

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: Brake Replacement

### 1.0 PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to provide environmental guidelines for managing brake replacement operations and maintenance (O&M) activities.

### 2.0 APPLICATION

This guidance applies to those individuals who perform brake replacement onboard Marine Corps Air Station (MCAS) Miramar.

### 3.0 REFERENCES

- 40 CFR (Code of Federal Regulations)
- 29 CCR (California Code of Regulations)
- MCO P5090.2A (USMC Environmental Compliance and Protection Manual)
- MCAS Miramar Hazardous Waste Management Plan (HWMP)

### 4.0 PROCEDURE

#### 4.1 Discussion:

Brake replacement O&M requires checking asbestos brake pads for periodic wear and tear, cleaning dust from brakes, and performing brake replacement. Brake O&M utilizes hazardous materials such as asbestos containing brake pads, brake cleaner and brake fluid. Replacement activities generate hazardous waste such as asbestos containing brake pads, asbestos contaminated rags, and waste fluids, which must be managed properly to avoid impacts to human health and the environment. All hazardous materials must be stored in approved containers. Units are equipped with approved containers and should contact the Environmental Department for replacement of or to request additional containers.

#### 4.2 Operational Controls:

The following procedures apply:

1. Ensure MSDSs are readily available and current for all hazardous materials that may be present.
2. Maintain current technical orders, rebuilding instructions and maintenance manuals in a designated location.
3. Wear proper PPE (Personal Protective Equipment) when there is potential to come in contact with any hazardous waste while removing vehicle equipment/parts.
4. Store all usable hazardous materials in the hazardous materials (HAZMAT) locker.
5. Do not use compressed air to clean dust from brakes and assemblies.
6. Place drip pans underneath wheel assembly and master cylinder when working on brake assemblies.
7. Properly seal all waste asbestos containing material (ACM) in approved ACM bags or containers and label with approved warning signs.
8. Separate and place all other waste streams into their appropriate marked containers.
9. Keep a spill kit near potential spill hazard areas
10. Keep fire extinguisher near potentially flammable materials.
11. Keep PPE near potential health hazard areas.
12. Post appropriate signage (e.g. "No Smoking", etc.).
13. Turnover folder information must be kept for this Standard Operating Procedure.
14. Contact EMD Office if there are any specific situations or other concerns not addressed by this procedure.

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

The following records must be maintained:

1. Operation and maintenance manuals.
2. Technical Orders.
3. Scheduled maintenance log.
4. Brake log (brake test results for ACM).
5. MSDSs for all aircraft fuels used at MCAS Miramar.
6. Training records and certifications for all personnel.

7. Spill reports (verbally reported to EMD within 24 hrs, followed up by a written report within 5 days) in accordance with Station Order 6280.2.
8. Spill log.
9. Inspection records.

**4.4 Training:**

All personnel must be trained in this ESOP, to include the following, as applicable:

1. Standard operating procedure incorporating QPL.
2. Ground support equipment school.
3. Preventative Maintenance.
4. Hazard Communication training.
5. HAZWOPER training (initial and annual).
6. Technician training (initial/annual health and safety).
7. Weekly on the job (OJT) training.

**4.5 Emergency Preparedness and Response Procedures:**

Refer to Marine Corps Order (MCO) P5090.2A, Subject: Oil/Hazardous Substance Spills (OHSS) and Spill Prevention Containment and Countermeasures (SPCC) for MCAS Miramar.

**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.

Brake Replacement – Inspection Checklist	
Date:	Time:
Installation:	Work Center:
Inspector’s Name:	Signature:

Inspection Items	Yes	No	Comments
1. Are MSDSs current and available for inspection? (29 CFR 1910)			
2. Are all required permits current and available for inspection? (MCO P5090.2A)			
3. Are current technical orders, rebuilding instructions and maintenance manuals maintained in a designated location? (MCO P5090.2A)			
4. Are required current training records and certifications maintained at training department for all personnel? (MCO P5090.2A)			
5. Is turnover folder or desktop procedure kept for this practice? (MCO P5090.2A)			
6. Is appropriate PPE worn as necessary? (29 CFR 1910)			
7. Are fire extinguishers and spill kits maintained nearby in designated locations known to unit personnel? (29 CFR 1910)			
8. Is periodic maintenance conducted as recommended by the manufacturer and maintenance records kept? (MCO P5090.2A)			
9. Are all usable hazardous materials (dry solvent, brake fluid) stored in the hazardous materials (HAZMAT) locker? (MCO P5090.2A)			
10. Is compressed air used to clean dust from brakes and brakes assemblies? (29 CFR 1910, MCO P5090.2A)			
11. Are drip pans placed underneath wheel assembly and master cylinder when working on these parts? (40 CFR 262)			
12. Are sufficient amounts of absorbent material (clay) maintained to absorb any leaks or spills? (40 CFR 262, HWMP)			
13. Is all waste ACM properly sealed in approved ACM bags or containers and labeled with approved warning signs? (40 CFR 262)			
14. Is a waste log maintained that includes container type, accumulation start and end dates, and date taken to 90 day storage area? (40 CFR 262, MCO P5090.2A)			
15. Are all spills reported to the supervisor and the Environmental Department? (MCO P5090.2A, HWMP)			

<p>16. Is a spill report submitted to the Environmental Department detailing the spill date, time, product spilled, quantity, location, cleanup actions taken, and name of the person reporting the spill? <i>(MCO P5090.2A, HWMP)</i></p>			
<p>17. Are used rags placed in approved FOD buckets for recycling or disposal? <i>(MCO P5090.2A)</i></p>			
<p>18. Are daily inspections of storage areas and secondary containment conducted? Are all inspection records maintained in record jackets for at least six months with the office of the CDI and PC? <i>(MCO P5090.2A)</i></p>			
<p>19. Are warning signs, such as "No Smoking" and "Flammable Materials" clearly visible and legible from a distance of 25' in any direction? <i>(40 CFR 265)</i></p>			

**ADDITIONAL COMMENTS:**

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**CORRECTIVE ACTION TAKEN:**

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**Environmental Compliance Coordinator**

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

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

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