Asbestos Management Plan

Office of Environmental Health & Safety

Revised November 2022

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Introduction

The Cleveland State University (CSU) Asbestos Management Program has been developed to comply with the requirements of the Occupational Safety and Health Administration (OSHA) Asbestos Standards for General Industry (29 CFR 1910.1001) and Construction (29 CFR 1926.1101), the Environmental Protection Agency (EPA), Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 61 Subpart M), and Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763 Subpart E & G), and Ohio Environmental Protection Agency (OEPA) found in the Ohio Administrative Code's (OAC) Chapter 3745-20.

CSU is committed to the health and safety of the entire campus community (employees, students, and visitors). The presence of asbestos containing material (ACM) in some University buildings has been established through survey and inspection procedures. The objectives of this asbestos management program include, but are not limited to, the inspection and identification of asbestos-containing materials (ACM), hazard communication, training, maintenance and repair or removal ACM in University owned facilities. This program is intended to protect employees, students, and visitors from potential health hazards associated with asbestos, and to ensure ACM will be handled in compliance with all applicable federal, state, and local regulations.

Scope

The CSU Asbestos Management Program applies to all University owned buildings and employees (including contracted employees) performing maintenance, repair, and housekeeping services. In addition, all capital planning, construction, demolition, and renovation projects are subject to the provisions of this program. Facilities Management Staff and Project Managers shall contact EHS early in the planning stages of a project to reduce the potential for regulatory liability and to ensure an adequate source of funding in the project budget to address asbestos issues. EHS shall be consulted and/or notified prior to physically disturbing any building material, structure, or other potentially ACM.

I. Program Administration

EHS shall be responsible for administration of the University's Asbestos Management Program. Various departments across campus may be affected by the provisions of this program, including but not limited to: Facilities Services, Informational Service and Technology (IS&T), and Campus Safety.

A. Environmental Health and Safety – Asbestos Management

EHS is responsible for the development, implementation, and administration of the University Asbestos Management Program, including but not limited to:

- Asbestos Management Program development, direction, and implementation.
- Developing, implementing, and conducting and/or facilitating appropriate asbestos training programs.
- Coordinating response to all emergencies on campus involving ACM.

- Conducting and/or supervising all asbestos building surveys and inspections.
- Reviewing all asbestos abatement projects for compliance.
- Management and oversight of activities performed by asbestos consultants.
- Conduct air monitoring when necessary.
- Maintaining all records and documentation pertaining to asbestos compliance.

II. Permissible Exposure Limits (PEL)

OSHA has established the PEL for airborne concentrations of asbestos which no employee may be exposed at 0.1 fibers per cubic centimeter (f/cc) for an eight (8) hour time weighted average (TWA).

In addition, a short-term exposure limit (STEL) for asbestos as averaged over a sampling period of thirty (30) minutes at 1.0 f/cc.

III. Location of Asbestos-Containing Material on Campus

The University has conducted multiple surveys and inspections of its buildings for ACM. Locations for the following University buildings have been identified to contain ACM:

Administration Center
Advanced Manufacturing Annex
Berkman Hall
Campus Safety
CAMP/MAGNET building Cole Center/Campus International
East Parking Garage
Fenn Tower
Field Locker Building
Field Services Building
Health Sciences
Law Building
Law Library
Mather Mansion
Middough Building
Wolstein Center
Music & Communication
Parker Hannifin Hall
Physical Education
Plant Annex
Plant Services
Rhodes Tower
Science Building
Science Research Building
Stillwell Hall (Fenn Hall)
Student Center
Theater Arts
Union Building
University Parking Facility
Wallingford Coffee Building
West Parking Garage

IV. Classification of Asbestos Work

OSHA classifies work involving ACM by the class and type of material:

- Class I Asbestos Work – Activities involving the removal of thermal system insulation (TSI) and surfacing asbestos containing material (ACM) and presumed asbestos containing material (PACM).
- Class II Asbestos Work – Activities involving the removal of ACM which is not TSI or surfacing material. This includes, but is not limited to: the removal of miscellaneous ceiling, material, wallboard, flooring, roofing and shingles, and construction mastics.
- Class III Asbestos Work – Any repair and maintenance operations where ACM is likely to be disturbed, up to 1 glove bag or disposal bag.
- Class IV Asbestos Work – Maintenance, trade, and custodial activities during which employees may be in contact but do not disturb ACM and PACM.

V. Class I, II, and II Asbestos Work

A. Facilities Services

Facilities Services conducts maintenance in areas known to contain ACM, repairs ACM that may become damaged during maintenance, and performs major or minor abatement. Designated individuals assigned to these tasks possess certification and hold state licensure (if required). Team members are provided medical exams and fit testing of respiratory equipment (PPE). Designated individuals working with ACM are to:

- Respond to emergencies involving ACM and potential fiber releases.
- Coordinate removal and disposal of all ACM with EHS.

B. Outside Contractors

Many University departments may facilitate work that is performed by outside contracted employees. All University departments, including those identified in this management plan are responsible for notifying all outside contracted employees in writing of the presence and location of ACM in their respective buildings. These departments may obtain information about asbestos in their buildings by contacting EHS.

VI. Class IV Asbestos Work

Departments which designate employees not required to handle, but may work around, potentially contact, and subsequently be impacted by the presence of ACM, must provide Asbestos Awareness Training on an annual basis to these employees.

VII. Building Inspection and Surveillance of ACM on Campus

A. Existing Buildings

Surveys identifying the location of ACM in existing campus facilities have been performed. Survey reports include lists of homogenous materials, lab reports, assessment of condition, and hazard potential of each ACM, and approximate square or linear footage. Written reports also include photographs and a floor plan of every building that illustrates the location of ACM.

B. New Construction

It is recommended that new construction/remodeling projects include costs for sampling of building material to be used in the project prior to installation, eliminating the need for a construction survey prior to renovation.

VIII. Work Practices

Work practices are established as being performed by two major groups:

- CSU employees
- Contracted employees

IX. CSU Employees

Building construction and/or renovation activities physically performed by CSU employees require the following actions prior to beginning any construction and/or renovation activities:

A. Upon receipt of a Service Request and/or Work Order, the responsible department shall review the Building Inspection Report for that building room/area to verify the presence or absence of ACM.

B. If the building area/room is indicated as not having any ACM, work may then proceed.

C. If the building area/room is slated for abatement of ACM (Class I and II Work), the employees shall:

1. Provide notification to the Ohio Environmental Protection Agency at least ten (10) working days prior to performing the work where applicable.
2. Follow procedures set forth by OSHA for Class I and II Work including but not limited to: use of wet methods, blame resistant polyethylene film six (6) mil in thickness, glove bagging, erecting critical barriers, modification/isolation of building ventilation system to that area, air filtration devices (AFD's), providing for a minimum of four (4) air exchanges per hour, maintaining a negative pressure differential of at least or in excess of 0.02 inches of water.
3. Notify EHS 48 hours prior to the start of the project.

4. Establish a regulated area where airborne asbestos is likely to exceed the PEL and post warning signs bearing the following information:

DANGER ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS

The following information must be added when PPE is required:

WEAR RESPIRATORY AND PROTECTIVE CLOTHING IN THIS AREA

5. Wear appropriate disposable personal protective clothing that may include coveralls or similar whole body clothing, head coverings or hood, gloves and foot coverings, and adhere to decontamination procedures set forth by OSHA.
6. Wear respiratory protection in conjunction with the University's Respiratory Protection Program, unless a negative exposure assessment has been performed or air monitoring has demonstrated the PEL for asbestos has not been exceeded.
7. Perform daily air monitoring for employees working in a regulated area.
8. Facilitate clearance monitoring before returning the room/area to use.
9. Report any other damaged ACM in the area immediately to EHS.

D. If the building area/room is indicated as having ACM, and the work activity and/or repair involves disturbing existing ACM (Class III Work), then the employees shall:

1. Follow procedures set forth by OSHA for Class III Work which includes but is not limited to: wet methods and local exhaust ventilation, when appropriate. If the possibility of exposure exists, isolate the area from the building HVAC system.
2. Wear appropriate disposable personal protective clothing that may include coveralls or similar whole body clothing, head coverings or hood, gloves and foot coverings, and adhere to decontamination procedures set forth by OSHA.
3. Where drilling, cutting, abrading, sanding, chipping, breaking, or sawing of TSI takes place, employees shall employ the use of impermeable drop cloths, glove bag systems, small enclosures or other effective means of isolation and techniques that will capture fibers.
4. Wear respiratory protection in conjunction with the University's Respiratory Protection Program, unless a negative exposure assessment has been performed or air monitoring has demonstrated the PEL for asbestos has not been exceeded.
5. Report any other ACM that is observed to be damaged in the area immediately to EHS.

X. Contractors

Contractors working in areas where ACM is present shall comply with all state and federal regulatory agencies.

XI. Disposal of Asbestos Containing Waste

All asbestos containing waste material is to be saturated with amended water and placed polyethylene bags (double bagged) at least six (6) mil in thickness bearing the following information/labels:

First label: In accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication Standard:

MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATH DUST
AVOID CREATING DUST

Second label: In accordance with the U.S. Department of Transportation regulation on hazardous waste marking, 49 CFR parts 171 and 172 Hazardous Substances Final Rule:

RQ (ASBESTOS)
CLASS 9
NA 2212
P.G.III

University employees trained to work with and disturb ACM as part of their duties shall contact EHS to manage the removal. All asbestos waste material shall be stored in a secured area and disposed of using licensed transporters and disposal facilities.

Outside contracted employees shall be responsible for appropriate removal of ACM off campus. Waste manifests and other records shall be provided to the University's EHS department.

XII. Employee Notification

Employees will be notified whenever applicable and prior to any work with ACM in their immediate or adjacent area.

XIII. Labeling

Signage identifying the presence and location of ACM shall be posted at the entrance to mechanical rooms or areas that contain TSI and surface material. Specific work practices to ensure the material is not disturbed shall also be present.

XIV. Medical Surveillance

Designated individuals who possess certifications to perform Class I, II, and III Asbestos Work are required to participate in the Medical Surveillance Program. Prior to performing asbestos work, individuals are to undergo a medical examination.

XV. Respiratory Protection

Designated individuals who are required to wear respiratory protection are enrolled in the University's Respiratory Protection Program. Initially before assignment, and annually thereafter, workers are to undergo a qualitative fit test.

XVI. Training

Employees are provided required training based on the particular class of work they may perform:

Class I and II Asbestos Work – employees complete a 32-hour course addressing the performance of asbestos abatement activities. Once the initial course has been completed an eight (8) hour refresher will be required every year after the initial course has been completed. Course content includes background information pertaining to asbestos, health effects, personal protective equipment, respiratory protection, safe work practices, and regulatory requirements.

Some employees are provided specialized training on removal of Class II flooring. These employees may remove and replace cracked/damaged floor tile that is non-friable only.

Class III Asbestos Work (Operations and Maintenance) – employees complete a 16-hour course addressing asbestos activities. These employees may be involved in work that may disturb ACM for the purpose of accessing building components and equipment. Course content includes background information pertaining to asbestos, health effects, legal issues, respiratory protection, work practices, supervisory skills, and regulatory requirements. Hands on training includes the use of protective equipment, asbestos removal techniques, and preparation of small work areas for abatement. Class III asbestos workers may act as competent persons for Class III and IV asbestos activities.

Class IV asbestos work – employees complete an asbestos awareness course which includes general information on the types of asbestos, labeling, identifying hazardous areas associated health effects, and how to reduce the risk of exposure using safe work practices.

XVII. Contractor Awareness

Contractors employed by the University shall be informed in writing by the Project Manager (PM) for the project/repair of the location of suspect and known ACM in the area they are to perform work. Contractors shall not disturb any suspect or known ACM unless their employees have received the appropriate training specified for the work, and if applicable hold the appropriate state license.

XVIII. Emergency Response Procedures

There is a small chance that any campus building containing ACM is potentially subject to a fiber release episode. Employees are to adhere to the following protocol when reporting a potential fiber release in an area known to contain ACM:

1. Leave and secure the area in such a manner that prevents entry by unauthorized personnel.
2. Notify the immediate supervisor of the incident.
3. If in the area of fiber release, seek medical attention (be sure to fill out an Occupation Injury/Illness Report).
4. Contact the EHS or Campus Safety Dispatch 216-687-2020. Cell phone users may also dial 9-1-1 and ask the operator to be connected with CSU Police. The CSU dispatch will in turn contact EHS.
5. The Asbestos Coordinator will ensure the area(s) have been properly secured, and facilitate a response by an external abatement contractor, or assign a trained in-house team to make repairs and clean up any debris in a timely fashion.
6. A post-incident review. Will be held to evaluate the response with applicable University departments.

XIX. Recordkeeping

All documentation records pertaining to elements identified in the Asbestos Management Plan (Operations and Maintenance Plan) are maintained by EHS that include but are not limited to:

- Written Operations and Maintenance Plan
- Survey data, including building plans and drawings
- Notifications and labels
- Training programs
- Written Respiratory Protection Program
- Any permits and information pertaining to maintenance and renovation performed, including emergency response
- Abatement records

XX. Air Monitoring

Air samples measuring for asbestos will either use a Phase Contrast Microscopy or Transmission Electron Microscopy method for the following procedures:

- Background
- Environmental
- Final Air Clearance
- Surveillance

A. Air Sampling Requirements

- Minimum of 560 liters is required to be collected for background, environmental, or surveillance monitoring purposes. (It is recommended to collect 1200-1800 liters).
- Minimum of 1200 liters is required for final air clearance.
- Air monitoring results will be reads from a third party lab.
- If results of the readings are listed as “Incomplete” or Overloaded” they are to be deemed as “Void.”