

# ASBESTOS MANAGEMENT

## INTRODUCTION

### PURPOSE

This policy has been developed to ensure that hazardous building materials are identified and managed in a way to assure continued regulatory compliance, protect the safety and health of Duke University and Duke Health employees, students, patients and visitors, prevent contamination of campus facilities, and to achieve the goals and requirements of the University's Safety and Health Policy.

### DEFINITIONS:

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

*Asbestos-containing material (ACM)* means any material containing more than one percent asbestos.

*Category I non-friable ACM* means asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using Polarized Light Microscopy.

*Category II non-friable ACM* means any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined using Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

*Class I asbestos work* means activities involving the removal of thermal systems insulation (TSI) and surfacing ACM and PACM.

*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.

*Class III asbestos work* means repair and maintenance operations, where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed.

*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.

*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).

**Demolition** means the wrecking or taking out of any load-supporting structural member and any related razing, removing, or stripping of asbestos products.

**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.

**Intact** means that the ACM has not crumbled, been pulverized, or otherwise deteriorated so that the asbestos is no longer likely to be bound with its matrix.

**Presumed asbestos-containing material (PACM)** means thermal system insulation and surfacing material found in buildings constructed no later than 1980.

**Non-friable 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.

**Planned renovation operations** means a renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

**Regulated asbestos-containing material (RACM)** means (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable 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.

**Renovation** means the modifying of any existing structure, or portion thereof.

**Repair** means overhauling, rebuilding, reconstructing, or reconditioning of structures or substrates, including encapsulation or other repair of ACM or PACM attached to structures or substrates.

**Suspect asbestos-containing materials** mean those categories of materials known to have been manufactured with asbestos that are present in buildings constructed in 1990 or earlier.

**RESPONSIBILITIES:**

Facility Planning, Design, and Maintenance Groups include:

- Facilities Management Department
- Office of the University Architect
- Duke Health Engineering and Operations
- Duke Health Facility Planning, Design & Construction
- Arts and Sciences Facilities Office
- Residence Life and Housing Services Facilities, Planning, and Operations
- Engineering departments at Duke Regional and Duke Raleigh Hospitals

Each of the above groups shall:

- Provide timely notification to OESO of any activity that may disturb known or presumed asbestos-containing building materials.
- Manage the acquisition and coordination of abatement services from the list of prequalified contractors when removal or stabilization is required. This may include retaining an industrial hygiene firm to provide compliance oversight during planned abatements.
- Provide advance notification to persons in areas adjacent to abatement activity.

Employees performing any class of asbestos work shall:

- Complete periodic training as required.
- Maintain North Carolina accreditation if appropriate to their assigned tasks.
- Notify their supervisor or OESO when they discover damaged asbestos material (known or suspect).

OESO shall:

- Serve as the oversight point of contact for activities to manage hazards related to ACM in buildings. These activities include building surveys, abatement design, and coordinating regulatory visits.
- Assess the potential risk of any anticipated disturbance to asbestos materials and then shall develop and implement, with the coordination of all other affected parties, a protective action plan to prevent/minimize disturbance of asbestos materials by the activity.
- Maintain the institutional estimate of ACM and reporting updates periodically to Duke Financial Services.
- Coordinate the prequalification of asbestos abatement contractors and industrial hygiene firms.

## PROCEDURES

### GENERAL

Prior to conducting any activity that may disturb known or presumed asbestos-containing material (ACM), the responsible unit/person shall contact OESO (919-684-5996) to notify of them the planned activity and to request their review.

Only appropriately trained/accredited personnel will be allowed to inspect for, repair, or abate **friable or non-friable** asbestos-containing material on Duke property.

### PLANNED RENOVATION/DEMOLITION

This covers any/all building construction, renovation, addition, remodeling, repair, exterior work or infrastructure improvement projects that are planned, designed, managed or constructed through any of the planning/design/maintenance groups.

Upon notification of plans to conduct renovation or demolition in any building, OESO will review the plans and advise the Project Manager about any known or suspected ACM present in the planned area of work. In the event that there is insufficient information, OESO will advise the Project Manager that a survey will be required. Surveys may be done by OESO or by approved consultant.

Once all of the asbestos-containing materials have been identified, OESO will discuss management options with the Project Manager. Removal is recommended as the primary action; however in some circumstances asbestos-containing materials can be left in place. Any action plan shall be re-evaluated and further refined as the scope of the project changes.

Removal of ACM will be done by a prequalified abatement company. The assigned Project Manager shall manage the contract. OESO will assist the Project Manager in defining the scope of work, and in any other way necessary to ensure an effective, safe removal.

During abatement activities, inspections and air monitoring required by State and Federal Regulations will be conducted by an experienced industrial hygiene firm, with OESO oversight. Issues of safety or compliance will be brought to the attention of the Project Manager for resolution.

### MAINTENANCE ACTIVITIES

Maintenance activities shall be conducted in a manner that does not disturb existing ACM. When inadvertent damage does result, the event is to be treated as an emergency as described below.

When activities require that ACM be disturbed (e.g. to gain access to a building component), the supervisor may:

- Call OESO for guidance (919-684-5996).

- Mobilize an asbestos abatement contractor with whom there is an existing response contract.

OR

- If the supervisor is a Competent Person, as defined in this policy, he or she can direct and supervise the removal with Duke personnel. Any such personnel must be specifically trained and equipped to perform “Class III” asbestos work.

In all cases, the responsible supervisor must provide a report to OESO within 3 working days. 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.

### **EMERGENCY SITUATIONS**

Emergency situations are those that:

- Result from accidental damage to known or suspect ACM that causes an uncontrolled fiber release potential.
- Require immediate response by maintenance or other personnel to perform emergency maintenance or repair of failed or damaged mechanical or utility systems or facility components, during which ACM must be disturbed.

**In the first case, responding personnel are to immediately contact OESO at 919-684-2794 or through the Duke Police dispatcher (919-684-2444) after business hours.**

While awaiting the OESO response, personnel shall take immediate measures to protect themselves from exposure to and limit spread of contamination from known or suspect asbestos-containing materials. Action shall be taken to secure the emergency area against entry by unauthorized personnel and post warning signs.

OESO will perform and/or initiate response actions as appropriate. An attempt will be made to facilitate both the emergency maintenance/repair needs as well as the containment/cleanup of damaged asbestos-containing materials. However, priority will be given to addressing any situations that present hazardous exposures to airborne fibers.

In the second case, the supervisor or Project Manager will contact OESO for guidance.

### **REFERENCES**

National Emissions Standards for Hazardous Air Pollutants Asbestos, 40 CFR Part 61, Subpart M.

General Provisions, 40 CFR Part 61, Subpart A.

Guidance for Controlling Asbestos-Containing Materials in Buildings June 1985. (EPA # 560/5-85-024).

Asbestos-Containing Materials in Schools, 40 CFR Part 763, Subpart including appendices.

Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules, Title 29, Part 1910, Section 1001 and Part 1926, Section 1101 of the Code of Federal Regulations.

North Carolina Asbestos Hazard Management Program Rules as adopted by 10A NCAC 41C.0600.