



Asbestos in the Workplace

EPIC Fact Sheet

Asbestos in the workplace: Knowledge is the first step to safety and regulatory compliance

General Information:

- Asbestos refers to a group of mineral fibers that are virtually impossible to destroy with heat or chemicals.
- Asbestos was used heavily in residential and commercial buildings prior to 1980s AND is still used (although with a reduced frequency) in a variety of modern materials. Asbestos is not a banned substance for use in the United States!
- Asbestos has amazing physical properties, which makes it an appealing additive to many materials:
 - Fireproof
 - Chemical resistant
 - Electrical and thermally insulating
 - Filaments make an excellent binding aggregate or matrix in mastics, resins, cement, etc.
- The same properties that make asbestos a desirable building material, makes it a hazard if it enters the human body through inhalation or ingestion.
- The most dangerous materials containing asbestos fibers are **friable**, meaning; they can be crushed into a dust with hand pressure. This dust can be inhaled or ingested.
- Asbestos fibers can persist in the body and can cause diseases such as:
 - Asbestosis (scarring of the lungs)
 - Mesothelioma (cancer of the lining around the organs)
 - Lung cancer
- Materials containing greater than 1% asbestos are called Asbestos Containing Materials (**ACM**). If a material contains <1% asbestos it is referred to as a material that contains asbestos fibers. Both ACM and material that contains asbestos fibers are Federally regulated in the USA.
- Asbestos is heavily regulated at any concentration.
 - In the U.S. the EPA and OSHA regulate asbestos at the federal and state levels.
 - EPA regulates asbestos release to the environment.
 - OSHA regulates employee exposure to asbestos.
 - Some local jurisdictions (states, counties municipalities, fire departments, etc.) further regulate asbestos. For example, federally asbestos inspections do not expire, but in Maricopa County asbestos inspections can only be relied upon for 12 months from the date of inspection.

- Violations of asbestos regulations have joint and several liability and can result in citations, fines and prison sentences for anyone with command and control in a building (e.g. owner, manager, tenant, general contractor, etc.) regardless of their involvement.

Working with and Around Asbestos Containing Materials (ACM):

- Many building materials contain asbestos fibers in some form or another.
- A building containing asbestos can still be operated and maintained safely while meeting the federal requirements. Maintaining asbestos in place generally has the lowest hazard potential.
- The only way to prove materials do not contain asbestos is to have them sampled by an Asbestos Hazard Emergency Response Act (AHERA) Asbestos Building Inspector with analysis of samples by an accredited laboratory.
- In the absence of asbestos survey data, all materials not purely wood, glass, or metal must be assumed to potentially contain asbestos fibers.
- Any activity that produces dust from building materials is a high risk for releasing asbestos fibers.
- OSHA requires that employees not be exposed to asbestos fibers above the Permissible Exposure Limit (PEL) or Short Term Excursion Limit (STEL).
 - The only way to know if your employees are being exposed to asbestos is to test the materials they disturb (or will disturb), or monitor their activities for fiber release during a specific activity.
 - Only experienced, trained, protected, insured and AHERA certified environmental professionals (e.g. Asbestos Inspectors, Management Planners, and Project Designers) should be retained to test and assist in management of materials containing asbestos fibers.
 - Only experienced, trained, certified, protected and insured employees or asbestos contractors should disturb asbestos.
 - The EPA and OSHA provide guidance and training programs for facility managers and employees who operate and work in buildings containing ACM.

Federally Regulated Asbestos Containing Material Projects:

- The EPA regulates the disturbance and disposal of potential or confirmed asbestos containing materials (ACM) under the National Emission Standards for Hazardous Air Pollutants (NESHAP).
 - All remodeling or demolition projects that would disturb more than 160ft², 260 linear ft, or 35 ft³ of potential ACM are required to:
 - Have a certified asbestos inspector characterize and test the materials for asbestos content, or
 - Assume the materials are asbestos positive.
 - Asbestos containing materials with certain physical characteristics (i.e. friable) that will be removed in sufficient quantities are regulated ACM (RACM).
 - Disturbing RACM requires:

- Notifying in writing the Arizona Department of Environmental Quality (ADEQ) of the project, providing the relevant details and in some jurisdictions (paying a notification fee).
- The renovation / demolition take place with proper engineering controls in place.
- The waste stream is managed appropriately.

Photos with Descriptions:

	
<p>Asbestos containing thermal system insulation (TSI). (Photo by Clark Seif Clark, Inc.)</p>	<p>Asbestos abatement in progress. (Photo by Derrick A. Denis of Clark Seif Clark, Inc.)</p>
	
<p>EPA 20T-2003: One of several sources of guidance for facility managers.</p>	<p>Asbestos containing spray applied fireproofing (Photo by Derrick A. Denis of Clark Seif Clark, Inc.)</p>

Resources to Learn More:

- OSHA asbestos guidelines
 - <https://www.osha.gov/SLTC/asbestos/>
- EPA asbestos guidelines
 - <https://www.epa.gov/asbestos>
 - <https://www.epa.gov/asbestos/information-owners-and-managers-buildings-contain-asbestos>
- Maricopa County asbestos regulations help sheet
 - <https://www.maricopa.gov/DocumentCenter/View/45605/Asbestos-NESHAP-Regulations-Help-Sheet-PDF>
- Additional DR EPIC resources (videos, FAQs, Helpline email and phone number)
 - If you have additional questions:
 - Send an email to the Emergency Preparedness Infection Control (EPIC) at EPIC@AZHCA.org, or leave a message at 602-241-4644
 - Visit the EPIC Web Resource Pages at epic.disasterreadyaz.org

The Disaster Ready Emergency Preparedness Infection Control (DR EPIC) program provides education and technical assistance for skilled nursing providers throughout the state. Individual providers will need to exercise their independent discretion in how to apply this information and technical assistance to the unique operation of each facility. For that reason, a facility's exercise of its professional judgment and due diligence in utilizing the program for infection control and risk management practices is solely within the facility's control for which it is entirely responsible.