

The University of Southern Indiana Asbestos Management Plan

Purpose

The purpose of this Asbestos Management Plan is to outline how the University manages asbestos in-house (operations and maintenance) and how the University manages asbestos abatement projects.

Goals/Objectives

- Identification, assessment and periodic surveillance of asbestos-containing material (ACM)
- Provide emergency response to fiber release episodes
- Compliance with record keeping requirements (sampling data, manifests, survey reports) as per federal and state requirements
- Ensuring asbestos abatement project designs comply with federal, state, city and university regulatory requirements
- Protecting the health and safety of the university community during abatement projects through project monitoring and quality control.

Responsibilities

Environmental Health and Safety

- Oversee all asbestos surveys and abatement activities
- Schedule and provide Asbestos Awareness Training for all affected employees
- Maintain asbestos-related documentation, including building surveys, training records, waste manifests and abatement project documents

Facilities Management

- Review work requests and tickets for the potential to disturb suspect asbestos-containing material (ACM). Any work request or ticket that requires cutting, drilling, sawing, grinding, or otherwise disturbing suspect asbestos-containing material shall be sent to Environmental Health and Safety for further consideration
- Coordinate with Environmental Health and Safety to schedule asbestos awareness training for employees annually
- Notify Environmental Health and Safety when new employees are hired to ensure that the appropriate training is administered
- Submit to Environmental Health and Safety detailed plans for all renovation and demolition projects for review of the potential to disturb asbestos-containing materials

Architecture, Engineering and Construction

- Submit to Environmental Health and Safety detailed plans for all renovation and demolition projects for review of the potential to disturb asbestos-containing materials

Property Management, Real Estate, Investment, Construction Programs, Special Projects and all Outside Contractors

- Submit to Environmental Health and Safety detailed plans for all renovation and demolition projects for review of the potential to disturb asbestos-containing materials

Asbestos Management

The University follows the EPA recommended approach for asbestos management. EPA endorses a practical approach where intact asbestos containing building materials are managed in place. Only if the material is damaged or is expected to be impacted by renovation or repair work will it be removed.

- Environmental Health and Safety contracts third party industrial hygienists to perform air monitoring and project oversight, during, and after abatement projects to ensure air quality criteria established by the EPA, OSHA, and the **state of Indiana** is maintained.
- Contractors also monitor their own employees involved in abatement activities.
- All projects are conducted to minimize disruption to campus activities. All asbestos abatement projects are clearly labeled to indicate to the campus community that such work is ongoing.
- Only wet methods or a HEPA filtered vacuum are used for emergency asbestos cleanup activities.
- Keeping the asbestos wet during removal ensures that the asbestos does not become airborne.
- Respiratory protection is required when working with asbestos. Emergency cleanup activities will be contracted out.
- Indiana law requires that projects involving more than 160 square feet or 260 linear feet of ACM, require at least a 10-day notification before the start of the abatement project.
- ACM is properly disposed of using licensed disposal firms.

Asbestos Inspections and Surveys

- Inspections and surveys are conducted by people who have received adequate training to perform these tasks competently
- All suspect asbestos-containing materials are considered "Presumed Asbestos Containing Materials" (PACM) until analysis has proven otherwise
- Bulk sample analysis by Polarized Light Microscopy (PLM) or Transmission Electron Microscopy (TEM) methods is performed by an American Industrial Hygiene Association (AIHA) and National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory
- Survey records are maintained by Environmental Health and Safety and are made available to employees, staff, students and contractors
- Control measures to prevent asbestos exposure take effect when any work is performed on or around ACM. Regulated areas are established to indicate locations where a reasonable possibility for airborne levels of asbestos may exceed the OSHA Permissible Exposure Limit (PEL) of 0.1 asbestos fibers per cubic centimeter (flcc) of air.

Asbestos Awareness Training

Asbestos Awareness Training is provided to all University employees who have the potential to impact asbestos-containing material. Affected groups include:

- Facilities Operations
- Technical Services
- Housekeeping
- **Security**

Asbestos Abatement Operations

A person trained in the provisions of the Asbestos National Emissions Standard for Hazardous Air Pollutants (NESHAP) supervises all asbestos abatement operations. This person is present during all asbestos-containing material (ACM) abatement operations.

All asbestos abatement operations at the University shall comply with Section 112 of the Clean Air Act, as amended by Section 301 of the 1990 CAA Amendment, and with all of the requirements of the Asbestos NESHAP at 40 CFR 61.140 and with the "Control of Asbestos" at Title 20 DCMR, Section 800.

Individuals and business entities performing asbestos abatement must have a license from the Indiana Department of Environmental Management.

A detailed written description of the project work scope, including the amount of ACM to be abated, the exact location, the type of the material, and the exact work practices used to safely remove the ACM, shall be prepared by a person trained to competently perform this task.

Air Sampling

Air sampling is conducted before, during and after abatement, to ensure that the asbestos operations on site has been adequately removed and that the area has been properly cleaned.

All final clearance air sampling to be analyzed by phase contrast microscopy shall be conducted in accordance with the National Institute of Occupational Safety and Health (NIOSH) method 7400 for all projects that contain less than NESHAP quantities. The clearance level for re-occupancy using PCM analysis is 0.01-fibers/cubic centimeter of air (f/cc).

All final clearance air sampling to be analyzed by transmission electron microscopy shall be conducted in accordance with the U.S. Environmental Protection Agency (EPA) Title 40 of the OFR Part 763 Final Rule (Asbestos Containing Materials in Schools) for all projects that contain greater than NESHAP quantities.

The clearance level for re-occupancy, using TEM analysis is less than 70 structures per square millimeter per filter area.

All final clearance air sampling shall be conducted by a licensed project monitor, trained to competently perform the task

Record Keeping

- Signed manifests returned from the asbestos disposal facilities shall be maintained by Environmental Health and Safety.
- All insurance documents and business licenses shall be kept on file at Environmental Health and Safety.
- Copies of all notifications and permits shall be submitted to Environmental Health and Safety prior to the commencement of an abatement project.
- All abatement project documentation including final abatement and air monitoring reports will be kept on file at Environmental Health and Safety for a minimum of thirty years.

Contact Information:

- Safety Manager - Bryan Morrison
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Definitions

Abatement: Procedures to control fiber release from asbestos containing materials. Includes removal, encapsulation, enclosure, repair, demolition and renovation activities.

Air monitoring: The process of measuring the fiber content of a known volume of air collected during a specific period of time. The procedure normally used for measuring airborne asbestos follows the National Institute of Occupational Safety and Health (NIOSH) Standard Analytical Method for Asbestos in Air of NIOSH Method 7400. For clearance air monitoring for re-occupancy, transmission electron microscopy methods may be used for lower detectability and specific fiber identification.

Asbestos: Common name for a group of naturally occurring minerals that separate into thin but strong fibers. Common types of asbestos include chrysotile and amosite.

Asbestos containing material: (ACM) - Material composed of asbestos of any type in an amount greater than 1% by weight, either alone or mixed with other fibrous or non-fibrous materials.

Asbestos-containing waste material: Asbestos containing material or asbestos contaminated objects requiring disposal.

Friable asbestos: Asbestos containing material which can be crumbled to dust, when dry, under hand pressure.

HEPA Filter: A High Efficiency Particulate Air filter capable of removing particles greater than or equal to 0.3 microns in diameter with 99.97% efficiency.

HEPA vacuum: A vacuum system equipped with HEPA filtration.

NESHAPS: The National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 61).

Non-Friable Asbestos Containing Material: Materials in which asbestos is bound in a matrix which cannot, when dry, be crumbled, pulverized or reduced to powder by hand pressure (such as floor tile).

Permissible Exposure Limits (PELs): 1. Time Weighted Average (TWA): the employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter as an eight (8) hour time weighted average. 2. Excursion Limit (EL): the employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air as averaged over a sampling period of thirty (30) minutes.

Presumed Asbestos Containing Material (PACM): thermal system insulation and surfacing material in buildings constructed no later than 1980, which must be assumed to contain asbestos until it has been analyzed to verify or negate its asbestos content.

Removal: The stripping of any asbestos containing material from surfaces or components of a facility.

Work area: Designated rooms, spaces or areas of the project in which asbestos abatement actions are to be undertaken.