



**Duke University - Facilities Management Department
Environmental Safety and Health Program**

ASBESTOS SAFETY PROGRAM

Area: All FMD Organizations

Date Effective: 1 Sep 2011

Issue No.: 1

Revision: 1

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A. Purpose

1. To identify, define, and manage asbestos containing materials in the Duke University workplace. That is, to ensure FMD employees are able to recognize, identify, and understand the various types, uses, and hazards associated with asbestos and know when reporting is required.

B. Scope

1. This program applies to all FMD employees and contractors working for FMD. Refer to Reference 1 for specific details on the Duke Asbestos Abatement Program (information sheet), to Reference 2 for a synopsis about Managing Asbestos at Duke (self help guide), and to Reference 3 for detailed information about Asbestos Management at Duke.
2. Asbestos-containing materials have been installed in many of the buildings at Duke. The most common use is in thermal insulation on steam and water pipes, floor tiles, and acoustical plaster. As it stands now, if a building was built before 1981, there is a good chance that it was built with asbestos-containing materials.

C. Policy

1. FMD will take all reasonable measures to provide a safe workplace. All FMD operations must be performed in a manner, which will prevent any undesirable effects to FMD and/or Duke employees, assets, the local community, and the environment. The provisions of this program and all applicable standards will be followed to ensure the safety of personnel performing service or maintenance activities to equipment, machines, or systems. Failure to follow the requirements of the Asbestos Safety Program will be cause for disciplinary action.

D. Definitions

1. **Abatement.** Asbestos abatement includes all actions to control any hazards posed by the presence of asbestos-containing materials. These actions may include removal, enclosure, or encapsulation of the materials.
2. **Asbestos.** Includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, and actinolite asbestos, and any of these minerals that have been chemically treated and/or
3. **Asbestos-containing Materials (ACM).** Means any materials containing more than 1% asbestos.
4. **Class I** asbestos work means activities involving the removal of thermal systems insulation (TSI) and surfacing ACM and PACM.
5. **Class II** asbestos work means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.
6. **Class III** asbestos work means repair and maintenance operations, where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed.
7. **Class IV** asbestos work means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities.
8. **Competent Person.** Means one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them. In addition, for Class I and Class II work who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for supervisor, or its equivalent and, for Class III and Class IV work, who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92 (a)(2).
9. **Employee Exposure.** Exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.
10. **Friable asbestos material.** Means any material containing more than 1 percent asbestos as determined using Polarized Light Microscopy that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
11. **Nonfriable asbestos-containing material.** Means any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Revision History

Revision	Description	Effective Date
1	Updated based on changes to OESO asbestos policies.	9/1/2011



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12. **Presumed Asbestos-containing Material (PACM).** Means thermal system insulation and surfacing material found in buildings constructed no later than 1980.
13. **Regulated Asbestos-containing Material (RACM).** Means (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.
14. **Suspect Asbestos-containing Material.** Means those categories of materials known to have been manufactured with asbestos that are present in buildings constructed in 1990 or earlier.

E. Responsibilities

1. OESO

a. OESO be notified when:

- 1) Any routine maintenance job may result in the disturbance of know or suspect asbestos-containing material (ACM).
- 2) Any emergency has resulted in the disturbance of known or suspect ACM or will require ACM to be abated in order to manage the emergency.
- 3) Any renovation/demolition is planned.

b. For routine *small-scale* maintenance jobs, OESO will conduct an inspection. Small-scale projects are less than 1000 feet and exclude mechanical rooms.

c. For emergencies where known or suspect ACM has been disturbed, OESO will conduct an inspection and air-monitoring.

d. For renovations/demolition, OESO will

- 1) Review the scope of the project, and
- 2) Determine if prior inspections are available and convey that information to the project manager (PM).

e. For projects greater than 1000 feet, including mechanical rooms, the PM must hire an inspector prequalified by OESO.

f. Upon completion of any inspection performed by a contracted inspector, OESO must receive a copy of the inspection report provided to the PM/shop supervisor.

2. FMD

a. Request an asbestos inspection from OESO for projects less than 1000 feet and from an inspector prequalified by OESO for projects greater than 1000 feet by calling them in advance of construction or maintenance work being performed in any building where suspected asbestos-containing materials may be disturbed or any time there is a question about whether or not a building material contains asbestos.

b. When damaged or exposed non-friable asbestos (like resilient flooring tiles) is discovered or is suspected, employees will contact their supervisor or the FMD Safety Manager so that arrangements can be made to repair or remove the material as soon as possible.

c. When damaged or exposed friable asbestos (like thermal insulation) is discovered or is suspected, isolate the area and notify OESO immediately. The damaged asbestos will need to be removed, repaired, or encapsulated so that it is no longer a hazard.

d. When asbestos is found, the usual response is to abate it. There are circumstances where this may not be necessary. The PM/shop supervisor may seek the advice of OESO in determining how to manage asbestos discovered on their project site.

1) For all renovations/demolitions where an abatement is determined to be necessary, the PM/shop supervisor must hire an abatement firm prequalified by OESO.

2) For all abatement jobs requiring a NC HHCU permit, the PM/shop supervisor must hire an industrial hygiene consultant prequalified by OESO. OESO may require air-monitoring on any Class I work greater than 25 feet/10 feet squared, occurring adjacent to an employee-occupied area.

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- 3) For all NC HHCU permitted abatement job requiring a design, the PM/shop supervisor must hire an abatement project designer prequalified by OESO.
- e. Upon completion of abatement, OESO must receive a copy of the contractor's invoice and a copy of the NC Waste Shipment Record (WS) provided by the contractor.
- f. Upon completion of air-monitoring, OESO must receive a copy of the IH consultant's invoice and a copy of the air monitoring report.
- g. The responsible PM/supervisor must provide a report to OESO within three (3) working days of the work completion. The report should include who performed the removal, the location of work, a description of the reason necessitating the removal of ACM, date and time of the work, methods of removal, and the quantity of ACM removed.
- h. During normal work hours, employees may call the Occupational Hygiene & Safety (OHS) Division at 684-5996 or the main OESO number, 684-2794. For an after-hours event, the employees may call the Duke Police Department at 684-2444 and report a "hazardous materials incident." The Duke Police will contact the OESO After-Hours Responder who will initiate a response. OESO will respond to evaluate the situation and conduct air monitoring, if necessary. The maintenance departments have an abatement contractor for emergencies/ urgent needs.

Additionally, Reference 3 can be utilized as a further source for both definitions and responsibilities.

F. Training

- 1. Identified employees who will or have the potential to work in/around areas that contain asbestos and supervisors or project managers of those employees or contractors working with/near asbestos will be required to take the classroom training course titled "Asbestos Orientation" given monthly by OESO. Thereafter, employees will be required to take the asbestos refresher training course annually. That course is located online at the OESO website.
- 2. Documentation of this training will be collected and maintained by OESO.

G. References

- 1. "Asbestos Abatement at Duke: A Guide for Duke University Employees" located at: <http://www.safety.duke.edu/OHS/Documents/AsbestosInfosheet.pdf>
- 2. OESO Publication: "Managing Asbestos at Duke" located at: <http://www.safety.duke.edu/OHS/Documents/asbestos%20self-help%20guide.pdf>
- 3. Duke University Safety Manual "Asbestos Management" Policy located at: http://www.safety.duke.edu/SafetyManuals/University/II_7%20AsbestosManagement.pdf

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