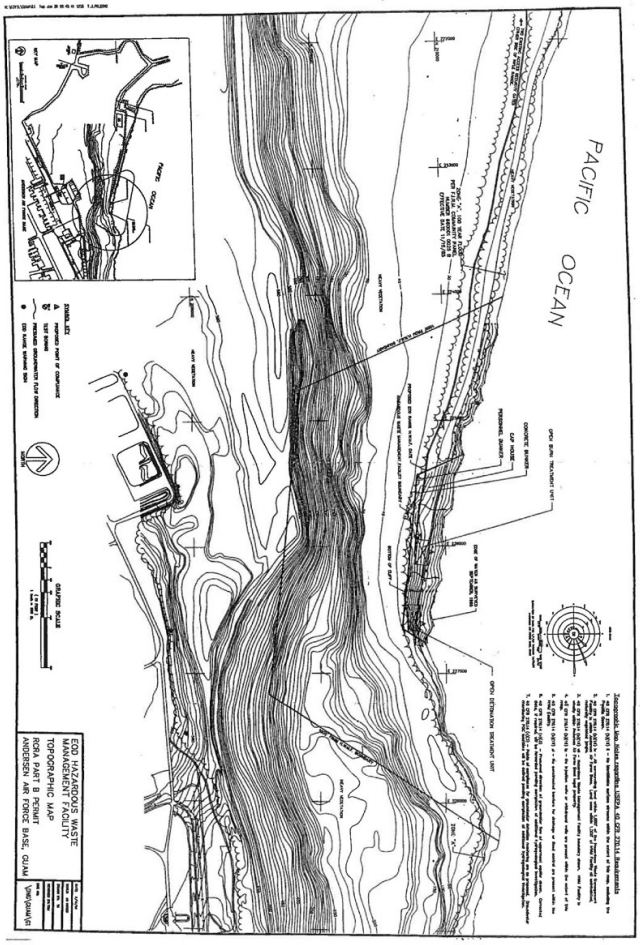


FIGURE 2-2: OB/OD AERIAL



TOPOGRAPHIC MAP

Photo 1. View of Tarague Beach (looking west) EOD Range in Foreground

Photo 2. OB proposed area (looking west)

Photo 3. West End of EOD Range (looking south) Cement/personnel bunker to left and holding points on center

Photo 4. Cement/personnel bunker (looking east)

Photo 5. Distance of OB area from sand (looking south)

Photo 6. Distance of OD unit from shore (looking north)

Photo 7. OD unit cliff line (looking south)

Photo 8. OD unit close-up (2-3 feet deep)

Photo 9. View of Tagua Point (nearly inaccessible) at east end of EOD (looking east)

Photo 10. View from east end of EOD (looking west)

* * * * *

Appendix I

Process Information

* * * * *

A. Process Information

Applicability As a "Miscellaneous Unit" (Parts VI.A. and X.A. [Adopts by reference 40 CFR 264.600 and 270.23] of the GHWMRs)

Activities performed at the OB/OD units at AAFB consist of treatment in "miscellaneous units" as defined in 40 CFR 260.10 in the RCRA regulations. Specifically, the units do not meet the definition of containers, tanks, surface impoundments, piles, land treatment units, landfills, incinerators, boilers, industrial furnaces, underground injection wells, or units eligible for research, development, and demonstration permits. Additionally, the preamble to the Subpart X regulations specifically states that the miscellaneous unit regulations are applicable to OB/OD activities for propellants, explosives, and pyrotechnics (PEP).

A1. Open Burning (OB) in Containment Devices (Part X.A. [Adopts by reference 40 CFR 270.23 and 270.32] of the GHWMRs)

Appropriateness of Treatment Methods (Part X.A. [Adopts by reference 40 CFR 270.32(b)] of the GHWMRs)

Waste energetic materials have been historically treated by OB, since this technology has been determined to be the most appropriate from a health and safety standpoint. Many types of military ordnances are designed so that they cannot be easily and safely disassembled, and for these types of ordnances, the OB technology

may be the only method of treatment that provides an adequate margin of worker safety. In addition, OB is also inexpensive, and technically simple and relatively easy to conduct.

The effectiveness of other forms of treatment of waste energetic material is for the most part, unknown. Effectiveness in this context refers to the following:

- The ability to eliminate the reactive or explosive hazard posed by the materials, or to reduce such hazards so that the materials are no longer defined to be reactive or explosive.
- The ability to reduce hazardous and/or toxic materials to innocuous materials, as compared to the original material treated.

The Department of Defense has performed and continues to perform significant research and development activities to identify and evaluate alternative treatment technologies to OB/OD. While some alternatives have progressed beyond the conceptual or laboratory scale, most are still years away from being a viable alternative to OB/OD technologies. Additionally, although some technologies may show promise on a laboratory or pilot scale, they are only applicable to a small subset of the total universe of wastes, which may require treatment at AAFB. Therefore, implementation of alternative technologies that may be applicable at some future date may not permit total elimination of OB/OD activities at AAFB.

The current OB/OD treatment technologies are also very safe for waste handlers. In the process of refining OB/OD procedures throughout DOD, numerous SOPs have been developed that specifically ensure the safety

of waste handlers. In fact, one of the key limitations to implementing alternative technologies is that the quality of worker safety provisions is not verified.

Containment Device Description (Part X.A. [Adopts by reference 40 CFR 270.23(a)] of the GHWMRs)

Physical characteristics, construction materials, and dimensions of the unit (Part X.A. [Adopts by reference 40 CFR 270.23(a)(1)] of the GHWMRs)

All OB operations treating reactive hazardous wastes occur in a metallic containment device. The containment device used for these activities is selected to meet the following objectives:

- Prevent incorporation of soil into the wastes and materials being burned;
- Contain fuels used in OB operations to prevent releases to the environment;
- Minimize the ejection of materials or wastes from the device onto the ground;
- Retain a large quantity of the heat generated during the burn; and
- Retain the minor detonations, which might occur when munitions are burned.

A large array of containment devices could meet these objectives and therefore could be employed for OB operations. Previously, a containment device used at AAFB was fabricated from a former aboveground fuel storage tank, which has been cut in half and placed on end. The device takes the form of a cylinder with a flat bottom and no top. The approximate dimensions of this containment device is 4 ft in diameter and 5 ft tall. This device is made of one-quarter inch steel. A section of

chain-link fence is placed over the top of the containment device to minimize the ejection of materials or wastes during the burn. **This device is no longer in use**.

The integrity of the existing containment device is expected to deteriorate with time, necessitating renovation or replacement of the device. Replacement devices may not necessarily consist of former aboveground tanks. Although specific designs or dimensions of future containment devices cannot be identified at this time all devices will meet the containment objectives provided above. Additionally, the dimensions of the existing devices will be typical of future devices.

Engineering drawings of the fabricated device Part X.A. [Adopts by reference 40 CFR 270.23(a)(2)] of the GHWMRs)

As the rudimentary containment device as described in the previous paragraph has not been designed and fabricated specifically for use at the OB area, no engineering drawings of this former tank exist. Similarly, future containment devices used to replace the existing structure are not expected to be designed specifically for OB application. Therefore, it is not anticipated that engineering drawings of these devices will be available or necessary for proper identification and description of the unit. A general site plan of the area showing the OB unit is located in Appendix H.

Similarly, engineering plans and reports are not applicable to operation, maintenance, monitoring, and inspection activities. Engineering plans and reports for closure are addressed in the closure plan contained in Appendix G.

Lining material within device (Part X.A. [Adopts by reference 40 CFR 270.23(a)(1) and (2)] of the GHWMRs)

No lining materials are present in the containment device as previously described. Future containment devices are similarly not expected to include a lining material.

Lining material below device Part X.A. [Adopts by reference 40 CFR 270.23(a)(1) and (2)] of the GHWMRs)

No lining materials below the containment device are used. Placement of lining materials beneath the device is not feasible given the potential destructive nature of the surf during storm events, as well as high temperature.

Leak Detection Provisions (Part X.A. [Adopts by reference 40 CFR 270.23(a) (2)] of the GHWMRs)

Following residue collection at the end of each burn event, the containment device was turned upside down to prevent accumulation of precipitation within the device. At that time, the device is inspected to ensure there are no holes, cracks, or other weaknesses in the structure of the device, and thus detect any leaks that may have occurred. This same inspection procedure is performed before the device is turned right side up prior to subsequent OB events. These activities prevent any wastes or materials placed within the device from leaking and therefore prevent releases to the environment.

Precipitation Cover (Part X.A. [Adopts by reference 40 CFR 270.23(a)(1) and (2)] of the GHWMRs)

Following residue collection at the end of each burn event, the containment device was turned upside down to prevent accumulation of precipitation within the device. This negates the need for a formal precipitation cover above the containment device.

Control of Releases of Ashes and Residues During OB (Integrity of Containment Devices) (Part X.A. Adopts by reference 40 CFR 270.23(a) (2)] of the GHWMRs)

Several procedures or facets of the containment device design have been implemented to control the release of ash and other residues during OB activities. Some of the wastes treated in the containment device may have a tendency to be ejected from the device during certain circumstances. The AAFB device is covered with a section of chain link fence to minimize the quantity of items, which are ejected from the device during the burn.

The second action taken to minimize the ejection of partially burned wastes consists of proper placement of materials and wastes to be burned within the containment device. All materials and wastes are placed at least 2 feet below the top of the containment device to minimize the possibility that wastes could be ejected from the device.

Because these measures will minimize but not completely prevent the ejection of wastes from the containment device, the Andersen AFB OB/OD Residue Management Plan, contained in the appendices, includes procedures to identify, collect and properly manage any wastes, which may have been ejected.

These procedures are implemented after the OB device is safe to approach, and never later than the day follow-

ing the OB event. The following is an excerpt from the Residue Management Plan:

- 1.2.3 The vicinity of the containment device is inspected for any items, which may have been ejected from the device. Items still containing energetic materials are placed back into the containment device for burning that day. Metallic items not containing energetic materials are placed in the OB metal fragments container.

Ash and other residues are removed from the containment device the day after the burn is initiated. This action further minimizes the potential for release of ash after the burn is completed.

A final procedure to prevent release of residues from the OB containment device is to regularly monitor the integrity of the device and repair it if there is a concern over its integrity. Following residue collection at the end of each burn event, the containment device is turned upside down to prevent accumulation of precipitation within the device. At that time, the device is inspected to ensure there no holes, cracks, or other weaknesses in the structure of the device. This same inspection procedure is performed before the device is turned right side up prior to subsequent OB events. These activities prevent any wastes or materials placed within the device from leaking from the device and therefore prevent releases of ash or other residues to the environment.

To retain ejected materials in close proximity of the containment device, the device has been placed in a shallow depression in the beach. In this configuration, the vast majority of wastes ejected from the containment device are retained within the depression, facili-

tating location and collection of the ejected wastes following completion of the burns.

* * * * *

A3. Open Detonation (OD) (Part X.A. [Adopts by reference 40 CFR 270.23 and 270.32] of the GHWMRs)

Appropriateness of Treatment Technology (Part X.A. [Adopts by reference 40 CFR 270.32(b)] of the GHWMRs)

The first portion of A1 provided a rationale as to why the OB technology is the most appropriate treatment technology for energetic reactive hazardous wastes. This discussion is also applicable to OD activities. Given the large net explosive weight contained in many of the ordnance items routinely detonated at the AAFB OD unit, the potential for use of alternative technologies is even more limited than in OB.

Description of OD Unit (Part X.A. [Adopts by reference 40 CFR 270.23(a)] of the GHWMRs)

Physical characteristics, materials of construction, and dimensions of the unit (Part X.A. [Adopts by reference 40 CFR 270.23(a)(1)] of the GHWMRs)

All OD operations occur directly on the ground (beach) surface; therefore, there are no physical characteristics or materials of construction to discuss. Detonation activities occur adjacent to the base of the lower cliff, and are limited to a small portion of the cliff base less than 50 feet in length.

Engineering plan and drawings of the OD unit (Part X.A. [Adopts by reference 40 CFR 270.23(a)(2)] of the GHWMRs)

Engineering plans or drawings of the OD unit are not applicable, since there is no man-made device or structure at the unit. A general site plan of the area showing the OD unit is contained in Appendix H.

Inspection, Monitoring, and Maintenance Plan (Part X.A. [Adopts by reference 40 CFR 270.23(a)(2)] of the GHWMRs)

As there are no "engineered" facets of the OD system, and no moving parts, inspection and monitoring can be very effective yet quite simplified. Soon after the OD unit can be safely approached following completion of a detonation (generally within 1 hour of the detonation), the OD unit is inspected for any items which may remain after detonation, as stated in the Andersen AFB OB/OD Residue Management Plan contained in the EOD Operating Procedures Appendix:

> 2.2 The OD area will be inspected for any items which may remain after detonation. Items still containing energetic materials are either placed into the OB containment device for burning that day, or detonated that day. Metallic items not containing energetic materials are placed in a container labeled "OD Metal Fragments."

More general inspection procedures for the EOD Range are described in Appendix C.

Ash and Residue Management (Part X.A. [Adopts by reference 40 CFR 270.23(a)(2)] of the GHWMRs)

The Andersen AFB OB/OD Residue Management Plan, contained in Appendix J, has been specifically prepared to address management of ash and other residues resulting from OB/OD operations. The following OD residue management procedures, described in the Man-

agement Plan, are implemented as soon as the OD unit can be approached, generally within 1 hour of completion of the detonation:

- Metallic Fragments Containing Energetic Materials—collected, and either burned in the OB containment device or detonated the day they are collected; and
- Metallic Fragments Not Containing Energetic Materials—collected, and accumulated recycling or disposal at a Guam EPA permitted facility.

Negligible quantities of ash are generated from OD operations. Therefore, the residue management procedures described above strictly address any metallic residues (principally metal fragments), which may remain after the detonation.

Run-on and Run-off Management (Part X.A. [Adopts by reference 40 CFR 270.23(a)(2)] of the GHWMRs)

The OD unit is located in the upper beach area on highly permeable materials. As such, even in major precipitation events, run-on and run-off are negligible at this site. Management of run-on and run-off at the OD unit is therefore not necessary.

Copy of SOPs (Part X.A. [Adopts by reference 40 CFR 270.23(a)(2)] of the GHWMRs)

The last portion of Section A1, Copy of Standard Operating Procedures (SOPs), contains a summary of several SOPs, which address operations both at OD and OB activities. It also references specific SOPs contained in the Appendix.

B. Environmental Performance Standards

Environmental performance standards for OB/OD RCRA hazardous waste treatment activities at the Andersen AFB EOD Range are provided in the following list of 21 items. References to those sections of this application which provide technical justification for the development of these performance standards are provided in parentheses.

Environmental Performance Standards

General

1. OB/OD activities will only occur during daylight hours.
2. OB/OD activities will only occur when wind speeds are less than or equal to 15 miles per hour.
3. OB/OD activities will not be performed if electrical storms are within 5 nautical miles of the EOD Range.
4. OB/OD activities will not be performed if major storms capable of flooding the EOD Range are forecasted to occur within 24 hours.
5. Residue from OB or OD activities which contains energetic materials will be burned or detonated the day they are located.
6. The beach area in the vicinity of the EOD Range will be policed, and all metal items collected, at least quarterly in addition to the policing conducted following each OB or OD operation.
7. Usage of the EOD Range will be restricted, as follows:

12 hours per day
50 days/year
1 Open Burn operation per day
4 Open Detonation operations per day of any listed ordnance
Up to 23 additional Open Detonation operations per day of bombs containing tritonal (No. 10 and/or No. 42, see list at end of Environmental Performance Standards)

Burn and detonation events may occur on the same day.

8. At least once per quarter, the reef will be inspected for fragments and unexploded ordnance (UXO), with all identified items recovered from the water. The area inspected will be from the beach to the reef line, and 100 ft east and west of the OD area.

Open Burning/Open Detonation RCRA hazardous waste treatment waste materials restrictions

9. Any ordnance or other energetic material listed in Table III-7 of Appendix A may be burned or detonated, subject to limitations contained in Environmental Performance Standards number 19 and 21.

10. Any ordnance or other energetic material not listed in Table III-7 of Appendix A may be burned or detonated, if they do not contain metals or sulfur-bearing compounds, subject to limitations contained in Environmental Performance Standard numbers 19 and 21.

11. Waste ordnance or other energetic material not listed in Table III-7 of Appendix A which con-

tains metals or sulfur-bearing compounds, may be burned or detonated, subject to the maximum acceptable quantities specified by the tables listed in Tables III-1 or III-2.

Open Burning RCRA hazardous waste treatment operating restrictions

12. OB activities will occur in a suitable containment device.
13. The OB containment device will incorporate a coarse screen over the top of the device in order to minimize ejection of materials during OB treatment. Also, waste ordnance will be placed a minimum of 2 feet below the top of the device, and the containment device will be placed in a shallow depression in the sand.
14. The OB containment device will be inspected before and after each burn to ensure structural integrity.
15. The OB containment device will be turned upside down after each burn to prevent accumulation of precipitation.
16. Residues remaining in the OB containment device will be collected no later than the day after the burn, but before the device is turned upside down.
17. If precipitation accumulates in the OB containment device before residue can be removed, then an additional burn will take place to evaporate all moisture from the residue.

18. Residues ejected from the OB containment device will be collected no later than the day after the burn.

19. The maximum NEW for each OB event is 100 lbs, except for the following items (as numbered in Table III-7 of Appendix A):

    Restricted to 5 lbs (total): Nos. 10, 42, 43, 45, 50
    Restricted to 10 lbs (total): Nos. 36, 37, 38, 39, 40, 51
    Restricted to 50 lbs (total): No. 4

Open Detonation RCRA hazardous waste treatment operating restrictions

20. Residues remaining after detonation must be collected no later than 1 hour after the detonation is initiated.

21. The maximum NEW for each OD event is 600 lbs, except for the following items (as numbered in Table III-7 of Appendix A):

Total NEW (lbs) For OD Event	No. 95	Weight Restriction (lbs) No. 14 or 15
1	0.26	1.0
5	0.54	2.7
20	0.64	3.2
50	1.4	7.0
100	2.1	10
200	3.5	17
300	5.0	25
400	6.7	33
500	8.3	42
600	10.0	50

Restricted Open Burn items:

4 – 7.62 blank
18 – fuse, time
42 – detonator, percussion, M2A1
43 – detonator, percussion, M2A2
45 – detonator kit, M1
36 – firing device, M1
37 – firing device, demolition, M1A1
38 – firing device, demolition, M5
39 – firing device, demolition, M3
40 – firing device, demolition, M1
50 – primer, percussion, cap
29 – cratering charge M180

Restricted Open Detonation items:

14 – caps, electric blasting
15 – caps, non-electric blasting
95 – grenade, MK1, illuminating

* * * * *

THE UNITED STATES AIR FORCE

FINAL

OPEN BURN/OPEN DETONATION RANGE

GROUNDWATER MONITORING PLAN

FOR

ANDERSEN AIR FORCE BASE, GUAM

AUGUST 2015

* * * * *

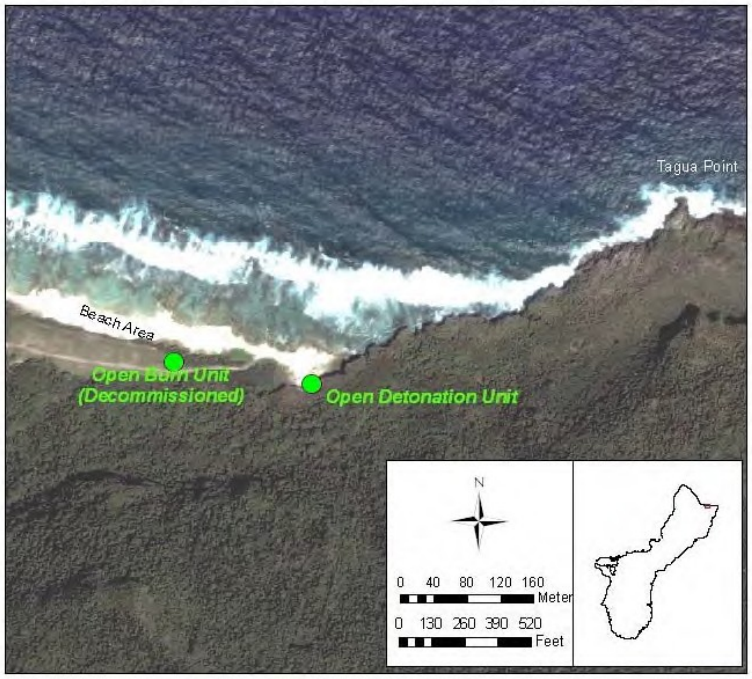
1.0 Introduction

1.1 *Site Introduction*

The mission of the Open Burn/Open Detonation (OB/OD) Range is to render unserviceable ordnance, other pyrotechnic devices, and waste munitions or explosive harmless by either open burning or open detonation. The OB/OD Range exists within the Explosive Ordnance Disposal (EOD) Range of Andersen Air Force Base (AAFB). Located at the extreme eastern sector of Tarague Beach on AAFB ending just before Tagua Point (Figure 1-1), the OB/OD Range is defined as the open beach area surrounded by the Pacific Ocean to the north and limestone forest in all other directions. The range has a 2,400 foot radius safety zone.

The active open detonation (OD) Unit is situated along the face of the cliff, which allows the projection of any residue from waste ammunition or explosive detonations away from occupied areas. The open burn (OB) Unit is located approximately 80 feet from the adjacent limestone forest and 180 feet from the ocean, was dismantled in 2007, and is currently non-operational.

Figure 1-1: Location Map of OB/OD Range, AAFB, Guam



* * * * *

2.0 AAFB and OB/OD Range Background

* * * * *

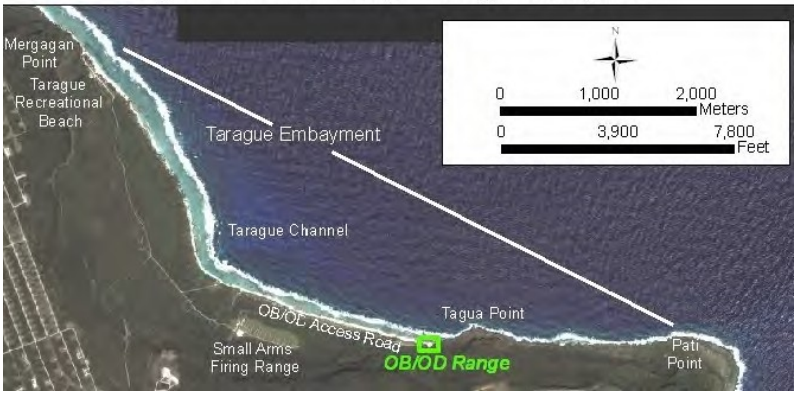
2.3 Land Use, Sensitive Receptors and Essential Habitats

The OB/OD Range is located in a locked, fenced area of AAFB, with restricted access and precludes the building or inhabitation of any permanent structures. Human receptors are limited to EOD personnel and wildlife that occasionally access/use this site. As such, human exposures to the OB/OD Range are limited (AAFB, 2006b).

2.4 Cultural Resources

The OB/OD Range is located within an area of the Tarague Historic District, which has been evaluated for inclusion in the National Register of Historic Places (Earth Tech, 2003). The Tarague Historic District is a group of archaeological sites located within the Tarague Embayment. The OB/OD Range is situated in the eastern portion of the Tarague Embayment as depicted in Figure 2-2 (AAFB, 2006b).

Figure 2-2: Location Map of Tarague Embayment



* * * * *

GUAM ENVIRONMENTAL PROTECTION AGENCY •
AHENSIAN PRUTEKSIÓN LINA'LA' GUÁHAN

LOURDES A. LEON GUERRERO • GOVERNOR OF GUAM •
JOSHUA F. TENORIO • LIEUTENANT GOVERNOR OF GUAM
• WALTER S. LEON GUERRERO • ADMINISTRATOR •
MICHELLE C R. LASTIMOZA • DEPUTY ADMINISTRATOR

[OCT. 15, 2021]

Brigadier General Jeremy T. Sloane
Commander 36th WG/CC
Andersen Air Force Base
Unit 14003
APO AP 96543-4003

RE: Notice of Preliminary Decision—Andersen Air Force Base, Guam Explosive Ordnance Disposal Open Burn/Open Detonation Facility Application

Hafa Adai General Slone,

This letter serves as an Administrative Record for Notice of Preliminary Decision to neither deny nor approve the aforementioned permit application. The Guam Environmental Protection Agency (Guam EPA) has been working with Andersen's Air Force Base (AAFB) Environmental Flight during the permit application process. The permit (new and renewal) process

includes Guam EPA's review for completeness, technical evaluation, drafting a permit, making the draft permit available to the public for review and comment, and a public hearing.

The AAFP EOD OB/OD Hazardous Waste Management Facility Permit expired on September 3, 2021. On March 17, 2021, Guam EPA received a request for extension to submit the permit renewal application until May 28, 2021. Guam EPA granted the extension request to be due by April 30, 2021. However, the permit renewal application was received on May 26, 2021. A Public Review and Comment Period from July 30, 2021, thru September 13, 2021, was published in the print media, and a Public Hearing was held on August 30, 2021, at this Agency. During the public comment period, Guam EPA received significant comments that warrant this Agency to address before making a final decision on the completeness and technical aspects of the permit renewal application.

Therefore, in accordance with Guam EPA Hazardous Waste Management Regulations Part X.A, which adopts by reference § 270.51(d), if a permittee has submitted a timely and complete application under applicable State law and regulations, the terms and conditions of an EPA-issued RCRA permit continues in force beyond the expiration date of the permit but only until the effective date of the State's issuance or denial of a State RCRA permit.

Should you have any questions or concerns with this letter please feel free to contact the Hazardous Waste Management Program at 671-300-4751/52.

Sincerely,

/s/ WALTER S. LEON GUERRERO
WALTER S. LEON GUERRERO
Administrator

Cc: Ms. Sarah Diebel, Environmental Flight Chief, 36 CES/CEV, AAFB
Ms. Conchita SN Taitano, Air & Land Programs Administrator, Guam EPA
Mr. Carl Goldstein, Guam Program Manager, USEPA Region 9
Ms. Dani Allen-Williams, Project Officer, USEPA Region 9
Mr. Mike Zabaneh, Environmental Engineer, USEPA Region 9
HWMP File/CHRONO

From: Rand, Matthew (ENRD)
To: David Henkin
Cc: Thien Chau; rachel@guamcounsel.com
Subject: RE: Activity in Case 1:22-cv-00001 Prutehi Litekyan: Save Ritidian vs. United States Department of the Air Force, et al. Motion to Dismiss
Date: Friday, April 29, 2022 12:10:36 PM

David,

After further review of your email below, I wanted to make an additional point of clarification. Nowhere in the motion to dismiss brief (ECF No. 19) do Defendants represent that the Air Force is not presently operating the Open Burn/Open Detonation Facility under the previous permit. As contemplated by RCRA, the Air Force continues to operate the Open Burn/Open Detonation Facility under the terms of the permit that expired on September 3, 2021. *See* 40 C.F.R. § 270.51(d).

Regards,

Matt

From: Rand, Matthew (ENRD)
Sent: Monday, April 18, 2022 5:22 PM
To: David Henkin <dhenkin@earthjustice.org>
Cc: tchau@earthjustice.org; rachel@guamcounsel.com
Subject: RE: Activity in Case 1:22-cv-00001 Prutehi Litekyan: Save Ritidian vs. United States Department of the Air Force, et al. Motion to Dismiss

David,

Thank you for your email. I have carefully reviewed our brief in support of the motion to dismiss and conferred with the client and believe there are no misrepresentations. You are welcome to raise any arguments you have about the Application and the Facility in your opposition to Defendants' motion to dismiss.

Regards,

Matt

From: David Henkin <dhenkin@earthjustice.org>
Sent: Monday, April 11, 2022 4:57 PM
To: Rand, Matthew (ENRD) <Matthew.Rand@usdoj.gov>
Cc: tchau@earthjustice.org; rachel@guamcounsel.com
Subject: [EXTERNAL] RE: Activity in Case 1:22-cv-00001 Prutehi Litekyan: Save Ritidian vs. United States Department of the Air Force, et al. Motion to Dismiss
Importance: High

Matt,

We are in receipt of your motion to dismiss (see below).

If we understand your motion correctly, the federal defendants are taking the position that, since September 3, 2021 (when the prior RCRA permit expired), no OB/OD operations can, have, or will take place at Andersen AFB unless and until Guam EPA issues a new RCRA permit. *See, e.g.*, ECF 19 at 3 (Air Force's submittal of it permit renewal application has no legal consequences because "[t]he Application does not allow Defendants to operate the OB/OD Facility; only the RCRA permit, which has not issued and which Plaintiff has not challenged, would authorize the allegedly harmful activity Plaintiff seeks to redress."); *id.* ("All of the harms Plaintiff alleges—such as potential damage to the beach on which the OB/OD Facility is located, *see* Compl. ¶ 15—are caused not by the Application, the only action Plaintiff challenges."); *id.* at 12 ("Defendants cannot on their own alter the status quo because without the permit, they cannot operate the Facility. *See* 42 U.S.C. § 6925(a)."); *id.* at 14 ("Because RCRA and the corresponding regulations explicitly bar Defendants from op-

erating the OB/OD Facility without a permit, . . . the Application itself does not allow Defendants to dispose of waste munitions.").

Our understanding is that, in fact, Andersen AFB has continued to operate the EOD Facility and conduct open detonation of munitions after September 3, 2021, when the prior RCRA permit expired. We further understand that the Air Force is justifying continued operation of the EOD Facility on the grounds that Andersen AFB's submittal of its application for renewal of its RCRA permit extended the terms and conditions of the expired permit until Guam EPA either grants a new RCRA permit or denies the Air Force's pending application. In other words, our understanding is that Defendants are continuing to operate the Andersen AFB EOD Facility precisely because they contend that the submittal of the renewal application gives them the legal right to do so.

If we are mistaken, and no munitions disposal operations have taken place at Andersen AFB's EOD Facility since September 3, 2021, and will not resume unless and until Guam EPA issues a new permit, please let us know, as that would affect our response to your pending motion to dismiss.

On the other hand, if we are not mistaken, then we respectfully submit that, as an officer of the Court, you are obliged to amend your motion to delete all arguments premised on the notion that the submittal of the Application has no legal consequences and that no harm related to OB/OD can or will occur unless and until a new permit is issued.

Thank you for your prompt attention to this time-sensitive matter. We are happy to find a time to discuss this matter.

Regards,

David Henkin
Senior Attorney
Earthjustice
850 Richards St., Suite 400
Honolulu, HI 96813
T: 808-599-2436
www.earthjustice.org