

Environmental Standard Operating Procedure			
Originating Office:  <b>MCAS Miramar Environmental Management Department</b>	Revision:  Original	Prepared By:  Environmental Management Department	Approved By:  William Moog
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## Title: Unexploded Ordnance/Explosive Ordnance Disposal

### 1.0 PURPOSE

The purpose of this Environmental Standard Operating Procedure (ESOP) is to provide environmental guidelines for the handling and disposal of unexploded and explosive ordnance (UXO).

### 2.0 APPLICATION

This guidance applies to explosive ordnance disposal (EOD) technicians who are involved in the handling and disposal of unexploded and explosive ordnance onboard Marine Corps Air Station (MCAS) Miramar.

### 3.0 REFERENCES

- MCO P5090.2A (USMC Environmental Compliance and Protection Manual)
- MCO P5090.5
- MCO P4790.2C
- MCO 8020.10A
- 22 CCR 66264 (California Code of Regulations)
- 10 HSC 20 (California Health and Safety Code)
- 40 CFR 73, 124, 261-268, 270 (Code of Federal Regulations)
- 49 CFR 171-178
- MMR (Military Munitions Rule) [62 Federal Register 6622]
- 42 USC 6961 (United States Code)
- NAVSEA OP 3565 (Naval Sea Systems Command Operation Procedure)

### 4.0 PROCEDURE

#### 4.1 Discussion:

Unexploded and explosive ordnance handling and disposal occurs at the Marine Corps Air Station (MCAS) Miramar or in response to requests from local civil authorities or non-Department of Defense (DoD) entities on non-DoD property. Proper handling and disposal of ordnance must be managed properly in order to lessen impacts to human health and the environment.

## 4.2 Operational Controls:

The following procedures apply:

1. Maintain a copy of nomenclature of military munitions [no Material Safety Data Sheets (MSDS) are issued].
2. Ensure that records of all required training and certifications are current and available for inspection
3. Ensure turnover folder information is kept for this practice.
4. Wear appropriate protective personal equipment (PPE) including, but not limited to: eye protection, ear protection, respirators, chemical-resistant clothing, gloves, and steel-toed boots.
5. Ensure all personnel comply with all federal, state, interstate, and local requirements pertaining to the control and abatement of solid or hazardous waste handling, storage, and disposal.
6. Consult with the Environmental Department before making disposal decisions involving waste determinations in California if:
  - a. Materials are mislabeled or not adequately labeled, unless the material is adequately labeled within 10 days of discovery.
  - b. Materials are packaged in damaged or deteriorating containers, unless the material is packaged in sound or undamaged containers within 96 hours of discovery.
  - c. Materials are presumed to be a waste if it consists of or contains any of the chemicals listed in 22 CCR 66261.126, unless determined that the waste is not a hazardous waste.
7. Retrieve military munitions fired off-range or keep a record of the event.
8. Maintain records of all response actions involving military munitions.
9. Never allow munitions to be placed in a landfill.
10. Inspect all safety devices i.e. communication equipment, spill kit, first aid kit, and fire extinguishers before and after each operation.
11. Inspect vehicles used to transport demolition materials, explosives, and personnel before and after each operation for ammunition, explosives, and related hazardous materials. Clean and service vehicle at the end of each days operations.
12. Maintain all completed inspection checklists in the operations and inspection log in the EOD Office.
13. For recovery and disposal of buried or abandoned unused munitions (must be handled as hazardous waste).
  - a. Handle munitions according to the waste regulations for the state California.

- b. Manifest all shipments from the MCAS Miramar.
- c. Never transport bulk ammunition, either internally or externally, in a helicopter with passengers aboard during training operations.
- d. Ensure all munition transports are hazard of electromagnetic radiation to ordnance (HERO) safe.
- e. Request disposition instructions from the designated disposition authority (DDA) within 96 hours of the waste being found, unless it is an emergency to mitigate an eminent hazard to human health or public safety.
- f. Ensure Block 17 of the Uniform Hazardous Waste Manifest (UHWM) is signed by the secondary transport personnel only if the original transporter is not going to complete the transportation of the item(s) from the MCAS Miramar.
- g. If the EOD technician determines when an emergency exists:
  - i. Follow render safe procedures.
  - ii. Follow checklist set forth in Procedures for Recovering Military Munitions.
  - iii. Contact the Environmental Department.

#### **4.3 Documentation and Record Keeping:**

The following records must be maintained:

1. MSDSs for all non-munitions received on site.
2. Records of all response actions.
3. Operations and inspection log.
4. MTR Inspection Checklist.
  - a. Before and after each use.
    - i. Communication, safety, and emergency equipment.
    - ii. Vehicles.
5. Personnel training records and certifications.

**4.4 Training:**

All personnel must be trained in this ESOP and the following as applicable:

1. Hazardous Waste Operations and Emergency Response (HazWOPER) Training (initial and annual).
2. Hazardous Waste Management Training.
3. Hazardous Waste Supervisor.
4. Explosive Ordnance Disposal Training (initial).

**4.5 Emergency Preparedness and Response Procedures:**

Refer to Procedures to Prevent Hazards and the Emergency Contingency Plan.

**4.6 Inspection and Corrective Action:**

The Environmental Compliance Coordinator (ECC) shall perform or designate personnel to perform inspections. The ECC shall ensure deficiencies noted during the inspections are corrected immediately. Actions taken to correct each deficiency shall be recorded on the inspection sheet.

Unexploded Ordnance/Explosive Ordnance Disposal Inspection Checklist	
Date:	Time:
Installation:	Work Center:
Inspector's Name:	Signature:

Inspection Items	Yes	No	Comments
1. Are all MSDSs readily available and current for all materials treated? <i>(29 CFR 1910; MCO P5090.5)</i>			
2. Are all training requirements met and training certifications maintained and available for review? <i>(MCO P5090.2A)</i>			
3. Is turnover folder kept for this practice? <i>(MCO P4790.2C)</i>			
4. Do all personnel wear the appropriate PPE? <i>(29 CFR 1910)</i>			
5. Do personnel comply with all federal, state,			

interstate, and local requirements regarding control of solid or hazardous waste disposal and management? (42 USC 6961)			
6. Is the Environmental Department consulted before making waste determinations in California? (40 CFR 262.2 and 3)			
7. Are military munitions fired off range retrieved or event recorded? (MMR [62 FR 6622)			
8. Are records of all response actions involving military munitions maintained? (MMR [62 FR 6622)			
9. Are munitions ever placed in a landfill or buried on the YTRC? (MCO P8020.10A)			
10. Are all safety devices inspected before and after each operation? (29 CFR 1910)			
11. Are vehicles inspected before and after each operation? Are vehicles cleaned and serviced after each operation? (29 CFR 1910)			
12. Are all inspection checklists filed in the Operations and Inspection Log? (MCO P5090.2A)			
<b>Operational Controls for abandoned recovered unused munitions with the intent to dispose</b>			
13. Are munitions handled according to the waste regulations of the state where abandonment occurred? (MCO P8020.10A)			
14. Are all shipments from the CMAGR to the MTR manifested? (MCO P8020.10A)			
15. Is bulk ammunition ever transported in a helicopter with passengers aboard during training operations? (MCO P8020.10A)			
16. Are all munition transports HERO safe? (MCO P8020.10A)			
17. Does Station Weapons request disposition instructions from the DDA within 96 hours of recovering abandoned unused munitions? (MCO P8020.10A)			
18. Is Block 17 of the UHWM signed by the second transporter?			

<i>(MCO P8020.10A)</i>			
19. If an emergency exists:  a. Are render safe procedures followed?  b. Is the checklist in <u>Procedures for Recovering Military Munitions</u> followed?  c. Is the Environmental Department contacted?  <i>(MCO P8020.10A)</i>			

**ADDITIONAL COMMENTS:**

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**CORRECTIVE ACTION TAKEN:**

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**Environmental Compliance Coordinator**

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

