

## **5.0 EXPLOSIVES MANAGEMENT PLAN**

---

### **5.1 EXPLOSIVES MANAGEMENT**

This chapter describes the procedures applicable in the conduct of explosives management at Former Borrego Maneuver Area. These procedures include Acquisition; Initial Receipt; Storage; Transportation; Receipt; Lost, Stolen, or Unauthorized Use; and Inventories. This plan applies to all site personnel involved in the conduct of explosives management on the site. These procedures are in accordance with:

- Federal Acquisition Regulation (FAR) 45.5
- Alcohol, Tobacco, and Firearms (ATF) Publication 5400.7
- DOD 6055.9-STD
- DOT Regulations
- Local/State Laws and Regulations
- USACE DID MR-005-03
- DA Pam 385-64

#### **5.1.1 Acquisition**

MARRS Service's subcontractor Earth Tech is licensed through the Bureau of Alcohol, Tobacco and Firearms (BATF) to purchase and use explosives (Figure 5-1), and will supply commercial demolition material for disposal operations at Former Borrego Maneuver Area. This license, with the extension letter from BATF, will be available on site for local, state, or federal inspection. Accountability and use of the explosives will remain with Earth Tech unless custody is transferred to the Government or another contractor with a current BATF explosives license.



DEPARTMENT OF THE TREASURY - BUREAU OF ALCOHOL, TOBACCO AND FIREARMS

LICENSE/PERMIT (18 U.S.C. CHAPTER 40, EXPLOSIVES)

In accordance with the provisions of Title XI, Organized Crime Control Act of 1970, and the regulations issued thereunder (27 CFR Part 55), you may engage in the activity specified in this license/permit within the limitations of Chapter 40, Title 18, United States Code and the regulations issued thereunder, until the expiration date shown. See "WARNING" and "NOTICES" on back.

DIRECT ATF CORRESPONDENCE TO	CHIEF, NATIONAL LICENSING CENTER ATF 2600 CENTURY PARKWAY, SUITE 400 Atlanta, GA 30345	LICENSE/PERMIT NUMBER <b>9-CA-071-33-6F-00012</b>
NAME	ENVIRONMENTAL SERVICES	EXPIRATION DATE <b>June 1, 2006</b>
TYPE OF LICENSE OR PERMIT	33-USER OF HIGH EXPLOSIVES	Premises Address 1461 E COOLEY DR #100 COLTON, CA 92324-
PURCHASING CERTIFICATE		
I certify that this is a true copy of the license/permit issued to me to engage in the activity specified in the license/permit.		
SIGNATURE OF LICENSEE/PERMITTEE <i>Burt Bates</i>		MAILING ADDRESS
The licensee/permittee named herein shall use the license/permit to assist a transfer of explosives in accordance with the conditions and status of the licensee/permittee as provided in 27 CFR 55.11-55.12. The signature on each reproduction must be an ORIGINAL signature.		1461 E COOLEY DR #100 COLTON, CA 92324-

ATF F 5400.14/5400.15, Part 1 (2/03)

Figure 5-1. BATF License/Permit

Additionally, county permits for San Diego and Imperial counties are required for explosive operations conducted on Former Borrego Maneuver Area, ATF Possessor Forms must be submitted to ATF within 30 days after mobilization for personnel that will handle or have access to explosives and a minimum of one person (as required by the state) with a California Blaster's license must be on-site during demolition operations. Earth Tech will obtain the necessary local permits, submit ATF Possessor Forms required to conduct explosive operations, and ensure a licensed blaster is on site during demolition operations.

5.1.1.1 Acquisition Source

Commercial explosives will be purchased from a licensed local commercial supplier. The SUXOS/Demolition Team Leader will be authorized to request and receive explosives from the commercial supplier. No other personnel will be authorized to receive explosives from the vendor.

5.1.1.2 Listing of Proposed Explosives

The types of explosives that may be used, but are not limited to, are:

- Charge, 3/4-pound booster

- Charge, demo C-4, if available
- Non-EL initiating systems
- Cap, blasting non-electric
- Cap, blasting electric
- Shaped charges (21-gram perforator preferred)
- Detonating cord (80-grain or larger recommended)
- Fuse, time blasting
- Igniter, time fuse

### **5.1.2 Initial Receipt**

Only those individuals named on the Explosive Authorization Form (Appendix F) may sign for explosives received from the shipper/vendor. A completed authorization list will be posted at the site and provided to the commercial explosives supplier. In order to ensure the quantity shipped is the same as the quantity listed on the shipping documents, two UXO personnel listed on the explosive authorization list will inventory the shipment prior to signing for any demolition materials.

### **5.1.3 Receipt Procedure**

Explosive shipments may be accompanied by the explosive supplier's/vendor's bill of lading and the freight company's shipping document (if applicable). The initial inventory will include reconciling of the two documents, as appropriate, with the actual shipment received.

Regardless of the outcome of the initial inventory, one copy of the bill of lading and the freight company's shipping document, as appropriate, will be attached to a copy of the purchase order (PO). One copy of each of these documents will be kept on file at the site field office, and one complete copy should be forwarded to the Earth Tech Colton office.

#### **5.1.3.1 Explosives Receipt Discrepancy**

In the event that there is a discrepancy between the quantities of explosives shipped and the quantity received, the SUXOS or PM will immediately contact the explosives supplier and indicate the discrepancy. It is the responsibility of the supplier and shipper to rectify the situation and inform Earth Tech of the results. The supplier and/or shipper must then correct their documents and forward a revised bill of lading to the site. Only the actual quantity of explosives received will be signed for on the bill of lading at the time of delivery.

#### **5.1.3.2 Receipt/Return of Explosive Material**

Following each receipt or return of explosive material, the SUXOS will conduct a joint inventory in conjunction with the UXO Technician III demolition team leader. Unused demolition explosives will be returned to the vendor at the end of daily demolition activities.

#### **5.1.3.3 Certification**

The SUXOS and Demolition Team Leader will sign and date the Earth Tech Demolition Record

(Appendix F) certifying that the explosives were used for their intended purpose.

#### **5.1.4 Storage**

Commercial explosives will not be stored on site. Demolition explosives will be delivered on an "as needed" basis by the licensed local vendor.

##### **5.1.4.1 Establishment of Explosive Storage Facilities**

MEC considered "acceptable to move" is anticipated to be stored at the site for subsequent disposal at a designated disposal area. The procedures Earth Tech will use in establishing the storage facilities are:

- Use portable approved BATF Type 2 magazines large enough to stand in (approximately 8-feet by 8-feet) or other suitable size depending on availability.
- Locate, install, and maintain the magazines in compliance with criteria and quantity distance requirements established in DOD 6055.9-STD or ATFP 5400.7, as appropriate.
- Install sufficient magazines to comply with explosive compatibility requirements
- Establish security, such as fencing/guards, to prevent unauthorized access or theft, as required

##### **5.1.4.2 Physical Security of Explosive Storage Facilities**

Physical security for MEC magazines will include fencing and/or guards to prevent unauthorized access or theft, as required.

#### **5.1.5 Transportation**

Transportation of explosives or MEC will be in compliance with all federal, state, and local regulations. Permits may not be required under CERCLA for on-site transportation of explosives or MEC; however, county permits will be required for transportation of explosives or MEC off site. If Earth Tech is required to transport explosives or MEC off site, the necessary permits and documentation from San Diego and Imperial counties will be obtained. The local explosives vendor is responsible for their own permits and documentation for "delivery as needed" transportation of commercial explosives.

##### **5.1.5.1 Transportation from Magazines to Disposal Location**

Earth Tech personnel will comply with the following procedures when transporting explosives and/or MEC to the disposal site:

- Initiating explosives, such as blasting caps, will be separated from other explosives at all times in the vehicle. Initiating explosives may be transported in the same vehicle, but must be in a separate container and secured away from other explosives.

- Ensure compatibility requirements are met
- A UXO Technician III or higher is required to sign for and supervise the transportation of explosives or MEC.
- The driver of the transporting vehicle must possess a valid driver's license
- The driver will comply with posted speed limits; however, a safe and reasonable speed for actual road conditions will be observed. Drivers transporting explosives or MEC off-road will not exceed 25 mph.
- No personnel are allowed in the cargo compartment while transporting explosives or MEC

#### **5.1.5.2 Requirements for Vehicles Transporting Explosives or MEC**

Explosives or MEC will be transported in closed vehicles whenever possible. Day boxes (Type 3) of adequate sizes to contain all explosives should be used if the vehicle is not closed. The following requirements apply to each transporting event:

- Vehicles transporting explosives or MEC will be inspected daily using the Vehicle Inspection Form (Appendix F) and be properly placarded.
- Vehicles transporting explosives shall have a first aid kit, two 10 BC-rated fire extinguishers, and communications with the SUXOS and field office.
- Vehicle engine will not be running when loading/unloading explosives
- The load shall be well-braced and secured during shipment. Material will be transported in day boxes or on a wooden bed liner, dunnage, or sand bags to protect the explosives from contact with the metal bed or fittings.

#### **5.1.6 MEC Inventory**

The SUXOS, Demolition Team Leader, or UXO Safety Officer will strictly control access to all MEC stored in the magazine.

##### **5.1.6.1 MEC Magazine Inventory Procedures**

Access to MEC magazines will be limited to the SUXOS, Demolition Team Leader and the UXO Safety Officer to maintain accountability and meet BATF inspection requirements. MEC Explosive Accountability Record (Appendix F). Two copies of that record will be maintained. For MEC, one copy will remain in the magazine(s) and one copy will be maintained by the SUXOS or Demolition Team Leader to facilitate checking MEC status without accessing the magazines. MEC records will be verified through a physical count by the SUXOS or Demolition Team Leader during each issue/receipt of MEC from/to the magazine(s). UXO QC will periodically inspect the inventory for accuracy.

Upon completion of daily demolition activities, the transactions recorded on the Demolition

Records should account for all explosives used at the site, and/or returned to the commercial explosive supplier. These records should also account for disposal of MEC.

#### **5.1.6.2 Reconciliation of Inventory Discrepancies**

The SUXOS, Demolition Team Leader, or UXO Safety Officer will be responsible for conducting a weekly inventory of the MEC within the magazine(s). If there is a discrepancy between the inventory and the quantity of MEC within the magazine(s), they will review the Explosive Accountability Records and Demolition Records to see if the inventory records are current. If discrepancies still exist after a thorough review of all records, steps outlined in this chapter will be taken.

#### **5.1.6.3 Inventory Schedule**

MEC will be inventoried at least weekly. Weekly inventories will be conducted by the SUXOS, Demolition Team Leader or UXO Safety Officer. Complete inventories will also be conducted during issue or receipt of MEC.

#### **5.1.7 Lost/Stolen or Unauthorized Use of Explosives/MEC**

In the event that there is a discrepancy during any inventory, the item will be recounted a minimum of two additional times. If the discrepancy is not resolved, the CESPL Contracting Officer, MARRS Project Manager, CESPL Safety Representative, local law enforcement agencies, and BATF will be notified within 24 hours of identifying the explosives as lost/stolen.

#### **5.1.8 Return of Explosives/MEC not Expended**

Explosives or MEC that were issued for use/disposal, but were not used or disposed, will be returned to the magazines and/or commercial explosives supplier at the end of the workday. Explosive Accountability Records will be updated to reflect the return of MEC to the magazines.

#### **5.1.9 Procedures for Disposal of Unused Explosives**

At the end of each demolition event, all unused explosives will either be disposed by detonation on-site or custody and accountability transferred back to the commercial supplier.