



# Environment, Safety and Health Bulletin

## Asbestos Awareness

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**Special Operations Reports** are issued to initiate management actions in response to events whose subject matter represents significant Departmental safety concerns.

**Environment, Safety and Health Alerts** are issued to initiate immediate action on potentially significant safety issues.

**Environment, Safety and Health Bulletins** are issued to share information and recommend actions on potential safety issues.

**Safety Advisories** are issued to provide information to the DOE Complex on potentially significant safety or health issues.

### PURPOSE

This Bulletin provides information on a safety and environmental concern that may impact operations at Department of Energy (DOE) facilities. Specifically, the concern is the safe handling of asbestos-containing materials (ACM) that complies with safety and environmental regulations.

### BACKGROUND

DOE records show that there have been over 40 incidents involving ACM over the past 5 years. About 20 percent of the incidents resulted in exposures to workers, and another 20 percent involved releases to the environment and disposal violations, some of which resulted in Notices of Violation and fines. The remaining cases consisted of handling and removal deficiencies that had the potential for releases and exposure. The Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) are responsible for regulating environmental exposure and protecting workers from asbestos exposure.

### WHAT ARE THE HAZARDS?

Asbestos may be found in insulation, roofing material, ceiling tile, fire barrier, flooring, wallboard, cement tile, and gaskets. Common types of asbestos include chrysotile, used in asbestos cloth and rope, amosite, used in bulk asbestos insulation, and crocidolite, which was rarely used. Inhaled airborne asbestos fibers are trapped deeply in the lungs and may lead to scarring, known as asbestosis (characterized by shortness of breath, cough, and loss of lung function), lung cancer, or mesothelioma (an incurable cancer of the outer lining of the lung, chest cavity, or the abdominal wall). The latency period for these cancers is often 15-30 years. Smoking increases the risk of contracting an asbestos exposure-related disease.

### WHEN IS ASBESTOS A HAZARD?

In the asbestos industry, the term "friable" is used to describe asbestos that can be reduced to dust by hand pressure. Friable ACM can become airborne and therefore inhalable when disturbed. Intact ACM in good condition can be left alone if it is monitored. Sawing, machine grinding, sanding, and dry-buffing are ways of causing non-friable ACM, such as transite siding and floor tiles, to release airborne fibers.

### HOW DO I CONTROL THE HAZARDS?

OSHA, EPA, and state and local agencies generally have detailed control requirements for work involving ACM. Work should be planned

and executed in accordance with the Integrated Safety Management (ISM) Core Functions and Guiding Principles. This means taking steps to:

- Ensure that effective work controls are in place in buildings with ACM.
- Avoid disturbances that can generate dust during routine maintenance and cleaning near ACM.
- Promptly notify EPA of spills or releases to the environment in quantities greater than one pound.
- Notify the appropriate state agency and EPA prior to building demolition or any regulated renovation where ACM is suspected.
- Comply with National Emission Standard for Hazardous Air Pollutants (NESHAP) requirements.
- Wear the proper respiratory equipment and clothing.
- Work in controlled areas that are clearly marked by asbestos warning signs and barricaded to prevent unauthorized entry.
- Provide appropriate dust controls, including water augmented with a wetting agent before and during ACM removal.
- Use negative-pressure enclosures with transparent view ports when required.
- Do not drop, throw, slide, or damage ACM during removal.
- Seal wastes in leak-tight labeled containers; store in controlled area.
- Prepare and maintain appropriate Waste Shipping Records.
- Transport ACM waste to an approved disposal site regulated in accordance with **40 CFR 61.154**, *Standard for active waste disposal sites*.

### SUMMARY

- Exposure to asbestos may lead to lung cancer.
- Asbestos exposures and releases can be avoided.
- Asbestos work is regulated by both OSHA and EPA, with possible EPA fines up to \$25,000/day.
- Take care to consider ACM in all work planning.

### WHERE CAN I GET ADDITIONAL INFORMATION?

- Your Safety and Health Office
- Information on the Web:  
<http://www.epa.gov/asbestos>  
<http://www.osha.gov/SLTC/asbestos>



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# PREVENT EVENTS

## Learning from Industry Experience

**PREVENT EVENTS** is intended for use by personnel during morning meetings, pre-job briefings, and work unit meetings to communicate key industry experience.

### Management:

1. What training have we provided our workers on working with asbestos-containing materials?
2. Have we identified EPA reporting and work practice requirements for demolition and renovation of facilities containing ACM?
3. Do we have a formal program with written procedures for handling ACM at our facility that addresses EPA and OSHA requirements?
4. Do we know where ACM is or could potentially be at our site?
5. Have we made available to our workforce the proper respirators, clothing, and monitoring equipment?
6. Is equipment for dust control and negative-pressure enclosures available when needed?

### Supervisors and Workers:

1. Do we know whether or not the insulation, fill, roofing material, ceiling tile, fire barrier, gaskets, flooring, wallboard, or cement siding on the job are ACM?
2. Have the job planning and work permit considered the possibility of encountering ACM?
3. What type of respiratory gear and clothing should we wear?
4. Will someone be monitoring the air space where we will be working?
5. Do we need a wetting agent for this work? If so, what is the agent and where is its Material Safety Data Sheet?
6. Do we need dust-control equipment or negative-pressure enclosures?
7. What can we do to prevent fugitive dust emissions from ACM removal work?
8. Should we seal and label the ACM waste each day?
9. Has [29 CFR 1910.1001](#), the OSHA asbestos standard for industry, been reviewed and discussed with workers?
10. Could the ACM contain hazardous waste, radioactive waste, or polychlorinated biphenyls (PCBs) that may be subject to the requirements of additional statutes or DOE Orders?

