

Activity Name

Shop: _____
Bldg.# _____

Date Posted

**STANDARD OPERATING PROCEDURE
FOR ASBESTOS BRAKE MAINTENANCE**

References: (a) Title 29, Code of Federal Regulations, Part 1910
(b) MCO 5100.8F

General Policies

Maintenance personnel will treat all brake and clutch pads as asbestos materials, **UNLESS** the work center has proof the pads do not contain asbestos. Laboratory results, manufacturers or material safety data sheets will be accepted as proof. **The material safety data sheets shall be specific to the item in question.** Reference (a) states that shops that perform less than 5 brake inspections or replacements per week may use a "Wet Method" procedure, as described below. This SOP was designed to PREVENT and ensure Marines are not over exposed to asbestos fibers. This SOP will be posted in the work center to assist personnel in properly inspecting and/or removing asbestos-containing brakes. Personnel performing brake inspections/repairs shall receive initial asbestos awareness training. This training should be at least 2 hours in length and is required for all who may work with asbestos-containing brakes and/or clutches. The training will be conducted by the shop supervisor and will include as a minimum:

- Information regarding asbestos and its various forms;
- Information on the health effects associated with asbestos exposure and the relationship between smoking and exposure to asbestos;
- The quantity, location, manner of use, release and storage of asbestos, and the specific nature of operations which could result in exposure to asbestos;
- The engineering controls and **WORK PRACTICES** associated with their job
- The **SPECIFIC** procedures implemented to protect employees from exposure to asbestos.
- Description of the proper methods for handling, clean-up, and disposing of asbestos containing materials (ACM);
- Hands on training in the use of engineering controls, personal protection measures, and good work practices.

Control Method

1. When possible, designate an area away from other types of work to conduct brake work. The immediate area around the work area where asbestos is involved should be posted with asbestos hazard warning signs.

NOTE: DO NOT EAT, DRINK, SMOKE, OR APPLY COSMETICS WHILE WORKING. WASH CAREFULLY UPON COMPLETION OR REPAIR.

2. Never use compressed air or dry brushing to remove asbestos dust from parts.

3. Arcing and riveting shall not be allowed.

4. Disassemble one unit at a time. Place 4 - 6 mil thickness plastic sheet under the unit to be worked on.

5. Respiratory protection is not required during brake and clutch jobs as long as the control methods listed below are used. Personnel exposures above the eight-hour asbestos permissible exposure limit (PEL) or 30 minute excursion limit are extremely unlikely. This is based on extensive air sampling conducted, during brake jobs, by U.S. Naval Hospital Okinawa, Industrial Hygiene Department.

Materials needed:

Asbestos waste bag

Disposable impermeable gloves

Cloth or disposable coveralls

Plastic pump type spray bottle

Water (addition of floor wax or degreaser optional)

6. Raise up the vehicle to the minimum height necessary to service brake components (just until the wheel is clear of the deck). This will help minimize dust exposure by assuring wheel parts are not disassembled at or above the worker's breathing zone.

7. Ensure an asbestos waste bag, disposable rags and hand pump type spray bottle full of water (or water with a small amount of floor wax or degreaser such as Simple Green added) is available for use before beginning maintenance. Open bag and set it near/under the wheel.

8. Begin spraying potentially contaminated parts such as the brake drums, inside the wheels, the lining, the backing plate, the calipers, rotor, and all other exposed parts. If removing the rotor also spray the splash shield. Begin the process by spraying with a fine mist about two feet from the surfaces to prevent the velocity of the spray from dislodging asbestos particles. After the surfaces are thoroughly wetted, the spray

may be brought closer to the parts and the parts may be sprayed as necessary to remove grease and other materials. The automotive parts sprayed with the mist should then be wiped with a damp disposable rag to remove any loose dust. Remove drum cover carefully. Ensure all exposed components are wet prior to brake disassembly.

9. After disassembly and removal of used brake shoes, ensure all brake pads, shoes, and used rags are placed in the asbestos waste bag.

10. Commence installation of replacement brake components. We recommend using asbestos-free components. If the new brakes contain asbestos, since the new brakes are not worn, fibers should not be liberated in significant amounts so wetting is not necessary.

11. All vehicle and floor surfaces adjacent to the workspace must be HEPA vacuumed or wiped with a damp cloth at the end of each brake or clutch task. All cloths used for wiping, all asbestos containing parts that are no longer useful and the 4-6 mil plastic sheet shall be placed into the asbestos-labeled plastic waste bag.

12. When all asbestos contaminated material has been wetted, placed in the bag, and the workspace area is cleaned, remove disposable gloves by pulling them inside-out and place them in the asbestos waste bag. When the plastic waste bag is half full, spray the contents lightly with water or the solvent spray and remove the excess air from the bag before sealing. Seal the bag "goose-neck style" and secure it with duct tape. Then place the bag in another asbestos-labeled waste bag and repeat the process for disposal. NOTE: DOUBLE BAGGING IS REQUIRED. Place asbestos waste in the accumulation area for proper disposal per local environmental and DRMO guidelines.

13. After work is complete, wash hands thoroughly.