

Environmental Standard Operating Procedure			
Originating Office: <b>Environmental Management Department</b>	Revision: Original	Prepared By: Waste Management Division	Approved By: William Moog
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## Title: Battery Replacement (Replacement/Recharging, Vehicle)

### 1.0 PURPOSE

The purpose of this Standard Operating Procedure is to provide environmental guidelines for the management of lead acid batteries.

### 2.0 APPLICATION

This guidance applies to those individuals working with of lead acid batteries aboard MCAS Miramar.

### 3.0 REFERENCES

- 40 CFR 261
- 22 CCR 66266
- 29 CFR 1910
- MCAS Miramar Hazardous Waste Management Plan.

### 4.0 PROCEDURE

#### 4.1 Discussion:

Batteries may be hazardous to human health and the environment if not properly handled.

#### 4.2 Operational Controls:

Most of all vehicle and equipment batteries aboard MCAS Miramar are considered maintenance free lead acid batteries. A small percentage of the vehicle and equipment batteries require the mixing of sulfuric acid and water in the battery, prior to being placed on a battery charger. Regardless of type, all lead acid batteries aboard MCAS Miramar must be recycled. Used batteries are turned into the Waste Management Division after being properly packaged for recycling.

The following procedures apply to unit level operators:

1. Add water and sulfuric acid to batteries according to manufacturers' instructions.
2. During charging operations, monitor voltage and heat generation from the charging battery; shut-down all charging when voltage exceeds required level or the battery is excessively hot.
3. Label non leaking lead acid batteries with the words "Bad" and the date the battery was taken out of service.
4. Place the battery on a sturdy wooden or plastic pallet capable of supporting three even stacks of batteries.
5. Evenly triple-stack the lead-acid batteries on a pallet and separate each stack of batteries with a cardboard divider.
6. Securely strap each stack of batteries with a metal strapping band and then shrink wrap the entire pallet to prevent any battery movement during transportation.
7. Batteries that are missing caps, damaged or leaking must be placed in a poly container and marked with the words "Bad" and the date the battery was taken out of service on the outside of the container.
8. Lead-acid batteries can be accumulated for 6 months or until the unit accumulates a full stack of batteries or container, whichever occurs first.
9. Lead-acid batteries may be picked up from the unit's waste sites or delivered to the 90-day facility for recycling.
10. To schedule a pick up or delivery of the batteries, contact the unit's Environmental Protection Specialist.
11. All batteries must be turned over to the WMD for proper recycling. The transferring of the batteries from the unit to the WMD must be documented on the unit's waste transfer logbook.
12. Ensure a spill kit with two one-pound boxes of baking soda is available for emergencies.
13. Turnover folder information must be kept for this Standard Operating Procedure.
14. If there are any specific situations or other concerns not addressed by this procedure, contact MCAS Miramar Environmental Management Department.

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

The following records must be maintained:

1. MSDS for batteries.
2. Training and inspection records.
3. Waste Transfer Logbook.

**4.4 Training:**

All affected personnel must be trained in this Standard Operating Procedure and the following:

1. Hazard Communication training.
2. General Environmental Awareness training.
3. Hazardous Material Business Plan training topics 1-4.

**4.5 Emergency Preparedness and Response Procedures:**

Refer to the Hazardous Material Business Plan, Emergency Response Plan and Marine Corps Air Station Miramar Oil And Hazardous Substance Spill Contingency Plan Spill Response Procedures.

**4.6 Inspection and Corrective Action:**

The Environmental Compliance Coordinator (ECC) shall 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.

Battery, Lead Acid – Inspection Checklist	
Date:	Time:
Installation:	Work Center:
Inspector’s Name:	Signature:

Inspection Items	Yes	No	Comments
1. Are lead acid batteries marked with the date when taken out of service? <i>(40 CFR 273.15(c), 40 CFR 273.35(c))</i>			
2. Are lead acid batteries marked with the words “Used Battery”? <i>(40 CFR 273.14, 40 CFR 273.34)</i>			
3. Are lead acid batteries free of leaks and cracks? <i>(40 CFR 273.13(a)(2), 40 CFR 273.35(a)(2))</i>			
4. Are cracked or damaged lead acid batteries stored in a plastic container/poly drum and marked			

accordingly? (40 CFR 273.13(a)(1), 40 CFR 273.33(a)(1))			
5. Are used, cracked or damaged lead acid batteries and empty acid containers stored properly at the SAA site? (40 CFR 273.13(a)(1), 40 CFR 273.33(a)(1))			
6. Is baking soda available for emergencies? (HWMP)			
7. Is an eyewash system located near the site and is it working properly? (29 CFR 1910.151(c); MCO 5100.8F 13007(10))			
8. Are training records maintained and available for inspection? (HWMP)			

**ADDITIONAL COMMENTS:**

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**CORRECTIVE ACTION TAKEN:**

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**Environmental Compliance Coordinator**

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

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

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