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**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

June 19, 1998

Howard E. Moffitt
Deputy Base Civil Engineer
49 CES/CEV
550 Tabosa Avenue
Holloman Air Force Base, N.M. 88330-8458



**RE: APPROVAL OF CLASS 1 PERMIT MODIFICATION FOR OD UNIT
EPA I.D. Number NM6572124422**

Dear Mr. Moffitt:

The New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau (HRMB) has completed its review of Holloman Air Force Base's (HAFB's) request for a Class 1 permit Modification to the Open Detonation (OD) Treatment Unit. The HRMB acknowledges receipt of the one thousand (1,000.00) dollars permit modification fees submitted by HAFB.

As proposed in your Modification Request of February 10, 1998 you intend to carry out the following changes:

- 1) re-define the boundary of the OD unit as shown on the attached map;
- 2) conduct RCRA corrective measures for the northern section of the bermed area that extends into White Sands Missile Range property;
- 3) clarify the type and origin of waste to be treated;
- 4) establish protocol for emergency detonation events; and
- 5) revise the quarterly sampling procedure.

Based upon the above information which HAFB supplied to the HRMB, the NMED hereby approves the Class I permit modification for the HAFB OD Treatment Unit. The effective date of the approval is the day you receive this letter.

Mr. Moffitt, HAFB
Page 2
June 19, 1998

The proposed Class 1 changes made (indicated by highlights and strikeouts) to the applicable portions of the OD operational permit are shown on the first three (3) sheets of the attached pages. The last five (5) sheets without the highlights and strikeouts are the corrected portions of the permit text with the modifications incorporated. These pages must be inserted into the OD Permit at the appropriate places.

These changes have been incorporated into the HAFB operational permit text of February 3, 1997, **EPA I.D. Number NM6572124422**. You are required to incorporate the enclosed copies of the permit modification into HAFB's copy of the OD Permit originally issued by NMED. Further, HAFB is required to send a notice of the modification to all persons on the enclosed facility mailing list. This notification must be made within 90 calendar days after the change is put into effect in compliance with New Mexico Hazardous Waste Management Regulations 20 NMAC 4.1.900 incorporating 40 CFR §270.42(a)(1)(ii).

If you have any questions regarding the modification, please call Dr. Robert "Stu" Dinwiddie or Mr. Cornelius Amindyas at (505) 827-1563.

Sincerely,

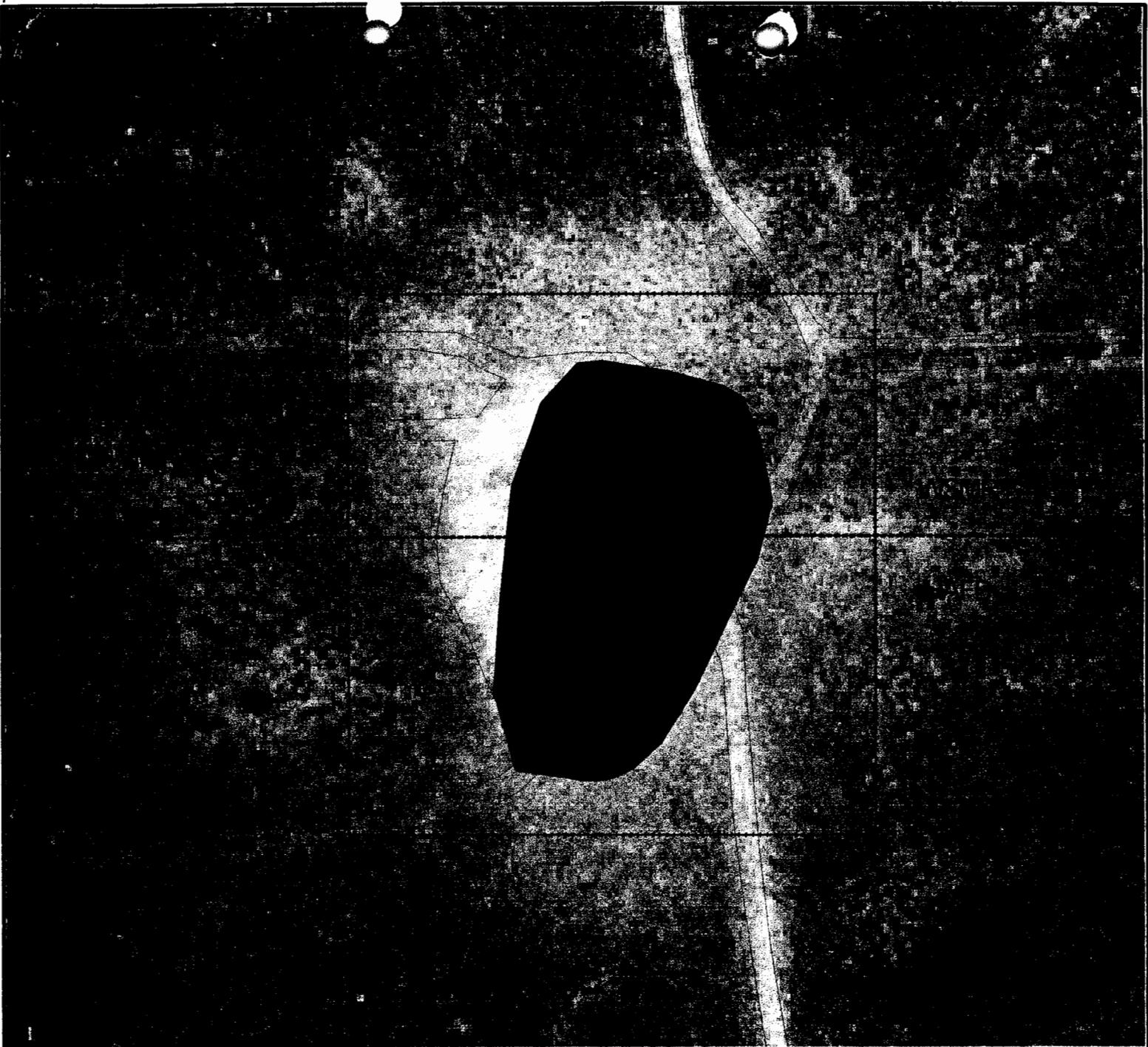


Ed Kelley, Ph.D., Director
Water and Waste Management Division

Enclosures

cc: Benito Garcia, Chief HRMB (w/o encl.)
David Neleigh, EPA Region [6PD-N] (w/o encl.)
Stu Dinwiddie, Manager RCRA Permits Management Program

Files: Red, 98
Track: HAFB, 6/19/98, HAFB, HRMB/CA, Approval of Permit Mod.



Prepared 10 February 1998 by:
 Drew Lessard, 49 CES/CEVR
 505 475-5177

FIGURE G-2a HAFB 20,000# ODU



- * ODU Closure Sample Locations
- ▲ HAFB Boundary
- △ Road Edge
- 20,000 # ODU Unit
- Existing
- Proposed

50 0 50 100 150 Feet

INSTALLATION RESTORATION PROGRAM
 Holloman Air Force Base, NM

Managed by the IRP Office - (505) 475-5177

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HOLLOMAN AIR FORCE BASE: CLASS I PERMIT MODIFICATION

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**PROPOSED HOLLOMAN AIR FORCE BASE OPEN
DETONATION UNIT PERMIT MODIFICATION**

MAY 1998

**PROPOSED PERMIT MODIFICATION TO THE HOLLOMAN AIR FORCE BASE
(HAFB) OPEN DETONATION TREATMENT UNIT
EPA I.D. Number: NM657124422.**

Modifications made to the HAFB Open Detonation (OD) Treatment Unit Permit issued to HAFB on February 3, 1997 are indicated as follows: Shaded areas indicate added material, while strikeouts indicate deleted material.

ITEM # 1: Updated Map of HAFB Open Detonation Treatment Unit

The attached Map (**Figure G-2a**) shall be incorporated into Permit Attachment G between pages G-4 and G-5 of the text. In addition, the following changes have been made to the first sentence of the last paragraph on Page 4 of Permit Attachment G:

The 20,000-Pound OD Unit consists of a clear zone approximately 400 feet in diameter (**Figure G-2a**)

ITEM # 2: Closure of Northern Portion of the OD Unit

Holloman Air Force Base shall conduct closure of the OD unit that extends into White Sands Missile Range in accordance with the Permit requirements specified in Module II, Section K, page 7, titled "General Closure Requirements".

ITEM # 3: Procedure for Obtaining an Emergency Permit for Treatment of confiscated contraband at the OD unit

HAFB shall follow the requirements specified in Module I, Permit Conditions E.14.a through E.14.c. These standards require HAFB to inform the new Mexico Environment Department (NMED) orally within 24 hours of handling the emergency (noncompliance) and to send a written account of the same to the Department within 5 days.

ITEM # 4: Sampling Time:

HAFB proposes to sample the first detonation event of each quarter rather than the last detonation event of each quarter. The following changes have been made to Module III, page 5, Permit Condition I.4.:

- I.4. The Permittee shall **sample the first open detonation event of each quarter.** ~~carry out quarterly soil sampling within 72 hours after the last quarterly Open Detonation event.~~ The soil sampling shall be preceded by an inspection of the OD Unit and removal of any unexploded ordnance by trained Ordnance Disposal personnel.

In addition, the following changes have been made to Permit Attachment J, the first sentence on page 2, second paragraph:

Background Sampling:

For operations monitoring purposes, soil at the OD Unit will be sampled ~~quarterly~~ following the first detonation event of each ~~quarter~~ using a stratified random sampling approach.

APPROVED PERMIT MODIFICATION TEXT FOR
INCORPORATION INTO THE ORIGINAL PERMIT

OPEN DETONATION TREATMENT UNIT PERMIT
MODIFICATION, HOLLOMAN AIR FORCE BASE

MAY 1998

Currently, HAFB hosts the Air Combat Command (ACC) 49th Fighter Wing, which includes pilot training, mobility support, and combat support operations. The primary Air Force Materiel Command (AFMC) component located at HAFB is the 46th Test Group, which is responsible for evaluation of propulsion and navigational systems for aircraft, space vehicles and missiles. A variety of tenant organizations are assigned to HAFB including the 4th Space Warning Squadron, the New Mexico State University Primate Research Laboratory, and Detachment 4, the 50th Weather Squadron. A general layout of the facility is provided in Figure G-2.

As a result of ACC readiness requirements and the 46th Test Group activities, a variety of ordnance, munitions, incendiaries, and propellants become waste because of exceedence of shelf-life, unanticipated deterioration, or failure to attain specifications that render the device non-serviceable. These waste explosives are considered characteristically hazardous under the Resource Conservation and Recovery Act (RCRA) due to reactivity (D003). Rocket motors that exceed 300 lbs are treated at the 20,000-Pound Open Detonation Unit that is the subject of this permit. These units are regulated under 40 CFR 264, Subpart V §264.600.

The 20,000-Pound OD Unit derives its name from the relevant operating procedures for this treatment activity. The net explosive weight (NEW) of solid propellant rocket motors that are, and will be simultaneously treated in the trench is limited to 20,000 lbs (i.e., 20,000 lbs per treatment event). This total does not include the mass of the casings, other associated containment devices, and detonating charges. Although the precise number of treatment occurrences during any year is variable, discrete treatment events will occur at typical frequencies of at least one event per month, giving a total of 450,000 pounds NEW per calendar year. More specific information on ordnance constituents, the OD Unit, and operating procedures is provided in future sections.

The 20,000-Pound OD Unit consists of a clear zone approximately 400 feet in diameter (Figure G-2a). Treatment of the wastes is accomplished by placing the explosive ordnance on top of the ground within a 100-ft diameter area at the center of the clear zone. The waste is then treated by detonation. The force of the explosion often creates a depression in the ground, which is inspected to ensure that the waste has been completely destroyed. Unexploded ordnance (UXO) that may have been ejected from the depression is collected and returned to the depression and exploded again to treat the UXO. Casings and fragments that do not have UXO are collected and containerized. Subsequent detonations are performed at locations surrounding the first depression within the 100-ft diameter detonation area.

H.5. The Permittee must carry out OD activities in compliance with the safety precautions contained in the Standard Operating Procedures, Permit Attachment I.

I. SAMPLING AND ANALYSIS FOR AIR AND SOIL MONITORING

- I.1. The Permittee shall evaluate the potential impact of the air pollutants on human health before, during, and after OD operations by screening and assessment in compliance with 20 NMAC 4.1, Subpart V, 40 CFR §264.601(c)(5), as per U.S. Army Environmental Hygiene Agency Publication and/or U.S. EPA approved models.
- I.2. The permittee shall specify the types and schedules of air monitoring required and the instrumentation required, and should include a Sampling and Analysis Plan and present the findings to the NMED Secretary once a year. This shall be conducted when soil sampling indicates the potential of hazardous waste constituents to impact ground water.
- I.3. The Permittee shall conduct soil sampling and analysis program in accordance with Permit Attachment J as required by 20 NMAC 4.1, Subpart V, §40 CFR 264.278 and §264.601(b)(1)(8)(11).
- I.4. The Permittee shall sample the first open detonation event of each quarter. The soil sampling shall be preceded by an inspection of the OD Unit and removal of any unexploded ordnance by trained Ordnance Disposal personnel.
- I.5. The Permittee shall implement a quarterly soil sampling and analysis program as described in Permit Attachment J of this permit text.
- I.6. The Quality Assurance/Quality Control program to be implemented shall be as contained in Permit Attachment J, which is included herein.

J. CLIMATIC CHARACTERISTICS OF THE OD UNIT AND PROCEDURES FOR PROTECTION OF HUMAN HEALTH AND ENVIRONMENTAL MEDIA.

- J.1. The Permittee shall not carry out Open Detonation operations when there is unauthorized personnel on the OD Treatment Unit.

Background Sampling

Prior to any routine monitoring, one round of six background soil samples will be collected at a distance of between 500 feet and 1000 feet from the OD Unit boundary. These samples will serve to characterize conditions of soil similar to the OD Unit but unaffected by past OD activities.

For operations monitoring purposes, soil at the OD Unit will be sampled following the first detonation event of each quarter using a stratified random sampling approach. Discrete samples of near surface soil will be collected from random locations within each strata from a depth of about 6 inches, and analyzed for explosive and metal constituents. There will be no compositing of samples. Analytical results will be compared to background results and calculated risk-based concentrations to determine whether operations at the OD Unit are affecting soils at the site.

In the event that HAFB terminates operations of the OD Unit, a final round of sampling will be completed. Closure sampling and analysis will use the same decision criteria as operations sampling and will also incorporate previous sampling results.

Data Quality Objectives

Data quality objectives (DQOs) are statements that define the type, quantity, and quality of data necessary to address a problem before a study begins. The EPA has published a seven-step process to DQO development as guidance (U.S. EPA, 1993). These seven steps have been designed to allow owners/operators of treatment, storage, and disposal facilities to define their data requirements and acceptable levels of decision errors during planning, before the data is collected. Following the DQO process ultimately leads to a more efficient data collection design. Table J.1-1 describes each of the seven steps as will be applied by HAFB to conduct monitoring of contaminant constituents at the OD Unit.



DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 49TH FIGHTER WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO

JS

10 FEB 1998

MEMORANDUM FOR NEW MEXICO ENVIRONMENT DEPARTMENT

Attn: Mr. Robert S. (Stu) Dinwiddie
Hazardous and Radioactive Materials Bureau
2044 Galisteo
P.O. Box 26110
Santa Fe NM 87502

FROM: 49 CES/CD
550 Tabosa Avenue
Holloman AFB NM 88330-8458



SUBJECT: Request to Administratively Amend the Holloman AFB (HAFB) Resource Conservation and Recovery Act (RCRA) Permit for Open Detonation Treatment Unit ID No. NM657124422

1. This is to request that the RCRA Permit for the 20,000 Pound Open Detonation Treatment Unit at HAFB be amended through administrative methods to address the following issues: update the actual location of the facility, address partial closure of the northern section of the bermed area, clarify type and origin of material to be treated, establish protocol for emergency detonation events, and revise the quarterly sampling procedure. HAFB would like to meet with you and your representatives before 6 Mar 98 to discuss the topics detailed below.
2. Recently, the Explosive Ordnance Disposal (EOD) Manager reviewed one of the several maps from the 20,000 Pound Open Detonation Unit (ODU) RCRA Permit and questioned the accuracy of the map. HAFB personnel then reviewed the permit and found that there are some variations between permit maps. Base personnel utilized recently-acquired Global Positioning System (GPS) equipment to verify the actual location of the ODU. The GPS results show the ODU is slightly north of the area depicted in the originally-submitted permit map questioned by EOD personnel. The actual location of the ODU was initially sited inside the existing fenced area. This fenced area was not initially sited with the aid of GPS technology. We would like to update the permit and insert a more accurate map of the site (similar to the one attached and referenced in Para 3).
3. The ODU permit requires continued grading of the ODU grounds and upkeep of the berm after each detonation event. Meeting these permit requirements, EOD personnel have inadvertently extended the perimeter of the bermed area from approximately 120 feet in diameter to an area approximately 250 feet east to west by 450 feet north to south. This area was extended north from the original location of the ODU because of the additional area available in the northern portion of the fenced zone (attached map). Due to this expanding and the initial siting

ambiguities of the unit, it currently extends on to White Sands Missile Range (WSMR) property by approximately 150 feet. HAFB proposes to follow closure procedures specified in the 20,000 Pound ODU RCRA permit for the northern section of the ODU which extends on to WSMR. Closure of this area would reduce the size of the unit to initially-designed dimensions and configuration. HAFB recently initiated closure sampling of the northern area. Approximate locations of the sampling are shown on the attached map. If the sample results show the area to be at or below background levels determined by the Background Study for the 20,000 pound ODU, then HAFB will initiate clean closure activities. Clean closure consists of covering this area with 6 to 12 inches of local soil material to match surrounding grade and would complete the closure process. The remaining ODU area would be located solely on HAFB property. We would also relocate the northern boundary of the fence to preclude the reoccurrence of gradual creep.

4. We would also like the procedure for obtaining an emergency permit for treatment at the ODU to be clarified, including a general statement regarding the treatment of confiscated contraband. This may include a general description of contraband and approval to detonate it in the emergency detonation permit section. Additionally, we would like to include a list of NMED phone numbers to call 24 hours a day to obtain an oral authorization emergency detonation permit.

5. As you may know, HAFB has experienced difficulties in the past meeting the permit requirement of sampling the last detonation event of each quarter. This is due to unavoidable schedule changes which can postpone the last scheduled quarterly detonation event to the next quarter. We feel the best way to correct this is to sample the first detonation event of each quarter. This change would clarify the sampling process and assure we sample the ODU soil each quarter in which a scheduled detonation event occurs. Utilizing this sampling schedule, there would be no reduction of sampling events.

6. Please contact Drew Lessard at (505) 475-5177 with your preferred meeting dates, referred in paragraph 1.


HOWARD E. MOFFITT
Deputy Base Civil Engineer

Attachment:
Map of HAFB 20,000# ODU

cc w/Atch:
Cornelius Amindyas
Hazardous and Radioactive Materials Bureau, NMED
P.O. Box 26110
Santa Fe NM 87502