



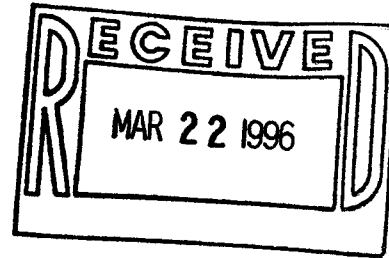
DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFMC)

ENTERED

20 March 1996

377 ABW/EMC
2000 Wyoming SE
Kirtland AFB, New Mexico 87117-5659

Barbara Hoditschek
New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
2044A Galisteo
P.O. Box 26110
Santa Fe, New Mexico 87505



Dear Ms. Hoditschek

This is a Class I modification to amend the Kirtland Air Force Base (KAFB) Explosive Ordnance Disposal Facility Subpart X, Open Detonation and Open Burning Part B Permits (NM9570024423-OD and NM9570024423-OB). The modification is to make the Open Detonation (NM9570024423-OD) and Open Burning (NM9570024423-OB) permits consistent with one another and to make the operational guide user friendly. The operational guide covers both open burning and open detonation operations. Therefore, the operational guide in both permits needs to be replaced (Permit Attachment H in NM9570024423-OB and Attachment I in NM9570024423-OD).

If you have any questions, please contact me at 846-5037 or Terry Cooper at 846-8546.

Respectfully


WALTER S. DARR III
Chief of Compliance
Environmental Management Division

Attachments:

1. Modification (Operating Guide)
2. Disk



EOD OPERATIONAL GUIDE # 16: Open Detonation and Open Burn Operations **26 February, 1996**

This guide delineates the minimum requirements for explosive ordnance operations at the Kirtland Air Force Base (KAFB) Open Detonation and Open Burn Treatment unit, procedures for receipt and inventory control of explosive materials, on-site transportation of explosive munitions, and detonation of explosives on KAFB property. This guide establishes procedures for performing munitions disposal operations on the KAFB OD/OB Unit treatment. It is applicable to all personnel using the treatment unit.

16.1 REFERENCES: AFMAN 91-201, T.O. 11A-1-42, 11A-1-60, EOD 60 Series technical orders, New Mexico Environmental Hazardous Waste Facility Permit, NM 957002443-OD

16.2 LIMITATIONS:

16.2.1 **PERSONNEL:** The minimum number of authorized is two qualified EOD personnel. The maximum: number of personnel is 24; 1 Range Safety Officer (RSO), 1 team chief, and 22 workers.

16.2.2 **EXPLOSIVE:** (Based on Net Explosive Weight (NEW)),

- Cased DOD Munitions Class 1 Division 1 through 4: **435 lb. (NEW)**
- Uncased DOD C/D 1.1 through 1.4: **1435 lb. (NEW)**
- Only D001 and D003 items can be treated in the EOD facility

16.2.3 **Definitions:** Each explosive operation conducted on the EOD range will be classified according to the definitions listed below:

- **Class I:** Visual or sound-disturbances only, no probability of projectiles or other damaging phenomena. (This class includes EOD cartridge actuated tools, blasting caps, detonating cord, thermite grenades, blast simulators, smoke grenades, and uncased bulk explosive up to 5 lb. NEW.)
- **Class II:** Minor blast effect, projectiles not propelled beyond 300 feet. Maximum NEW: 10 lb. of uncased explosives. (This class includes C-4, TNT, Data Sheet, Detonating cord, or any uncased bulk explosive. Shaped charges aren't considered cased munitions and may be used as long as they are positioned to fire the jet downward.)
- **Class III:** Overpressure, projectiles, or other phenomena which may be a hazard to unprotected personnel and equipment, or airborne aircraft within 500 feet of the detonation point. Maximum NEW: 64 lb. uncased explosives on the surface or buried. (This includes the same items listed in Class II.)
- **Class IV:** Overpressure, projectiles, or other phenomena which may be a hazard to unprotected personnel or equipment, and airborne aircraft more than 500 feet from the detonation point. Maximum NEW: 1,000 lb. of uncased explosives or 550 lb. of cased munitions on the surface or buried. (This includes the same items listed in Class II, III and cased munitions such as projectiles and LDGP bombs.)

- **Class V:** Includes phenomena listed for Class IV and may also induce major ground shock or sound waves that could cause damage or noise complaints. Includes all detonations over 1,000 lb. NEW uncased explosives on the surface or buried.

16.3 SAFETY: Safety is paramount and will not be degraded.

- Team members must be constantly aware of symptoms of heat stress or stroke and sufficient amount of water must be available on site
- First aid kit must be available on site
- In case of misfire, apply normal misfire precautions as indicated by technical directive. The Team chief will clear all misfires with a second qualified person acting as a safety backup.
- Air Force explosive safety standards will be followed. Vehicles used to transport explosive materials will be inspected
- Prompt action will be taken to control any hazard. If a hazardous situation is encountered all operations will be shut down and will not resume until the hazard is eliminated
- EMR precautions will be followed
 - All operations will be terminated during an electrical storm or when such a storm is approaching within 4.8 kilometers (3 miles)
 - Disposal by detonation using an electrical firing system will not be conducted during sand, dust, or snow storms
 - Detonation operations will not be conducted when wind velocity exceeds 15 miles per hour.
- Individuals may smoke in the area designated by the Range Safety Officer/Team chief.
- Explosive charges and tools will be positioned/placed to minimize the possibility of fragments or projectiles. Detonation pits or barricades should be used to the maximum extent possible.
- Explosive items will not be actuated, disassembled, or modified unless specifically authorized or directed by tech data. Nor will they be tumbled, dropped, thrown, or otherwise handled in a rough manner.
- Anyone detecting an unsafe condition or act will stop the operation and report the situation to the RSO/Team chief for resolution.
- Remove or tape over jewelry that may present a safety hazard.
- Keep blasting caps out of the direct rays of the sun and at least 25 feet from other explosives until ready to prime.
- Personnel exposure to danger will be minimized by restricting the handling of hazardous waste munitions. Only properly trained hazardous waste explosive handlers known hereafter as explosive ordnance disposal (EOD) technicians/specialist will handle waste to be treated at the open detonation treatment unit. EOD technicians/specialists will wear appropriate protective clothing, which may include safety glasses. Explosive waste will be packaged in competent containers that will be inspected before receipt and again before loading for delivery to the OD treatment unit.
- Class IV and V operations will not be conducted when the, cloud (ceiling is lower than 5,000 feet Air, Ground Level,(AGL), visibility is less than 5 miles, or when meteorological conditions (a strong inversion) favor sound wave propagation.

The detonation/burn disposal areas are near the center of the treatment unit and will be used for all munitions disposal operations.

- Class IV and V operations must be initiated with electric firing systems to ensure positive control of the detonation time. This is required because the range is in a Controlled Firing Area (CFA). Non-electric firing systems may be used for Class I through III operations. Detonations/Burns will not be conducted on "NO BURN" days.
- Any animals that happen to be on the OD/OB treatment unit at the detonation time will not be bothered whether it be mammal, reptile or insect. (This is because burrowing owls (*Athene cunieviana*) and the following State-listed endangered wildlife species that occur or potentially occur are threatened: These include the peregrine falcon, Mexican spotted owl (*Strix occidentalis lucida*), willow flycatcher (*Empidonax traillii*), gray vireo (*Vireo vicinior*), Baird's sparrow (*Ammodramus bairdii*), and the spotted bat.)
- If site conditions do not permit safe operation on any day at the accepted hour, the Operation will be rescheduled.

16.4 EMERGENCIES: In case of an injury or death immediately notify the Director and the EOD Operations Center. Care for the injured and request emergency medical assistance by the most expedient means. Terminate all further operations notify the Commander, Group Safety NCO, and Explosive Safety Office. Notify base emergency response agencies by the quickest means available. Provide the following information:

- Nature of emergency.
- Number of injured and seriousness of injuries.
- Exact location
- Munitions or explosives hazards present.

16.4.1 **Fire, Fire;** In case of fire give first aid to the injured and extinguish fires. If explosives become involved in the fire notify all personnel to take immediate cover. Standby to provide detailed information to responding agencies. Provide the following information:

- Nature of emergency.
- Number of injured and seriousness of injuries.
- Exact location
- Munitions or explosives hazards present.

16.5 EQUIPMENT:

- Radio-or telephone capable or reaching EOD Ops/Crash Control.
- First Aid Kit
- Demolition Kit
- 2 each **2A:10ABC** and 2 each water fire extinguishers.
- Specialized EOD tools and Pioneer tools (as needed)
- Explosives (as needed)
- A copy of this guide and applicable 11 and 60 series technical orders.

16.6 PROCEDURES:

16.6.1 EOD Operations Center: EOD Ops will;

- Will attend controlled firing area meetings, schedule range use, and assign team chiefs for disposal operations and initiate attachment 16-2.
- Will use attachment 16-1 as an ADR coordination guide for scheduling the disposal operations.
- Contact Phillips Laboratory staff meteorologist 48 hours prior and 24 hours prior to the detonation for sound wave propagation readings, and weather forecast. Wind speed is measured KAFB by Phillips Laboratory. A wind speed indicator is available at the EOD bunker.
- Complete ADR Coordination Guide, attachment 16-1
- Contact POL to schedule fuel delivery. **(Burn Operation Only)**
- Coordinate with CE for Dunnage delivery **(Burn Operation Only)**
- Contact the emergency room and ensure they are aware of the range location

16.6.2 Range Safety Officer/Team Chief: The RSO/team Chief will;

- Prior to departing for the range, verify that Ops has notified appropriate agencies of the operation, and that appropriate permits/clearances have been obtained.
- Obtain equipment, tools, radios, tech data, and explosives required for the operation and transport these items to the OD/OB treatment unit.
- Upon arriving at the OD/OB treatment unit, raise the range flag, secure the initiating explosives in designated holding areas, and ensure first aid kit/fire extinguishers are readily available.
- Perform a range inspection.
- Will brief the team members, workers and observers on the operation to be performed, safety precautions, and emergency actions.
- Will assign team members as required by the operation being performed.
- Will ensure compliance with range explosive limits
- Observe operations to prevent injury or premature detonation/initiation of explosives
- Maintain control of explosive train initiation device(s).

16.6.3 Receipt and Inventory of Waste Munitions:

- All shipments of explosive items received by KAFB will be physically inspected and inventoried by the EOD.
 - Shipments will be checked for quantify and verification of the description shown on the shipper's documents. Shipping documents will be noted with the date and time of arrival. If the shipment contains overage, shortage, or damage, this exception data will be entered on all copies of the transportation documents.
 - Shipments received without proper shipping documents will not be excepted until proper documents are obtained.
- Munitions/Waste unloading will be done manually (i.e., power equipment is not used) by EOD personnel in the detonation pit or burn facility.

- If waste is placed in the pit/burn facility and the treatment is aborted, the waste will be removed and returned to the generator, unless it would pose a hazard to personnel to remove the waste explosive.

16.6.3 **Burn Operation:**

- Prepare burn facility by placing dunnage
- Place munitions on dunnage.
- Spray diesel fuel (Limit fuel to only amount required)
- Prepare initiation grenades or powder bags in accordance with technical order.
- Evacuate all non-essential personnel
- Place initiation charges
- Prior to allowing initiation of firing procedures the team chief/RSO will ensure that aircraft, vehicles, or personnel aren't within or approaching the OD/OB treatment unit safety clear zone. Additionally, they will verify that appropriate notifications have been made by the EOD operations section and that personnel on the OB treatment are under protective cover.
- Wait a minimum of 12 hours before inspecting and 24 hours before cleaning or reusing the OB unit.
- When clear initiate charges and withdraw to the EOD bunker
- Assign personnel to fire watch duty. Personnel should remain at the bunker until burn is completed or until smoke has terminated.
- Range flag will remain until burn operation is inspected.

16.6.4 **Detonation Operation:**

- Prepare pits as required
- Place waste and explosives as needed
- Prepare blasting caps in accordance with technical order.
- Evacuate all non-essential personnel
- Place blasting caps
- Withdraw to the EOD bunker. The explosive open detonation will be remotely controlled from the EOD personnel bunker located at least 400 feet north of the open detonation pit and outside the 200 feet radius fence that encircles the pit.
- Prior to allowing initiation of firing procedures the team chief/RSO will ensure that aircraft, vehicles, or personnel aren't within or approaching the OD/OB treatment unit safety clear zone. Additionally, they will verify that appropriate notifications have been made by the EOD operations section and that personnel on the OD treatment are under protective cover.
- Initiate detonation
- Following the detonation and dust clears the team chief with safety backup will approach the detonation point and inspect for possible hazards. Personnel will remain at the bunker until checked by the team chief.
- The OD treatment unit will be cleared of any residue.
- Operations complete secure the flag, bunker, and gate.

**EOD OPERATIONAL GUIDE Attachment # 16-1: OPS ADR COORDINATION GUIDE
26 February, 1996**

A16.1.1 MONTHLY ACTIONS

- _____ Fill out CFAC Schedule form and FAX to Explosive Safety the third Tuesday of each month. (377th ABW/SEW at 6-0400)
- _____ Attend CFAC Meeting the third Thursday of each month at 0930 in the Explosive Safety Office.
- _____ Ensure a monthly Range inspection is completed.

A16.1.2 INITIAL NOTIFICATION ACTIONS

- _____ When notified, have customer FAX us a letter with all information of items to be destroyed , to include the following.

Item Description.
Explosive Chemical Composition.
Inert Item Description.
Net Explosive Weight.
Gross Weight.
Number of Articles.

- _____ Compare against Waste Treatment Listing located in the Manifest/Treatment Guide Book.
- _____ Notify customer of items to be accepted/not accepted.
- _____ Ensure customer will have proper paperwork for non-contraband items only filled out correctly upon arrival at the EOD Range. (EPA Form 8700-22 or AF Form 191)
- _____ Ensure customer is aware they are responsible for transportation of items to EOD Range. EOD escort will be provided from Base Gate to EOD Range.
- _____ Gate entering _____ Date/Time _____

A16.1.3 2 WEEK ACTIONS

- _____ Prepare an OB/OD Permit and submit to Environmental Management and FAX to 377th ABW/EM (6-0400).

- _____ If disposing of contraband submit an Authorization Letter to 377th CEG/CC for approval. (“DRUG.DOC” in Word)

A16.1.4 48 HOUR ACTIONS

- _____ Call Base Weather for forecast for the day of detonation. (6-9707)
- _____ Check to ensure permit is approved through EM and Contraband Letter if applicable. (6-8546).
- _____ If disposal was not coordinated through CFAC then complete a CFAC Test Notification Worksheet. (Get from Explosive Safety)
- _____ Call customers to reaffirm disposal date/time.
- _____ Ensure Supply has list of required explosives and that we have them available.
- _____ Contact POL to ensure fuel delivery date/time. (Burn operations only)

A16.1.4 MORNING OF OPERATION ACTIONS

- _____ Call Burn/No Burn Hotline to ensure compliance with Burn/No Burn days. (768-BURN)
- _____ Conduct a pre-disposal range inspection
- _____ Call Base Weather and confirm the following. (6-9707)

Wind Speed: _____ (No Go for 15 MPH or Above)
 Cloud Ceiling: _____ (No Go for Class IV & V if 5000' AGL or less)
 Visibility: _____ (No Go for Class IV & V if 5 Miles or less)
 Sand, Dust or Snowstorms: _____ (No Go due to static Electricity Hazards)
 Inversion Status: _____ (No Go if high probability for strong Shockwave propagation)

- _____ Notify SOR Site of detonation times and Classes. (6-4712 ext. 370)

A16.1.5 45 MINUTE ACTIONS

- _____ Notify Command post and get Detonation Time. (6-6432)
- _____ Notify SOR Site of Detonation Time. (6-4712 ext. 370)

A16.1.6 **OTHER ACTIONS**

- _____ Review Customers Hazardous Waste Manifests or equivalent (EPA Form 8700-22 or AF Form 191) for accuracy and sign.
- _____ If Air Traffic is in the area notify Control Tower/58th WOC. (856-4900/6-9482)
- _____ In case of Fire or Emergency refer to Contingency Plan in Range Bunker.

EOD OPERATIONAL GUIDE Attachment 16-2: ADR Planning Guide
26 February, 1996

A16.2.1 General Information

• Detonation Date: _____ Time # 1: _____ Time # 2: _____

• Detonation Type: _____ Class # 1: _____ Class # 2: _____

• **CUSTOMER** **AGENCY** **FAX/PHONE**

CUSTOMER	AGENCY	FAX/PHONE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

• TEAM CHIEF: _____ RSO: _____

A16.2.2 Assign the following positions:

Equipment Personnel (2): _____

Explosives Personnel (3): _____

Comm/Tech. Order Person: _____

A16.2.3 Ensure all Equipment/Explosives/Paperwork arrive on-scene.

A16.2.4 Provide Safety Brief before Ops begin.

A16.2.5 Perform Range/Bunker check before Ops begin.

A16.2.6 EQUIPMENT PERSONNEL: Ensure the following arrives on-scene.

- _____ First Aid Kit.
- _____ Demolition Kit.
- _____ Pioneer Tools.
- _____ Fire Extinguishers. (2 ea 10ABC/2 ea Water)
- _____ MX-22 Firing Device.

A16.2.7 EXPLOSIVES PERSONNEL: Ensure the following arrives on-scene.

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TYPE	QUANTITY	UNIT OF ISSUE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

A16.2.8 COMM/T.O. PERSON: Ensure the following arrives on-scene.

- _____ Cellular Phones/Radios.
- _____ Range Operations Guide.
- _____ EOD Division Instruction.
- _____ Applicable 60/11 series T.O.'s.
- _____ Keys to Bunker.

A16.2.9 ADDITIONAL PERSONNEL:

A16.2.10 If an accident/incident should occur use the following phone numbers:

- Law Enforcement Desk 6-7926
- Fire Department 6-8069
- Emergency Medical Services 6-3730
- Kirtland Command Post 6-6432
- Public Affairs 6-5991
- Environmental Management 6-8546

EOD OPERATIONAL GUIDE Attachment # 16-3: POST ADR ACTIONS GUIDE
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A16.3.1 Ensure that an AF Form 3579 is completed.

A16.3.2 Ensure that the Burn/Det Log is updated. (“brdetlog.doc” in Word)

A16.3.3 Ensure one copy of each of the following items is placed in the specifically dated ADR Folder.

- All information given by the customer pertaining item description etc.
- Pre-Disposal Range Inspection
- Permit Application
- Approved Permit
- Completed AF Form 3579
- Signed Contraband Disposal Letter (if applicable)

A16.3.4 Ensure one copy of all Hazardous Waste Manifests or equivalent (EPA Form 8700-22 or AF Form 191) is placed in the Manifest/Treatment Book in the Operation center. Ensure one copy of all Hazardous Waste Manifests or equivalent (EPA Form 8700-22 or AF Form 191) is placed in the HWM file at the Range Bunker.

A16.3.5 Ensure one copy of the updated Burn/Det log is place in the Burn/Det Log File in Operations.

A16.3.6 Ensure one copy of the Pre-Disposal Range Inspection is placed in the Pre-Inspection File at the Range Bunker.

A16.3.7 Ensure Base Environmental Management receives one copy of the AF Form 3579.

A16.3.8 If the Contingency Plan was activated close the range. Complete an incident report and submit it to Base Environmental Management. Range reopening is pending EM approval.