

ASBESTOS MANAGEMENT PROGRAM
(OHS-0012)

For



Issued: February 1, 2008
Revised: 1st Issue

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**ASBESTOS MANAGEMENT PROGRAM
OHS-0012**

Dates
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1.0 PURPOSE

1.1 Until 1986, asbestos was used in making a wide variety of building materials used in building construction throughout the United States. Although less widely used after 1986, there is no existing ban on its importation, sale or use in building materials. As a result, asbestos-containing building materials have been widely used in the construction of many Kent State University (KSU) buildings. Existing federal, state and local laws and regulations require KSU management to identify and manage these materials in a manner that minimizes employee exposure to asbestos fibers. The purpose of this Asbestos Management Program is to ensure that affected employees can identify and manage potential exposures to asbestos fibers. It is not only the intent of the employer to fully comply with applicable environmental, health and safety standards and regulations, but also to improve the overall safety of KSU faculty, staff and students.

2.0 DOCUMENT CONTROL

2.1 Approvals: This procedure as well as all Environmental, Health and Safety (EH&S) procedures must be approved by the Manager, Occupational Health and Safety (MOHS).

Approved by: Robert L. Collins Date: 2/1/2008
Manager, Occupational Health and Safety

2.2 Responsibility:

2.2.1 The Administrator of this procedure is the Manager, Occupational Health and Safety (MOHS). This includes updating / revising the procedure, arranging for typing and providing revised copies to the Master Copy Holder for distribution. The Administrator will establish a review schedule for this procedure so as to ensure that this procedure contains only the most current information relevant to occupational exposures to and environmental releases of asbestos for employees, contractors, vendors and visitors.

2.2.2 The Master Copy Holder for this procedure is the Manager, Occupational Health and Safety (MOHS). He/she is responsible for ensuring that relevant elements of applicable quality control procedures governing policies, programs, procedures and checklists are being followed. This

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includes the preparation of revisions to this procedure, obtaining approvals, recording changes, distribution and compliance with other document(s).

3.0 DEFINITIONS

Approved training course: An asbestos hazard abatement specialist training course, an asbestos hazard evaluation specialist training course, an asbestos hazard abatement worker training course, asbestos hazard abatement project designer training course, asbestos hazard abatement air-monitoring technician training course, or any renewal training course meeting the requirements of Chapter 3710 of the Revised Code and approved by the Director ODH pursuant to rule 3701-34-07 of the Administrative Code.

Asbestos: A naturally occurring geological material including the asbestiform varieties of chrysotile or serpentine, Amosite or cummingtonite, grunerite, crocidolite or riebeckite, actinolite, tremolite, and anthophyllite.

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

Asbestos hazard abatement activity: Any activity involving the removal, renovation, enclosure, repair, or encapsulation of reasonably related friable asbestos-containing materials in an amount greater than fifty linear feet or fifty square feet. Asbestos hazard abatement activity also includes any such activity involving such asbestos-containing materials in an amount of fifty linear or fifty square feet or less if, when combined with any other reasonably related activity in terms of time and location of the activity, the total amount is in an amount greater than fifty linear or fifty square feet.

Asbestos hazard abatement air-monitoring technician: The person who is responsible for environmental monitoring or work space clearance air-sampling, including air monitoring performed to determine completion of response actions under the rules set forth in 40 C.F.R. 763 Subpart E, adopted by the United States environmental protection agency pursuant to the "Asbestos Hazard Emergency Response Act of 1986", Pub. L. 99-519, 100 Stat. 2970. An industrial hygienist or industrial hygienist in training certified by the American board of industrial hygiene is exempt from certification as an asbestos hazard abatement air-monitoring technician.

Asbestos hazard abatement contractor: A business entity or public entity that engages in or intends to engage in asbestos hazard abatement activities and that employs or supervises one or more asbestos hazard abatement specialists for asbestos hazard

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abatement activities. Asbestos hazard abatement contractor does not mean an employee of an asbestos hazard abatement contractor, a general contractor who subcontracts to an asbestos hazard abatement contractor an asbestos hazard abatement activity, or any individual who engages in asbestos hazard abatement activity in his own home. Asbestos hazard abatement contractor shall not mean a business entity which engages in asbestos hazard abatement activities solely at its own place of business provided that the business entity is required to and does comply with all applicable standards of the United States Environmental Protection Agency and the United States Occupational Safety and Health Administration, and provided further that persons employed by the business entity performing asbestos hazard abatement activity meet the requirements of this chapter.

Asbestos hazard abatement project: One or more asbestos hazard abatement activities that are conducted by one asbestos hazard abatement contractor and that are reasonably related to each other.

Asbestos hazard abatement project designer: The person responsible for the oversight of asbestos hazard abatement activities or determination of the work scope, work sequence, or performance standards for an asbestos hazard abatement activity, including preparation of specifications, plans, and contract documents.

Asbestos hazard abatement specialist: A person with responsibility for the oversight or supervision of asbestos hazard abatement activities including asbestos hazard abatement project managers, hazard abatement project supervisors and foremen, and employees of school districts or other governmental or public entities who coordinate or directly supervise or oversee asbestos hazard abatement activities performed by school district, governmental, or other public employees in school district, governmental, or other public buildings.

Asbestos hazard abatement worker: The person responsible in a non-supervisory capacity for the performance of an asbestos hazard abatement activity.

Asbestos hazard evaluation specialist: A person responsible for the identification, detection, and assessment of asbestos-containing materials, the determination of appropriate response actions, or the preparation of asbestos management plans for the purpose of protecting the public health from the hazards associated with exposure to asbestos, including the performance of air and bulk sampling. This category of specialists includes management planners, health professionals, industrial hygienists, private consultants, or other individuals involved in asbestos risk identification or assessment or regulatory activities.

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Assistant Secretary: The Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Authorized person: Any person authorized by the employer and required by work duties to be present in regulated spaces.

Building/facility owner: The legal entity, including a lessee, which exercises control over management and record keeping functions relating to a building and/or facility in which activities covered by this standard take place.

Business entity: A partnership, firm, association, corporation, sole proprietorship, or other business concern.

Category I nonfriable asbestos-containing material: Asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products containing more than one per cent asbestos as determined using the method specified in 40 CFR Part 763, Subpart E, Appendix E, Section 1, Polarized Light Microscopy (PLM).

Category II nonfriable asbestos-containing material: Any material, excluding Category I nonfriable asbestos-containing material, containing more than one percent asbestos as determined using the method specified in 40 CFR Part 763, Subpart E, Appendix E, Section 1, Polarized Light Microscopy (PLM), that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Certificate: A document:

- (1) Issued by the department to an individual affirming that the individual successfully has completed the training and other requirements set forth in Chapter 3701-34 of the Ohio Administrative Code to qualify as an asbestos hazard abatement specialist or an asbestos hazard evaluation specialist, an asbestos hazard abatement worker, an asbestos hazard abatement project designer, an asbestos hazard abatement air-monitoring technician, or an approved asbestos hazard abatement training course provider; or
- (2) Issued by a training institution in accordance with rule 3701-34-07 of the Ohio Administrative Code affirming that an individual successfully has completed the instruction required in all licensing or certification categories as provided in

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sections 3710.07 and 3710.10 of the Revised Code and the rules of Chapter 3701-34 of the Administrative Code.

Certified Industrial Hygienist (CIH): One certified in the practice of industrial hygiene by the American Board of Industrial Hygiene.

Clearance air-sampling: Air-sampling performed after the completion of any asbestos hazard abatement activity and prior to the reoccupation of the contained work space by the public and conducted for the purpose of protecting the public from the health hazards associated with exposure to friable asbestos-containing material.

Contained work space: Designated rooms, spaces, or other areas where asbestos abatement activities are being performed, including decontamination structures. The contained work space is separated from the uncontaminated environment by polyethylene sheeting or other materials used in conjunction with the existing floors, ceilings, and walls of the structure.

Damaged ACM: Friable ACM that is physically damaged or abraded to the extent that fibers may potentially be released.

Director: The Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

Director ODH: The director of the Ohio department of health or his or her authorized representative.

Employee: An individual who is employed by a business or public asbestos hazard abatement contractor.

Employee exposure: That exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.

Encapsulate: To coat, bind, or resurface walls, ceilings, pipes, or other structures to prevent friable asbestos from becoming airborne.

Enclosure: The permanent confinement of friable asbestos-containing materials with an airtight barrier in a space not used or designed as an air plenum.

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Environmental monitoring: Any air sampling other than clearance air sampling or employee exposure monitoring performed for the purpose of determining airborne asbestos concentrations.

Fiber: A particulate form of asbestos 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.

Friable asbestos-containing material: Any material containing more than one per cent asbestos by area, as determined using the method specified in 40 CFR Part 763, Subpart E, Appendix E, Section 1 Polarized Light Microscopy (PLM), that, when dry can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than ten percent as determined by a method other than point counting by Polarized Light Microscopy, verify the asbestos content by point counting using Polarized Light Microscopy.

High-efficiency particulate air (HEPA) filter: A filter capable of trapping and retaining at least 99.97 percent of 0.3 micrometer diameter mono-disperse particles.

Homogeneous area: An area of surfacing material or thermal system insulation that is uniform in color and texture.

Industrial hygienist: A professional qualified by education, training, and experience to anticipate, recognize, evaluate and develop controls for occupational health hazards.

License: A document issued by the Director ODH to a business entity or public entity affirming that the entity has met the requirements set forth in Chapter 3710 of the Revised Code and rule 3701-34-04 of the Administrative Code to engage in asbestos hazard abatement activities as an asbestos hazard abatement contractor.

Oversight: To directly observe an asbestos abatement project for the purpose of determining compliance with contractual, performance or regulatory standards affecting the safety of the asbestos abatement activity.

PACM: Presumed asbestos containing material.

Person: Any individual, business entity, governmental body, or other public or private entity.

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Presumed asbestos containing material: Thermal system insulation and surfacing material found in buildings constructed no later than 1980. The designation of a material as "PACM" may be rebutted pursuant to paragraph (j)(8) of this section.

Public entity: The state or any of its political subdivisions or any agency or instrumentality of either.

Regulated Asbestos Containing Material (RACM): Includes all of the following:

- Friable asbestos containing material;
- Category I nonfriable asbestos-containing material that has become friable;
- Category I nonfriable asbestos-containing material that will be or has been subjected to sanding, grinding, cutting, or abrading; or
- Category II non friable asbestos-containing material 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 chapter.

Regulated space: A space established by the employer to demarcate spaces where airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limits.

Removal: The stripping of friable asbestos containing materials from a wall, ceiling, pipe, boiler, duct, turbine, reactor, tank, furnace, load-supporting member, non load-supporting member, or the taking out of any friable asbestos-containing material from any site.

Surfacing ACM: Surfacing material which contains more than 1 percent asbestos.

Surfacing material: Material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).

Thermal System Insulation (TSI): ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

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Thermal System Insulation ACM: Thermal system insulation which contains more than 1 percent asbestos.

Visible emissions: Any emissions which are visually detectable without the aid of instruments and which contain particulate asbestos material.

4.0 OBJECTIVE

4.1 With implementation of this Asbestos Management Program, KSU establishes the following programs, policies and procedures:

- KSU shall perform initial and periodic surveys of all structures to identify existing ACM;
- KSU shall manage ACM so as to ensure that employee exposures to asbestos fibers are minimized;
- Where appropriate and necessary, KSU shall repair and/or abate ACM;
- KSU shall provide training for personnel potentially affected by work covered by this program; and
- KSU shall provide documentation as required for each element of this program.

5.0 SCOPE

5.1 This Asbestos Management Program applies to all KSU faculty, staff and students who may come into close proximity with ACM during their normal daily activities.

6.0 RESPONSIBILITIES

6.1 Manager, Occupational Health and Safety

6.1.1 Manager, Occupational Health and Safety shall develop and oversee implementation of a written Asbestos Management Program.

6.1.2 Manager, Occupational Health and Safety shall conduct routine evaluations of the workplace to ensure that the written Asbestos Management Program is being implemented and employees are acting in accordance with established procedures and exercising necessary

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protective measures.

6.1.2.1 Manager, Occupational Health and Safety shall conduct evaluations of the workplace to ensure that the current written program is effective.

6.1.2.2 Manager, Occupational Health and Safety shall regularly consult with employees to ascertain their views on the program's effectiveness and identify existing or potential problems.

6.1.3 Oversee the development and periodic review of ACM inventories. This is accomplished by completing and compiling initial and follow-up surveys of all KSU structures to identify and quantify building materials that are known or assumed to contain asbestos.

6.1.4 When notified of the existence of damaged ACM, the Manager, Occupational Health and Safety will ensure that the damaged ACM is repaired and/or abated in a timely manner using KSU personnel and/or contractors with the appropriate training, expertise and certifications / licenses.

6.2 FACILITY MANAGEMENT

6.2.1 Facility management shall establish a written Asbestos Management Program. This program shall be accessible to all employees.

6.2.2 Facility management shall provide employees with information and training on the purpose and function of the Asbestos Management Program and ensure the necessary knowledge and skills to ensure compliance to established procedures.

6.2.3 Facility management shall ensure that KSU faculty, staff and students notify them immediately whenever damaged ACM is discovered.

6.2.4 Facility management will assist the Manager, Occupational Health and Safety in the performance of initial and follow-up surveys of all KSU structures to identify and quantify building materials that are known or assumed to contain asbestos.

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6.2.5 Facility management will isolate spaces containing damaged ACM to prevent access by KSU faculty, staff and students. In addition, facility management will immediately notify the Manager, Occupational Health and Safety so that the damaged ACM can be repaired and/or abated.

6.3 FACILITY MAINTENANCE, ENGINEERING AND ARCHITECTURAL PERSONNEL

6.3.1 Facility maintenance, engineering and architectural personnel will notify the Manager, Occupational Health and Safety when work is to be done that may result in damage to building materials that may contain asbestos. This notification must be made prior to the performance of any work that might result in damage to building materials that may contain asbestos. Asbestos abatement activities may have to be completed before the project can proceed.

6.3.2 The Ohio Environmental Protection Agency (Ohio EPA) must be notified no less than 10 business days prior to the start of work for projects where the following amounts of RACM are to be stripped, removed, dislodged, cut, drilled, or similarly disturbed.

- More than 260 linear feet of TSI on pipes; or
- More than 160 square feet of surfacing material on other facility components.

In order to minimize project delays, facility maintenance, engineering and architectural personnel must ensure that the Manager, Occupational Health and Safety has sufficient notice of projects like this.

6.3.3 The Manager, Occupational Health and Safety will coordinate the repair and/or abatement of damaged ACM, with the cooperation and assistance of facility maintenance, engineering and architectural personnel. Facility maintenance, engineering and architectural personnel are encouraged to remain actively involved in this portion of their project by helping in the selection and oversight of outside contractors. The wishes of facility maintenance, engineering and architectural personnel will be honored as long as the contractor requested continues to perform work effectively and satisfies all applicable federal, state and local laws and regulations.

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6.4 FACILITY PERSONNEL

6.4.1 Facility personnel are expected to fully comply with applicable provisions of this Asbestos Management Program. This means that facility personnel will:

- Avoid stripping, removing, dislodging, cutting, drilling, or similarly disturbing building materials that may contain asbestos;
- Ensure that their supervisor is informed whenever requested work may result in stripping, removing, dislodging, cutting, drilling, or similarly disturbing building materials that may contain asbestos;
- Leave the space and immediately report damaged building materials that may contain asbestos;
- Stay out of spaces that have been isolated because there is damaged building materials present that may contain asbestos or abatement activities are planned or underway;
- Do not enter any space where damaged building materials that may contain asbestos were present or abatement activities were being undertaken until all warning signs, enclosures and barricades have been removed indicating that the space is safe to enter; and
- Attend mandatory Asbestos Awareness training.

7.0 METHODS OF COMPLIANCE

7.1 General.

7.1.1 KSU shall perform initial and follow-up surveys to identify building materials that either are known to contain or are assumed to contain asbestos in concentrations greater than 1% by weight (i.e., ACM).

7.1.2 Initial and follow-up surveys will be used to create and maintain a database identifying and quantifying all of the ACM present in KSU buildings. Included in this database will be estimates for abatement of

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each identified and quantified ACM.

7.1.3 KSU will require faculty, staff and students to:

- Notify their supervisor or teacher when building materials that may contain asbestos are found to be damaged;
- Isolate spaces containing damaged building materials that may contain asbestos;
- Stay out of spaces containing damaged building materials that may contain asbestos;
- Stay out of spaces where damaged building materials that may contain asbestos are being cleaned up, repaired and/or abated. These spaces will be clearly indicated by signs, warning tape, plastic enclosures or other temporary barriers; and
- Attend periodic Asbestos Awareness training sessions.

7.1.4 KSU will ensure that facility maintenance, engineering and architectural personnel notify the Manager, Occupational Health and Safety prior to the start of any work involving the stripping, removing, dislodging, cutting, drilling, or similarly disturbing building materials that may contain asbestos. This notification must take place no less than 10 business days prior to performing any work where the following amounts of RACM are to be stripped, removed, dislodged, cut, drilled, or similarly disturbed.

- More than 260 linear feet of TSI on pipes; or
- More than 160 square feet of surfacing material on other facility components.

Asbestos abatement activities may have to be completed before the project can proceed.

7.2 Employee Asbestos Management Requirements.

7.2.1 Under this Asbestos Management Program, the employee's first responsibility is to know what building materials may contain asbestos in

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concentrations greater than 1% by weight (i.e., ACM). It would be impractical to label or place signs on all such materials. Therefore, employees must assume that all building materials contain asbestos unless otherwise indicated. One of the main purposes of Asbestos Awareness training is to make employees better able to identify ACM in their workplace.

7.2.2 Once employees know where the ACM is, they can:

- Avoid contact that may damage it;
- Observe and immediately report damaged ACM to their immediate supervisor;
- Immediately leave and avoid spaces where damaged ACM is present;
- Stay out of spaces where ACM is being repaired and/or abated (indicated by signs, warning tape, plastic enclosures or other temporary barriers); and
- Know when damaged ACM has been repaired and/or abated (signs, warning tape, plastic enclosures and/or other temporary barriers have been removed).

7.2.3 Employees must attend initial and periodic asbestos awareness training sessions.

8.0 SYSTEM MAINTENANCE

8.1 There are no system maintenance requirements for this program.

9.0 TRAINING

9.1 All KSU employees who work in spaces that may contain ACM must attend both initial and periodic Asbestos Awareness training sessions.

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10.0 RECORDKEEPING

- 10.1** KSU will prepare and maintain an asbestos database that identifies and quantifies building materials known or assumed to contain asbestos in concentrations greater than 1% by weight (i.e., ACM). This database will include an estimate of abatement cost for each ACM identified.
- 10.2** KSU will perform or cause to have performed surveys of building materials in preparation for demolition / renovation activities. Written reports and/or sampling documentation will be prepared for each survey completed.
- 10.3** KSU will collect / compile other records provided by asbestos abatement contractors including but not limited to waste manifests.
- 10.4** Records of all surveys, repairs and abatement activities will be kept on file and available for auditors / inspectors for no less than five (5) years.

11.0 REFERENCES

- 11.1** OSHA Asbestos standard, 29 CFR Part 1910.1001.