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SAF-360, ASBESTOS OPERATIONS & MAINTENANCE PROGRAM

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1.0 Introduction

1.1 Purpose

The objective of the Operation and Maintenance (O&M) Program is to minimize potential exposure of all building occupants to asbestos fibers in buildings where asbestos containing material (ACM) is present.

1.2 Scope

The O&M Program includes practices and procedures which will be implemented on all Emory University (EU) owned and leased properties to:

- Maintain ACM/PACM in good condition until such time as they will or potentially may be impacted by renovation, or demolition activities, or damaged, at which time the material(s) would require removal by State-licensed, Emory-approved asbestos abatement contractors.
- Provide training to the EU community to create awareness of ACM/PACM, including background information, recognition of damaged or deteriorated ACM/PACM, hazards possibly associated with exposure to friable materials, location(s) of ACM/PACM, housekeeping requirements for EU personnel, and response to fiber release episodes.
- Respond to emergency situation(s) and remediate any fiber release episodes or prevent them from occurring by utilizing a State licensed, EU approved asbestos abatement contractor to abate the identified area. An independent environmental consultant will be used to conduct the required air monitoring (background, area and clearance samples) as well as to ensure the contractor's compliance with abatement specification requirements.

This program has been developed by EU Environmental Health and Safety Office (EHSO) in accordance with standard industry guidelines (with the exception of respiratory protection which is addressed in a separate guideline). The following groups are subject to the scope of this manual and must comply with it:

- EU employees
- Students
- Contractors to Emory – Through designated project managers
- Visitors to Emory – Through EU employees and students

1.3 Policy

It is the policy of EU to provide a safe and healthy work environment for all employees. EU is committed to removing ACM/PACM from buildings and associated structures prior to demolition and renovation activities (including replacement/installation of carpet) that may impact ACM/PACM. EU is also committed to removing damaged or deteriorated ACM/PACM from areas where it is likely to be disturbed or to create a potential health risk.

ACM/PACM shall only be removed, repaired, replaced, or disturbed by EU employees who have completed 16 hours of asbestos O & M training. EU employees shall only perform short duration / small scale maintenance and/or repair activities. In any long duration/large scale maintenance, repair, removal and/or demolition activities, the ACM/PACM shall be removed and handled **only** by a State licensed, Emory-approved asbestos abatement contractor in accordance with all Federal, State and local regulations. An independent,

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qualified environmental consultant will also be used to ensure that the contractor adheres to the requirements and intent of the abatement specifications, conducts the required background, area, and final clearance air monitoring, as well as conducting inspections of the work area.

In addition, inspections of suspect ACM will be conducted by AHERA accredited inspectors to assess the condition of existing materials every three (3) years. When the condition and integrity is determined to be questionable, the material will be removed and replaced with non-ACM before the material becomes a health hazard.

1.4 Definitions

Accredited Inspectors. Must be AHERA-trained as a Building Inspector/Management Planner (EHSO or Certified Environmental Consultant)

Abatement (Removal). The asbestos-containing material is removed from EU buildings by Certified Environmental Contractor and disposed of by burial in a site specifically approved for asbestos

AHERA. Asbestos Hazard Emergency Response Act

Asbestos. Includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered

Asbestos-Containing Material (ACM). Any material containing more than 1% asbestos

Asbestos Manager. The person that exercises control over management and recordkeeping functions relating to EU in which activities covered by this program take place. This person is an EHSO employee

Certified Environmental Consultant. An environmental consultant certified by the Georgia Environmental Protection Division Land Protection Branch and the Asbestos program Manager of EU

Certified Environmental Contractor. An environmental contractor certified by the Georgia Environmental Protection Division Land Protection Branch and the Asbestos program Manager of EU

EHS. Employee Health Services

EHSO. Environmental, Health and Safety Office

Fiber Release Episode. Activity that causes a confirmed ACM to become friable and potentially contaminate property and personnel.

Friable. Any material that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure

Nonfriable. A material which, when dry, may not be crumbled, pulverized, or reduced to

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powder by hand pressure

Operations and Maintenance Plan (O&M). Specific procedures and practices developed for the interim control of asbestos containing materials in buildings until they are removed.

Presumed Asbestos-Containing Material (PACM). Any material that is assumed to be an ACM without performing proper sampling protocol.

1.5 Responsibilities

Deans, Directors, Department Heads or their designees, Supervisors, and Managers

The Deans, Directors, Department Heads or their designees, supervisors, and managers have primary responsibility to ensure that:

- Personnel who may come in contact with ACM/PACM during the performance of their duties have received the appropriate training.
- Personnel who have received the Annual Asbestos Awareness Training have the responsibility to recognize and report, in a timely manner, the following to the Asbestos Program Manager:
- Renovation or maintenance activity that may disturb ACM/PACM.
- Change in ACM/PACM condition
- Fiber Release Episode

Program Administrator

The Program Administrator for the Asbestos O&M Program is the Environmental Health & Safety Office's (EHSO's) Asbestos Manager and is responsible for development, implementation, and administration of the Asbestos O&M Program including:

- Conducting or contracting an environmental consultant to perform building surveys and maintaining records of the findings;
- Working with the EU community as a technical resource;
- Reviewing, updating, and evaluating the asbestos awareness training program;
- Developing or contracting an environmental consultant to develop job specific procedures (scope of work plans, specifications, etc) for conducting asbestos activities
- Ensuring the abatement actions are being conducted in accordance with project specifications, Federal, State, and Local Regulations;
- Maintaining and updating lists of environmental consultants and asbestos abatement contractors; and,
- Reviewing, updating, and evaluating overall effectiveness of the Asbestos O&M Program

Employee Health Services (EHS)

Employee Health Services (EHS) is responsible for conducting appropriate medical surveillance on personnel following a fiber release episode, and retaining records resulting from the medical surveillance shall be maintained for a minimum of thirty (30) years beyond the last date of employment by the employee.

Employees

Personnel that have received the Annual Asbestos Awareness Training have the responsibility to recognize and report, in a timely manner, the following to the Asbestos

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Program Manager:

1.6 Training Requirements

The Program Administrator is responsible for ensuring that Asbestos Awareness Training is provided to affected employees annually.

- EU employees who may come in contact with ACM/PACM while performing their assigned job duties (Class IV) will participate in an initial two hour awareness training program as required by 29 CFR 1910.1001 & 1926.1101. Annual refresher training will be provided thereafter. Campus Services staff (NetCom, Custodial, electrical, HVAC, carpentry and paint shops) are examples of personnel who should participate.
- The resulting employee training records shall be maintained for a minimum of thirty (30) years beyond the last date of employment by the employee. Copies of these records will be kept by the Department Head and EHSO.
- Training will include the following:
 - Background Information: General information on asbestos including types of asbestos used in buildings; general background on uses of asbestos; properties of airborne, how asbestos is identified by laboratories; uses of ACM on EU campus and related properties
 - Recognition of ACM/PACM Damage, Deterioration: Examples of damaged and deteriorating material will be shown; and updates of asbestos in the news worldwide and nationally and additional asbestos materials that may impact personnel.
 - Health Effects of Friable Asbestos Exposure: Updates of asbestos exposures worldwide and nationally; risk factors for asbestos related health effects; asbestos related diseases; smoking cessation programs
 - Locations of ACM/PACM in the Facility: identification of ACM/PACM in facilities by Housekeeping Requirements: Class IV training allowances; specialized cleaning procedures for VAT; and access area above ceiling tile that may have ACM/PACM debris on top
 - Proper Response to Fiber Release Episodes: What constitutes a fiber release, employee actions, and EU actions; and work practices for new construction building notifications, labeling of ACM/PACM, and abatement notifications

1.7 Recordkeeping Requirements

Records of medical evaluations as required by this program are retained and made available in EHS in accordance with 29 CFR 1910.1001.

1.8 Program Evaluation

The Program Administrator is responsible for evaluating the written Asbestos O&M Program to ensure continued compliance to the applicable standards.

As a part of the training evaluation, employees required to comply with the Asbestos Awareness Training are consulted to assess their views on program effectiveness and to identify any problems. Any problems identified during this assessment are corrected.

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2.0 Elements of the Asbestos O & M Program

2.1 Notification and Labeling

The EU community and occupants of those buildings owned and operated by EU shall have areas identified where asbestos is known or presumed to be present.

- ACM sampling information is obtained by conducting or contracting an environmental consultant to perform building surveys and maintaining records of the findings.
- The collection of suspect ACM is performed in general accordance with Federal, State, and local regulations.
- A copy of the building notice to be used for each structure is provided in Appendix A. This notice will be updated at least every three (3) years to reflect areas where abatement has occurred. The notification may be posted in common areas and outside mechanical rooms.
- Materials which have systems with ACM/PACM may be labeled to alert individuals. A copy of the label is presented in Appendix B.
- Any maintenance activity requested where suspect ACM(s) may be impacted or disturbed or prior to a renovation activity, the impacted material will be verified by the EHSO, General Health and Industrial Hygiene Program prior to requested work.
- If ACM is identified, it will be handled in accordance with Emory's policy and in compliance with Federal, State, and local regulations.
- Notification to GAEPD must be made at least ten (10) days prior to the start of all renovation activities, including activities not involving ACM/PACM on the Asbestos Abatement or Demolition Project Notification Form. Renovation activities involving ACM/PACM must be notified according to State Requirements.
- Prior to any abatement action, the building will be posted with a proper abatement notification form, a copy of which is contained in Appendix C. The notice shall contain information as to the time, dates, approximate location, and names of the consultant, the contractor, and points of contact at Emory.

3.0 References

- [29 Code of Federal Regulations \(CFR\) 1910.1001](#)
- [29 CFR 1926.1101](#)
- [National Emissions Standard for Hazardous Air Pollutants \(NESHAP\) 40 CFR Part 61, Subpart M](#)
- [Asbestos Hazard Emergency Response Act \(AHERA\) 40 CFR Part 763](#)
- [Georgia Department of Natural Resources \(GA DNR\) Rules for Air Quality Control, Chapter 391-3-1. Revised June 1998. Excerpted March 15, 1999](#)
- [Rules for Asbestos Removal and Encapsulation, Chapter 391-3-14. Revised June 1996](#)
- [Rules of Solid Waste Management, Chapter 391-3-4. Revised August 20, 1997. Excerpted March 15, 1999](#)

4.0 List of Associated Documents

Asbestos Fiber Release Flowchart