

# Management Instruction

## Control of Asbestos Exposure from Brake and Clutch Repair and Service

This management instruction (MI) establishes policy, outlines responsibilities, and lists work practices that must be implemented within the Postal Service™ to comply with Occupational Safety and Health Administration (OSHA) general industry standards as they apply to work with asbestos-containing brake linings, clutch face assemblies, and similar components.<sup>1</sup>

### Policy

#### Employee Protection

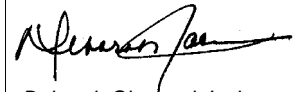
The Postal Service will comply with all requirements of OSHA's general industry standard for asbestos (29 CFR 1910.1001)<sup>2</sup> that apply to brake and clutch work in vehicle maintenance facilities (VMFs), plants, and other locations where conveyors and powered industrial truck (PIT) brakes or other components contain asbestos-containing material (ACM), as follows:

- Postal Service employees will not perform work that exceeds the OSHA permissible exposure limit (PEL) under any circumstances. Therefore, a full OSHA written compliance program is not required.
- The use of compressed air is not allowed when cleaning brakes and clutches.
- If a facility has documented in writing (e.g., in an inventory) that no ACM is present, then no further action is required.

<sup>1</sup> See MI EL-890-2007-2, *Asbestos-Containing Building Materials Control Program*, and Handbook AS-556, *Asbestos Management Guide*, for informaton on other asbestos control issues.

<sup>2</sup> See Attachment 1, Excerpts from 29 CFR 1910.1001(f)(3), and Attachment 2, 29 CFR 1910-1001, Appendix F. For full details, refer to the asbestos standard.

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## Pollution Prevention

The Postal Service is committed to reducing asbestos exposure to employees, reducing the generation of hazardous waste, eliminating use of asbestos-containing brake linings and clutch face assemblies, and to continuing these practices until no such materials are present in Postal Service facilities.

## Requirements

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Postal Service facilities must:

- Observe proper compliance methods for automotive brake and clutch repair and other brake and clutch work.
- Not exceed the PEL.
- Meet the minimum program requirements set forth below.

## Engineering Controls

Regardless of the amount of automotive brake or clutch work done, engineering controls are limited to those detailed in 29 CFR 1910.1001(f)(3) and appendix F. These controls include use of the following:

1. High-efficiency particulate air (HEPA) and negative pressure enclosures cleaning;
2. Low-pressure wet cleaning; or
3. Wet cleaning.

### **For conveyor, PIT, and other brake and clutch work**

If the methods set forth in appendix F (including paragraph (D)) are feasible, then they must be used. If using those methods is not feasible, then the facility must contract for repair or replacement of parts containing asbestos.

### **For HEPA vacuums and negative pressure enclosures**

1. HEPA vacuums and negative pressure enclosures must be properly maintained, emptied, and cleaned.
2. Postal Service employees will not change HEPA filters and bags used for asbestos control as they could present an exposure to asbestos above the limits set by OSHA. When the filters or bags need to be changed, contract with a licensed asbestos abatement contractor to perform the work. Your environmental specialist or district safety manager can provide names of licensed contractors.
3. HEPA vacuums used for asbestos control may not be used for any other purpose.

4. Vacuums used in performing asbestos work must be labeled to indicate that they contain asbestos. This requirement can be met by affixing the 4-inch-square Postal Service "A" label (USP-RL) to the vacuum canister signifying that it contains asbestos. Order this label from the MSC Industrial Supply Company using part number 85638500.

## Respirators

The following guidelines apply:

- Respirators are not required by the standard unless the PEL is exceeded.
- If respirators are required (for any other exposures), a written respirator program must be established (29 CFR 1910.134). Consult the servicing safety office.
- Filtering face pieces certified by the National Institute for Occupational Safety and Health may be used for comfort in the absence of any exposures exceeding OSHA limits.<sup>3</sup>

## Training

Minimum training of employees working with ACMs must include instruction in the following topics:

1. Health effects of asbestos.
2. Proper work practices (see attachment 2).
3. Housekeeping.
4. Smoking cessation.
5. Personal hygiene.
6. Disposal methods.

This training must be provided annually. No Postal Service courses exist for this training. Suppliers of vacuums and wet methods equipment can often supply this training or instructional materials. Consult the servicing safety office for assistance.

## Hazardous Waste

Waste from asbestos-containing brake and clutch work must be disposed of in accordance with federal and state hazardous waste regulations.

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<sup>3</sup> See the current MI on *Personal Protective Equipment and Respiration Programs*.

## Fiber Release Episodes

To address potential accidental asbestos overexposure or employee concerns, see Handbook AS-556, *Asbestos Management Guide*, Chapter 11, Responding to a Fiber Release Episode.

## Records

The Postal Service must:

- Keep air monitoring records at the local safety office and, if necessary, include the records in Employee Medical Folders.
- Maintain training records using the National Training Database.

## Roles and Responsibilities

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### Headquarters

<b>This person or organization...</b>	<b>will...</b>
Vice President, Employee Resource Management (ERM), Human Resources (HR)	<ul style="list-style-type: none"><li>■ serve as the Chief Environmental Officer for the Postal Service.</li><li>■ communicate safety and environmental policies, including those pertaining to asbestos control.</li></ul>
Director, Safety and Environmental Performance Management (SEPM), ERM, HR	<ul style="list-style-type: none"><li>■ establish strategic direction and oversee the Postal Service's environmental and safety programs.</li><li>■ develop policies and interpret standards relating to control of employee exposures to asbestos fibers.</li></ul>
Manager, Environmental Policy and Programs (EPP), SEPM, ERM, HR	<ul style="list-style-type: none"><li>■ develop policies and interpret standards related to handling and disposal of hazardous wastes, including ACM.</li></ul>

<b>This person or organization...</b>	<b>will...</b>
Manager, Vehicle Operations, Delivery	<ul style="list-style-type: none"> <li>■ develop policies and supporting processes to ensure elimination of ACM in vehicles.</li> <li>■ develop policies that direct the field to: <ul style="list-style-type: none"> <li>— prevent exposures.</li> <li>— establish a requirement that managers and craft employees must follow proper work practices and procedures to prevent exposure to asbestos fibers from brake lining and clutch face assemblies unless the absence of ACM is confirmed and documented.</li> </ul> </li> </ul>
Vice President, Supply Management	<ul style="list-style-type: none"> <li>■ as necessary, develop policies, processes, or specifications to ensure that ACM is eliminated from existing and new equipment and products.</li> <li>■ establish contracts for asbestos-related work that cannot be performed using OSHA-approved controls in Appendix F.</li> </ul>
Vice President, Engineering	<ul style="list-style-type: none"> <li>■ develop policies and processes to ensure that ACM is eliminated from existing and new equipment and products.</li> </ul>
Manager, Technology Acquisition Management, Engineering	<ul style="list-style-type: none"> <li>■ develop vehicle specifications that require non-asbestos brake systems in all new vehicle purchases.</li> <li>■ develop vehicle-related equipment specifications that require non-asbestos components.</li> </ul>

<b>This person or organization...</b>	<b>will...</b>
Maintenance Policies and Programs	<ul style="list-style-type: none"> <li>■ establish processes that involve ACMs in equipment (e. g., repairing and replacing conveyor motors and other parts and replacing brakes on PITs) in accordance with the controls described in Appendix F of 29 CFR 1910.1001.</li> </ul>

## Areas

<b>This person or organization...</b>	<b>will...</b>
Area Managers, Safety	<ul style="list-style-type: none"> <li>■ monitor asbestos control programs related to brake and clutch work.</li> </ul>
Area Managers, Human Resources	
Area Managers, Environmental Programs	<ul style="list-style-type: none"> <li>■ monitor pollution prevention, area asbestos control plans, and hazardous waste programs as they relate to asbestos control.</li> </ul>
Area Operations Support and Maintenance Managers	<ul style="list-style-type: none"> <li>■ confirm that local VMF and maintenance managers follow exposure control and work procedures.</li> </ul>

## Performance Clusters

This person or organization...	will...
Managers of VMFs, plants, or other operations where brake and clutch work are performed	<ul style="list-style-type: none"> <li>■ determine if asbestos-containing brake and clutch materials are in use.</li> <li>■ confirm that employees and on-premises contractors use correct work practices and controls when working with ACM.</li> <li>■ document negative findings (for presence of ACM) for OSHA compliance.</li> </ul>
Safety and Medical Personnel	<ul style="list-style-type: none"> <li>■ conduct frequent inspections to ensure that proper work practices and controls are in use.</li> <li>■ coordinate training.</li> <li>■ arrange for air monitoring when necessary to ensure compliance with the OSHA asbestos standard.</li> </ul> <p><b>Note:</b> In most cases air monitoring should not be necessary when using a negative pressure enclosure, HEPA vacuum cleaning method, or a low-pressure, wet cleaning method, as described in Appendix F of 29 CFR 1910.1001. Ample data exists to show that these methods reduce employee exposure well below the PEL.</p>

# Acronyms

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The following acronyms are used in this MI:

ACM	asbestos-containing material (any material containing more than 1 percent asbestos)
CFR	Code of Federal Regulations
HEPA	high efficiency particulate air
OSHA	Occupational Safety and Health Administration
PEL	permissible exposure limit
PIT	powered industrial truck
VMF	vehicle maintenance facility



**Excerpts from 29 CFR 1910.1001**

**29 CFR 1910.1001, Asbestos**

\* \* \* \* \*

(f) *Methods of compliance—*

\* \* \* \* \*

(3) Specific compliance methods for brake and clutch repair:

(i) Engineering controls and work practices for brake and clutch repair and service. During automotive brake and clutch inspection, disassembly, repair and assembly operations, the employer shall institute engineering controls and work practices to reduce employee exposure to materials containing asbestos using a negative pressure enclosure/HEPA vacuum system method or low pressure/wet cleaning method, which meets the detailed requirements set out in Appendix F to this section. The employer may also comply using an equivalent method which follows written procedures which the employer demonstrates can achieve results equivalent to Method A in Appendix F to this section. For facilities in which no more than 5 pair of brakes or 5 clutches are inspected, disassembled, repaired, or assembled per week, the method set forth in paragraph (D) of Appendix F of this section may be used.

(ii) The employer may also comply by using an equivalent method which follows written procedures, which the employer demonstrates can achieve equivalent exposure reductions as do the two “preferred methods.” Such demonstration must include monitoring data conducted under workplace conditions closely resembling the process, type of asbestos-containing materials, control method, work practices and environmental conditions which the equivalent method will be used, or objective data, which document that under all reasonably foreseeable conditions of brake and clutch repair applications, the method results in exposures which are equivalent to the methods set out in Appendix F to this section.

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**29 CFR 1910.1001, Appendix F**

**Appendix F to § 1910.1001—Work Practices and Engineering Controls for Automotive Brake and Clutch Inspection, Disassembly, Repair and Assembly—Mandatory**

This mandatory appendix specifies engineering controls and work practices that must be implemented by the employer during automotive brake and clutch inspection, disassembly, repair, and assembly operations. Proper use of these engineering controls and work practices will reduce employees' asbestos exposure below the permissible exposure level during clutch and brake inspection, disassembly, repair, and assembly operations. The employer shall institute engineering controls and work practices using either the method set forth in paragraph (A) or paragraph (B) of this appendix, or any other method which the employer can demonstrate to be equivalent in terms of reducing employee exposure to asbestos as defined and which meets the requirements described in paragraph (C) of this appendix, for those facilities in which no more than 5 pairs of brakes or 5 clutches are inspected, disassembled, reassembled and/or repaired per week, the method set forth in paragraph (D) of this appendix may be used:

*(A) Negative Pressure Enclosure/HEPA Vacuum System Method*

- (1) The brake and clutch inspection, disassembly, repair, and assembly operations shall be enclosed to cover and contain the clutch or brake assembly and to prevent the release of asbestos fibers into the worker's breathing zone.
- (2) The enclosure shall be sealed tightly and thoroughly inspected for leaks before work begins on brake and clutch inspection, disassembly, repair, and assembly.
- (3) The enclosure shall be such that the worker can clearly see the operation and shall provide impermeable sleeves through which the worker can handle the brake and clutch inspection, disassembly, repair and assembly. The integrity of the sleeves and ports shall be examined before work begins.
- (4) A HEPA-filtered vacuum shall be employed to maintain the enclosure under negative pressure throughout the operation. Compressed air may be used to remove asbestos fibers or particles from the enclosure.
- (5) The HEPA vacuum shall be used first to loosen the asbestos-containing residue from the brake and clutch parts and then to evacuate the loosened asbestos-containing material from the enclosure and capture the material in the vacuum filter.
- (6) The vacuum's filter, when full, shall be first wetted with a fine mist of water, then removed and placed immediately in an impermeable container, labeled according to paragraph (j)(2)(ii) of this section and disposed of according to paragraph (k) of this section.
- (7) Any spills or releases of asbestos-containing waste material from inside of the enclosure or vacuum hose or vacuum filter shall be immediately cleaned up and disposed of according to paragraph (k) of this section.

*(B) Low Pressure/Wet Cleaning Method*

- (1) A catch basin shall be placed under the brake assembly, positioned to avoid splashes and spills.
- (2) The reservoir shall contain water containing an organic solvent or wetting agent. The flow of liquid shall be controlled such that the brake assembly is gently flooded to prevent the asbestos-containing brake dust from becoming airborne.
- (3) The aqueous solution shall be allowed to flow between the brake drum and brake support before the drum is removed.
- (4) After removing the brake drum, the wheel hub and back of the brake assembly shall be thoroughly wetted to suppress dust.

- (5) The brake support plate, brake shoes and brake components used to attach the brake shoes shall be thoroughly washed before removing the old shoes.
- (6) In systems using filters, the filters, when full, shall be first wetted with a fine mist of water, then removed and placed immediately in an impermeable container, labeled according to paragraph (j)(2)(ii) of this section and disposed of according to paragraph (k) of this section.
- (7) Any spills of asbestos-containing aqueous solution or any asbestos-containing waste material shall be cleaned up immediately and disposed of according to paragraph (k) of this section.
- (8) The use of dry brushing during low pressure/wet cleaning operations is prohibited.

*(C) Equivalent Methods*

An equivalent method is one which has sufficient written detail so that it can be reproduced and has been demonstrated that the exposures resulting from the equivalent method are equal to or less than the exposures which would result from the use of the method described in paragraph (A) of this appendix. For purposes of making this comparison, the employer shall assume that exposures resulting from the use of the method described in paragraph (A) of this appendix shall not exceed 0.004 f/cc, as measured by the OSHA reference method and as averaged over at least 18 personal samples.

*(D) Wet Method*

- (1) A spray bottle, hose nozzle, or other implement capable of delivering a fine mist of water or amended water or other delivery system capable of delivering water at low pressure, shall be used to first thoroughly wet the brake and clutch parts. Brake and clutch components shall then be wiped clean with a cloth.
- (2) The cloth shall be placed in an impermeable container, labeled according to paragraph (j)(2)(ii) of the standard and then disposed of according to paragraph (k) of the standard, or the cloth shall be laundered in a way to prevent the release of asbestos fibers in excess of 0.1 fiber per cubic centimeter of air.
- (3) Any spills of solvent or any asbestos-containing waste material shall be cleaned up immediately according to paragraph (k) of the standard.
- (4) The use of dry brushing during the wet method operations is prohibited.