

# California Environmental Protection Agency Department of Toxic Substances Control HAZARDOUS WASTE FACILITY PERMIT

**Facility Name:** 

United States Air Force Vandenberg Air Force Base Vandenberg, CA 93437-5242

**Owner Name:** 

United States Air Force Vandenberg Air Force Base Vandenberg, CA 93437-5242

**Operator Name:** 

United States Air Force Vandenberg Air Force Base Vandenberg, CA 93437-5242 Facility EPA ID Number: CA9570025149

Effective Date: May 6, 2008

Expiration Date: May 5, 2018

Pursuant to California Health and Safety Code section 25200, this Resource Conservation and Recovery Act (RCRA)-equivalent Hazardous Waste Facility Permit is hereby issued to: Vandenberg Air Force Base

The Issuance of this Permit is subject to the terms and conditions set forth in Attachment A and the Part "B" Application (Operation Plan) dated August 2007. The Attachment A consists of 12 pages including Figures 1 and 2.

//Original signed by//

Raymond Leclerc, P.E., Leader Permitting Renewal Team Department of Toxic Substances Control

Date: May 6, 2008

# VANDENBERG AIR BASE VANDENBERG AFB, CALIFORNIA 93437

# **HAZARDOUS WASTE FACILITY PERMIT**

# **ATTACHMENT "A"**

# **TABLE OF CONTENTS**

PART	I. DEFINITIONS	1
DART	II. DESCRIPTION OF THE FACILITY AND OWNERSHIP	2
1.	Owner of Facility	2
2.	Owner of Real Property	
3.	Operator of Facility	
4.	Location	
5.	Description of Facility Operations	
6.	Facility History	
7.	Facility Size and Type for Fee Purposes	3
PART	III. GENERAL CONDITIONS	
1.	PERMIT APPLICATION DOCUMENTS	
2.	EFFECT OF PERMIT	4
3.	COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)	
4.	ENVIRONMENTAL MONITORING	5
5.	ANNUAL HAZARDOUS WASTE REDUCTION AND MINIMIZATION	_
_	CERTIFICATION	
6.	ACCESS	5
PART	IV. PERMITTED UNITS AND ACTIVITIES	7
	g. 'Y	
PART	V. SPECIAL CONDITIONS	9
PART	VI. CORRECTIVE ACTION10	/(
		-
FIGUE	RE 11	1
EIGH		2
	/ <b>-</b> /	_

# PART I. <u>DEFINITIONS</u>

All terms used in this Permit shall have the same meaning as those terms have in the California Health and Safety Code, division 20, chapter 6.5 and California Code of Regulations, title 22, division 4.5, unless expressly provided otherwise by this Permit.

- 1. "DTSC" as used in this Permit means the California Department of Toxic Substances Control.
- 2. "Facility" as used in this Permit means all contiguous land and structures, other appurtenances, and improvements on the land used for the treatment, transfer, storage resource recovery, disposal or recycling of hazardous waste. A hazardous waste facility may consist of one or more treatment, transfer, storage, resource recovery, disposal or recycling operational units or combinations of these units.

For the purpose of implementing corrective action under California Code of Regulations, title 22, division 4.5, a hazardous waste facility includes all contiguous property under the control of the owner or operator required to implement corrective action.

- 3. "Permittee" as used in this Permit means the Owner and Operator.
- 4. **"RCRA"** as used in this Permit means the Resource Conservation and Recovery Act (42 U.S.C. §6901 et seq.).

# PART II. DESCRIPTION OF THE FACILITY AND OWNERSHIP

# 1. Owner of Facility

United States Air Force Vandenberg Air Force Base 30 CES/CC Building 11442, Iceland Avenue Vandenberg AFB, California 93437

# Owner of Real Property

United States Air Force Vandenberg Air Force Base 30 CES/CC Building 11442, Iceland Avenue Vandenberg AFB, California 93437

# 3. Operator of Facility

United States Air Force Vandenberg Air Force Base 30 CES/CC Building 11442, Iceland Avenue Vandenberg AFB, California 93437

# 4. Location

Vandenberg Air Force Base (VAFB) is located on California's south-central coast 55 miles northwest of the City of Santa Barbara, County of Santa Barbara, California. Its nearest neighbors are the cities of Lompoc, located 7 miles to the southeast and Santa Maria, 17 miles to the northeast. It occupies more than 98,400 acres (154 square miles) along approximately 35 miles of Santa Barbara County coastline. Figure 1 is a Base Map showing the Hazardous Waste Management Unit which is the Explosive Ordnance Disposal (EOD) Range. The EOD Range is located west of the airfield runways on the northern portion of V AFB. Defined by a 2,500-foot diameter circular boundary, the EOD Range is approximately one mile west of the intersection of Mira and Tangair Roads and 300 feet south of Mira Road (Figure 2). The EOD Range Latitude is 34° 43' 09" and Longitude is 120° 35' 14". VAFB occupies portions of Townships T10N through T5N and Ranges R36W through R34W measured from the San Bernardino Base and Meridian.

# 5. <u>Description of Facility Operations</u>

VAFB is a national defense installation and is the headquarters of Air Force Space Command's 14th Air Force and 30th Space Wing. Several dozen Department of Defense (DOD) and non-DOD government organizations, and a similar number of private aerospace and other contractors carry out activities at the base. The hazardous wastes that are detonated are generated on-site at VAFB by DOD agencies, NASA, and associated contractors operating within the base boundaries. Propellant, explosive, and pyrotechnic (PEP) materials that require disposal as a result of expired shelf life or obsolescence and explosive wastes from training operations are detonated at the EOD Range. Also, PEP materials discovered on the base may be transported to the EOD Range for open detonation.

# 6. <u>Facility History</u>

VAFB is a major military and aerospace site. The first missile was launched from VAFB in December 1958. Since then, more than 1,700 intercontinental ballistic missiles (ICBMs) and polar-orbiting satellites have been launched. Currently, VAFB is the only U.S. military installation that actively launches ICBMs and polar-orbiting satellites.

VAFB obtained an Interim Status Document on December 18, 1981, and a hazardous waste facility permit issued by the California State Department of Health Services, the predecessor to DTSC, on July 29, 1986 to operate the drum storage unit (Building 3300). On May 3, 1990, VAFB was granted Interim Status by the United States Environmental Protection Agency (U.S. EPA) to operate the EOD Range.

DTSC issued a Hazardous Waste Facility Permit to VAFB for the drum storage unit and the EOD Range on May 6, 1996 with the effective date of June 13, 1996 and expiration date of June 13, 2006. This permit was modified on September 20, 2001 to address closure of drum storage unit, Building 3300, and the changes to the Facility's closure plan.

# 7. Facility Size and Type for Fee Purposes

The Facility is categorized as a small treatment facility pursuant to Health and Safety Code section 25205.1 and for purposes of Health and Safety Code sections 25205.2 and 25205.19.

# PART III. GENERAL CONDITIONS

# 1. PERMIT APPLICATION DOCUMENTS

The revised Part "A" Application dated December 17, 2007 and the revised Part "B" Application (Operation Plan) dated August 2007 (original submittal dated November 2005) are hereby made a part of this Permit by reference.

# 2. EFFECT OF PERMIT

- (a) The Permittee shall comply with the terms and conditions of this Permit and the provisions of the Health and Safety Code and California Code of Regulations (Cal. Code Regs.), title 22, division 4.5. The issuance of this Permit by DTSC does not release the Permittee from any liability or duty imposed by federal or state statutes or regulations or local ordinances, except the obligation to obtain this Permit. The Permittee shall obtain the permits required by other governmental agencies, including but not limited to, those required by the applicable land use planning, zoning, hazardous waste, air quality, water quality, and solid waste management laws for the construction and/or operation of the Facility.
- (b) The Permittee is permitted to treat hazardous wastes in accordance with the terms and conditions of this Permit. Any management of hazardous wastes not specifically authorized in this Permit is strictly prohibited.
- (c) Compliance with the terms and conditions of this Permit does not constitute a defense to any action brought under any other law governing protection of public health or the environment, including, but not limited to, one brought for any imminent and substantial endangerment to human health or the environment.
- (d) DTSC's issuance of this Permit does not prevent DTSC from adopting or amending regulations that impose additional or more stringent requirements than those in existence at the time this Permit is issued and does not prevent the enforcement of these requirements against the Permittee.
- (e) Failure to comply with any term or condition set forth in the Permit in the time or manner specified herein will subject the Permittee to possible enforcement action including but not limited to penalties pursuant to Health and Safety Code section 25187.
- (f) Failure to submit any information required in connection with the Permit,

or falsification and/or misrepresentation of any submitted information, is grounds for revocation of this Permit (Cal. Code Regs., tit. 22, §66270.43).

- (g) In case of conflicts between the Operation Plan and the Permit, the Permit conditions take precedence.
- (h) This Permit includes and incorporates by reference any conditions of waste discharge requirements issued to the Facility by the State Water Resources Control Board or any of the California Regional Water Quality Control Boards and any conditions imposed pursuant to section 13227 of the Water Code.

# 3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A Negative Declaration has been prepared in accordance with the requirements of Public Resources Code Section 21000 et seq. and the CEQA Guidelines, section 15070 et seq. of California Code of Regulations, title 14.

# 4. ENVIRONMENTAL MONITORING

The Permittee shall comply with the applicable environmental monitoring and response program requirements of California Code of Regulations, title 22, division 4.5, chapter 14, articles 6 and 17.

# 5. <u>ANNUAL HAZARDOUS WASTE REDUCTION AND MINIMIZATION</u> CERTIFICATION

The Permittee shall certify annually that it has a hazardous waste reduction and minimization program and method in place and shall keep the annual certification as part of its Operating Record in accordance with California Code of Regulations, title 22, section 66264.73(b)(9).

# 6. <u>ACCESS</u>

(a) DTSC, its contractors, employees, agents, and/or any United State Environmental Protection Agency representatives are authorized to enter and freely move about the Facility for the purposes of interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts relating to the Facility; reviewing progress of the Permittee in carrying out the terms of Part VI of the Permit; conducting such testing, sampling, or monitoring as DTSC deems necessary; using a camera, sound recording, or other documentary-type equipment; verifying the reports and data submitted to DTSC by the Permittee; or confirming any

other aspect of compliance with this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5. The Permittee shall provide DTSC and its representatives access at all reasonable times to the Facility and any other property to which access is required for implementation of any provision of this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5, and shall allow such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to the entire Permit or undertake any other activity necessary to determine compliance with applicable requirements.

(b) Nothing in this Permit shall limit or otherwise affect DTSC's right to access and entry pursuant to any applicable State or federal laws and regulations.

# PART IV. PERMITTED UNITS AND ACTIVITIES

This Permit authorizes operation only of the facility units and activities listed below. The Permittee shall not treat, store or otherwise manage hazardous waste in any unit other than those specified in this Part IV. Any modifications to a unit or activity authorized by this Permit require the written approval of DTSC in accordance with the permit modification procedures set forth in California Code of Regulations, title 22, division 4.5.

# **UNIT NAME:**

Explosive Ordnance Disposal (EOD) Range

# LOCATION:

The EOD Range is located in a remote area west of the airfield runways on the northern portion of VAFB. The EOD Range consists of a 2,500-foot-radius, unfenced area with warning signs placed every 300 feet along its perimeter. The detonation area is located within a 200-foot-radius cleared area near the center of the EOD Range. The EOD Range is located near Building 1560 south of Mira Road. Most of the area defined by this boundary is designated as a buffer zone for safety reasons. A warning sign is also posted at the entrance to the EOD Range.

The EOD range is surrounded by largely undisturbed, natural habitat areas that contain the range of animal and plant species that are typical of the coastal areas of the Central California Coast. The nearest off-Base residents to the EOD range are about four miles away to the southeast.

#### **ACTIVITY TYPE:**

Open Detonation

#### ACTIVITY DESCRIPTION:

The EOD Range is used to detonate propellants, explosives, and pyrotechnic (PEP) materials, which are highly reactive. The hazardous wastes that are detonated are generated onsite at VAFB.

Detonation of PEP materials is conducted on a clear area behind earthen berms. There are no physical structures or treatment equipment involved in the detonation operation. Batches of PEP materials that are detonated are prepared by Permittee's personnel who are knowledgeable about the Department of Defense (DOD) ordnance disposal technical requirements and practices. The objective of the operation is the complete destruction of the item being detonated. Generally, no undetonated materials remain. Any remaining undetonated PEP materials would be detonated once more to

ensure complete destruction. When the operation is complete, there should be nothing left except a crater at the detonation point. Over the past few years, range operations (episodes) have averaged about one to two per month.

The EOD range does not have any facilities for controlling surface drainage. Rain water is allowed to percolate into the ground. The ground surface at the detonation area is graded at 6-month intervals. Minor depressions exist as a result of rough grading. Craters caused by disposal activities are filled in by grading as they occur. The Permittee samples the soil and groundwater at the EOD Range to monitor any release of hazardous waste into the environment.

# PHYSICAL DESCRIPTION:

The detonation activity is conducted on a portion of the EOD Range. The actual detonation area is at the center of a relatively flat, cleared area with a radius of approximately 200 feet directly to the west of Building 1560, located within the EOD Range. Building 1560 is an earth reinforced bunker used for personnel protection during disposal operations and is also used for storage of equipments (fire extinguishers, phone, first aid kit, shovels, and hand tools). The building itself is cylindrical and is of steel construction, and it is the only building within the EOD Range. The building is located 500 feet from the blast area.

# MAXIMUM CAPACITY:

The following are the maximum allowable explosive quantities authorized by this Permit: maximum quantity/ episode - 250 lbs (cased explosives) or 500 lbs (uncased explosives); maximum quantity/day - 500 lbs; maximum quantity/month - 1,500 lbs; maximum annual quantity - 8,000 lbs.

# **WASTE TYPES:**

Unexploded propellant, explosive, and pyrotechnic materials. These materials include obsolete ordnance, explosive waste from training operations, materials with an expired shelf life, or explosive waste discovered on base.

# RCRA HAZARDOUS WASTE CODES:

D001, D002, D003, D005, D007, D008, D011

# Typical Hazardous Wastes Handled (Please see the approved Operation Plan, Appendix D)

Waste Category	Waste Description	EPA Waste Code	California Waste Code	Estimated Maximum Annual Generated Quantity (pounds)	Process (HWMU)
1. Ignitable Waste	Propellants, explosives and pyrotechnics	D003, D005, D007, D008,	352, 331, 181, 141	8,000	Open Detonation
2. Lead Containing Wastes	Propellants, explosives and pyrotechnics	D001, D002, D011	121	Included with above	Open Detonation

# **CALIFORNIA HAZARDOUS WASTE CODES:**

121, 141, 181, 331, 352

# **UNIT-SPECIFIC SPECIAL CONDITIONS:**

- 1. The Permittee shall not place any PEP materials on the EOD Range during the detonation activity other than those being detonated.
- 2. The Permittee shall not conduct any detonation activity during the low light hours, at night, during rain event or when there is lightning within 5.75 nautical miles.

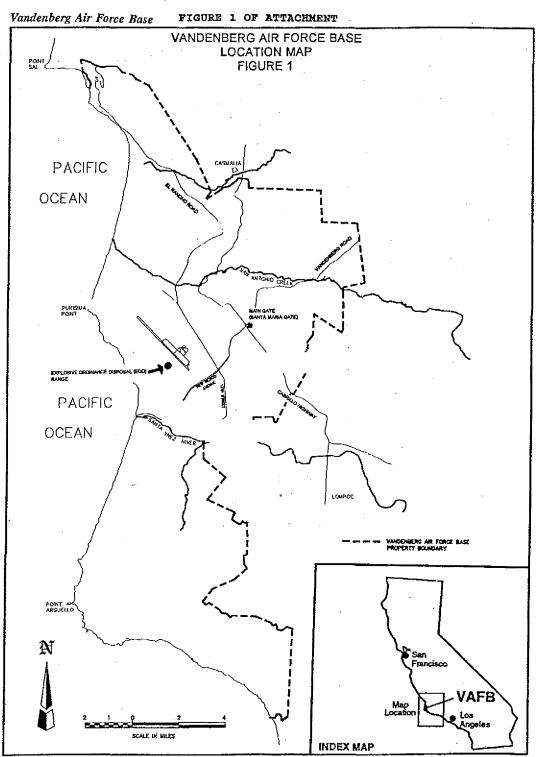
# PART V. <u>SPECIAL CONDITIONS</u>

- 1. The Permittee shall submit a soil and groundwater sampling plan for the EOD Range for DTSC's approval within 90 days of the effective date of this permit.
- 2. The Permittee shall conduct soil and groundwater sampling and analysis for the EOD Range in accordance with the DTSC approved sampling and analysis plan and schedule.

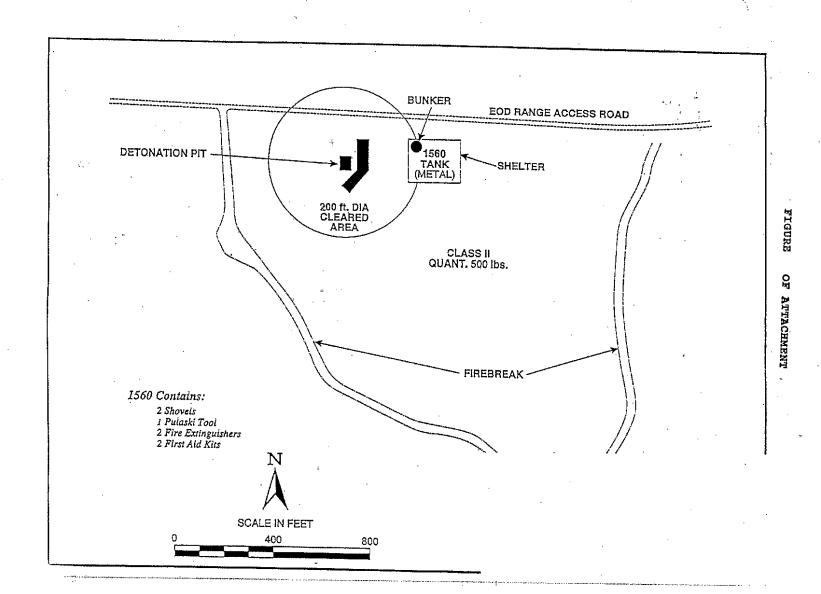
# PART VI. CORRECTIVE ACTION

The Permittee shall conduct corrective action at the Facility pursuant to Health and Safety Code, sections 25187 and 25200.10. Corrective action shall be carried out under the Federal Facility Site Remediation Agreement (FFSRA) entered into between DTSC and the U.S. Department of Air Force for the Facility. Pursuant to the FFSRA, the Permittee's satisfactory performance under the FFSRA will be deemed acceptable by DTSC to meet the corrective action requirements imposed by the State law and regulations. DTSC may require the Permittee to conduct additional corrective action if necessary.

FIGURE 1



# FIGURE 2



# VANDENBERG AIR BASE VANDENBERG AFB, CALIFORNIA 93437

# **HAZARDOUS WASTE FACILITY PERMIT**

# ATTACHMENT "A"

# **TABLE OF CONTENTS**

PART	I. DEFINITIONS	1
	II. DESCRIPTION OF THE FACILITY AND OWNERSHIP	
1.	Owner of Facility	2
2.	Owner of Real Property	
3.	Operator of Facility	
4.	Location	
5.	Description of Facility Operations	
6. 7.	Facility History  Facility Size and Type for Fee Purposes	ა 3
		Ī
PART	III. GENERAL CONDITIONS	4
1.	PERMIT APPLICATION DOCUMENTS	
2.	EFFECT OF PERMIT	4
3.	COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)	5
4.	ENVIRONMENTAL MONITORING	5
5.	ANNUAL HAZARDOUS WASTE REDUCTION AND MINIMIZATION	
	CERTIFICATION	5
6.	ACCESS	
PART	IV. PERMITTED UNITS AND ACTIVITIES	7
PART	V. SPECIAL CONDITIONS	9
PART	VI. CORRECTIVE ACTION	) <u>/</u>
	RE 11	,
rigut	XE 1	I
FIGUE	RE 21	2

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- or falsification and/or misrepresentation of any submitted information, is grounds for revocation of this Permit (Cal. Code Regs., tit. 22, §66270.43).
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# 5. <u>ANNUAL HAZARDOUS WASTE REDUCTION AND MINIMIZATION</u> <u>CERTIFICATION</u>

The Permittee shall certify annually that it has a hazardous waste reduction and minimization program and method in place and shall keep the annual certification as part of its Operating Record in accordance with California Code of Regulations, title 22, section 66264.73(b)(9).

#### 6. <u>ACCESS</u>

(a) DTSC, its contractors, employees, agents, and/or any United State Environmental Protection Agency representatives are authorized to enter and freely move about the Facility for the purposes of interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts relating to the Facility; reviewing progress of the Permittee in carrying out the terms of Part VI of the Permit; conducting such testing, sampling, or monitoring as DTSC deems necessary; using a camera, sound recording, or other documentary-type equipment; verifying the reports and data submitted to DTSC by the Permittee; or confirming any other aspect of compliance with this Permit, Health and Safety Code,

division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5. The Permittee shall provide DTSC and its representatives access at all reasonable times to the Facility and any other property to which access is required for implementation of any provision of this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5, and shall allow such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to the entire Permit or undertake any other activity necessary to determine compliance with applicable requirements.

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#### PART IV. PERMITTED UNITS AND ACTIVITIES

This Permit authorizes operation only of the facility units and activities listed below. The Permittee shall not treat, store or otherwise manage hazardous waste in any unit other than those specified in this Part IV. Any modifications to a unit or activity authorized by this Permit require the written approval of DTSC in accordance with the permit modification procedures set forth in California Code of Regulations, title 22, division 4.5.

#### **UNIT NAME:**

Explosive Ordnance Disposal (EOD) Range

## LOCATION:

The EOD Range is located in a remote area west of the airfield runways on the northern portion of VAFB. The EOD Range consists of a 2,500-foot-radius, unfenced area with warning signs placed every 300 feet along its perimeter. The detonation area is located within a 200-foot-radius cleared area near the center of the EOD Range. The EOD Range is located near Building 1560 south of Mira Road. Most of the area defined by this boundary is designated as a buffer zone for safety reasons. A warning sign is also posted at the entrance to the EOD Range.

The EOD range is surrounded by largely undisturbed, natural habitat areas that contain the range of animal and plant species that are typical of the coastal areas of the Central California Coast. The nearest off-Base residents to the EOD range are about four miles away to the southeast.

# **ACTIVITY TYPE:**

Open Detonation

# **ACTIVITY DESCRIPTION:**

The EOD Range is used to detonate propellants, explosives, and pyrotechnic (PEP) materials, which are highly reactive. The hazardous wastes that are detonated are generated onsite at VAFB.

Detonation of PEP materials is conducted on a clear area behind earthen berms. There are no physical structures or treatment equipment involved in the detonation operation. Batches of PEP materials that are detonated are prepared by Permittee's personnel who are knowledgeable about the Department of Defense (DOD) ordnance disposal technical requirements and practices. The objective of the operation is the complete destruction of the item being detonated. Generally, no undetonated materials remain. Any remaining undetonated PEP materials would be detonated once more to ensure

complete destruction. When the operation is complete, there should be nothing left except a crater at the detonation point. Over the past few years, range operations (episodes) have averaged about one to two per month.

The EOD range does not have any facilities for controlling surface drainage. Rain water is allowed to percolate into the ground. The ground surface at the detonation area is graded at 6-month intervals. Minor depressions exist as a result of rough grading. Craters caused by disposal activities are filled in by grading as they occur. The Permittee samples the soil and groundwater at the EOD Range to monitor any release of hazardous waste into the environment.

#### PHYSICAL DESCRIPTION:

The detonation activity is conducted on a portion of the EOD Range. The actual detonation area is at the center of a relatively flat, cleared area with a radius of approximately 200 feet directly to the west of Building 1560, located within the EOD Range. Building 1560 is an earth reinforced bunker used for personnel protection during disposal operations and is also used for storage of equipments (fire extinguishers, phone, first aid kit, shovels, and hand tools). The building itself is cylindrical and is of steel construction, and it is the only building within the EOD Range. The building is located 500 feet from the blast area.

#### MAXIMUM CAPACITY:

The following are the maximum allowable explosive quantities authorized by this Permit: maximum quantity/ episode - 250 lbs (cased explosives) or 500 lbs (uncased explosives); maximum quantity/day - 500 lbs; maximum quantity/month - 1,500 lbs; maximum annual quantity - 8,000 lbs.

#### WASTE TYPES:

Unexploded propellant, explosive, and pyrotechnic materials. These materials include obsolete ordnance, explosive waste from training operations, materials with an expired shelf life, or explosive waste discovered on base.

#### RCRA HAZARDOUS WASTE CODES:

D001, D002, D003, D005, D007, D008, D011

# Typical Hazardous Wastes Handled (Please see the approved Operation Plan, Appendix D)

Waste Category	Waste Description	EPA Waste Code	California Waste Code	Estimated Maximum Annual Generated Quantity (pounds)	Process (HWMU)
1. Ignitable Waste	Propellants, explosives and pyrotechnics	D003, D005, D007, D008,	352, 331, 181, 141	8,000	Open Detonation
2. Lead Containing Wastes	Propellants, explosives and pyrotechnics	D001, D002, D011	121	Included with above	Open Detonation

# **CALIFORNIA HAZARDOUS WASTE CODES:**

121, 141, 181, 331, 352

# **UNIT-SPECIFIC SPECIAL CONDITIONS:**

- 1. The Permittee shall not place any PEP materials on the EOD Range during the detonation activity other than those being detonated.
- 2. The Permittee shall not conduct any detonation activity during the low light hours, at night, during rain event or when there is lightning within 5.75 nautical miles.

# PART V. <u>SPECIAL CONDITIONS</u>

- 1. The Permittee shall submit a soil and groundwater sampling plan for the EOD Range for DTSC's approval within 90 days of the effective date of this permit.
- The Permittee shall conduct soil and groundwater sampling and analysis for the EOD Range in accordance with the DTSC approved sampling and analysis plan and schedule.

# PART VI. CORRECTIVE ACTION

The Permittee shall conduct corrective action at the Facility pursuant to Health and Safety Code, sections 25187 and 25200.10. Corrective action shall be carried out under the Federal Facility Site Remediation Agreement (FFSRA) entered into between DTSC and the U.S. Department of Air Force for the Facility. Pursuant to the FFSRA, the Permittee's satisfactory performance under the FFSRA will be deemed acceptable by DTSC to meet the corrective action requirements imposed by the State law and regulations. DTSC may require the Permittee to conduct additional corrective action if necessary.

FIGURE 1

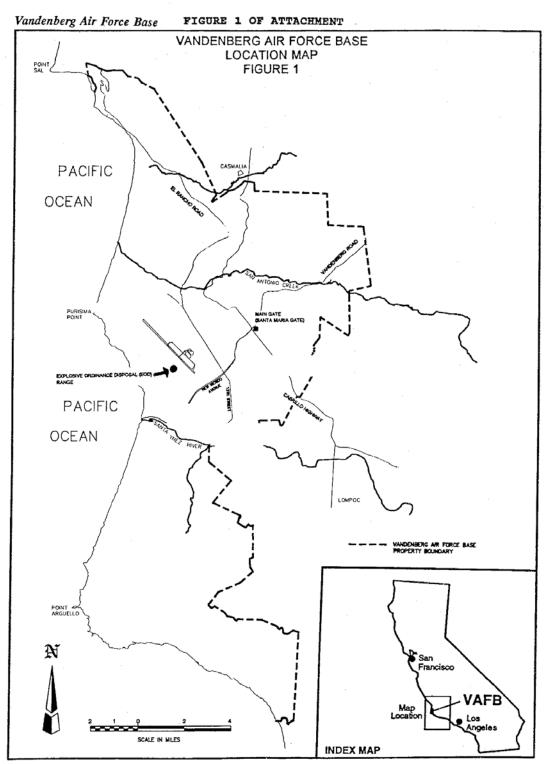


FIGURE 2

