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**University of Northern Iowa, Physical Plant**  
Asbestos Management Plan

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Introduction

Asbestos may be present in many building materials on campus. Employees receiving Asbestos Awareness Training are not permitted to work with asbestos, but may work in areas where asbestos containing materials (ACM) are present.

This training is intended to promote awareness of where ACM might be present, the consequences (to both self and building occupants) of disturbing ACM, and proper work practices to minimize exposure when working near it.

Asbestos training is mandatory for all employees working in Price Laboratory School. This includes maintenance workers, custodians, and any other employees who work in and around areas with ACM.
Terms and Definitions

**Abatement:** any operation that is designed to permanently remove asbestos-containing materials.

**Asbestos Hazard Emergency Response Act (AHERA):** this act became law in 1987 and specified a plan by which K-12 schools would manage asbestos.

**Asbestos-Containing Material (ACM):** any material that contains more than 1% of asbestos.

**Asbestos related work:** any work that involves ACM and may result in the release of any quantity of asbestos fibers into the air.
**Terms and Definitions**

**Disturbance**: contact with any material that contains ACM or PACM that causes release of fibers.

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

**Intact**: ACM that has not crumbled, been pulverized, or otherwise deteriorated.

**Presumed Asbestos-Containing Material (PACM)**: materials that may contain asbestos but have not yet been tested.
...Terms and Definitions

**Removal:** all operations where ACM and/or PACM is taken out or stripped from structures or substrates, including demolition operations.

**Renovation:** any operations that involves altering a facility or one or more facility components in any way.
Common Asbestos Acronyms

AHERA - Asbestos Hazard Emergency Response Act
ASHARA - Asbestos School Hazard Abatement Reauthorization Act
CAA - Clean Air Act
CFR - Code of Federal Regulations
FR - Federal Register
NESHAP’s - National Emission Standards for Hazardous Air Pollutants
NDAAC - National Directory of AHERA Accredited Courses
PLM - Polarized Light Microscopy
TEM - Transmission Electron Microscopy
TSCA - Toxic Substance Control Act
Asbestos is the name given to a group of naturally occurring minerals used in certain products, such as building materials and vehicle brakes, to resist heat and corrosion.

Asbestos includes:
- chrysotile
- amosite
- crocidolite
- tremolite asbestos
- anthophyllite asbestos,
- actinolite asbestos
- and any of these materials that have been chemically treated and/or altered.
Asbestos is made up of microscopic bundles of fibers that may become airborne when disturbed. These fibers get into the air and may become inhaled into the lungs, where they may cause significant health problems. Researchers still have not determined a “safe level” of exposure but the greater and the longer the exposure, the greater the risk of contracting an asbestos related disease.

Some of these health problems include:
- Asbestosis
- Mesothelioma
- Lung Cancer

CAUTION
Asbestos Containing Material (ACM)
Cancer and lung disease hazard
Do not disturb without proper training and equipment
Asbestosis: a lung disease first found in naval shipyard workers. Asbestos fibers are inhaled, they become trapped in the lung tissue. The body tries to dissolve the fibers by producing an acid. This acid, due to the chemical resistance of the fiber, does little to damage the fiber, but may scar the surrounding tissue. Eventually, this scarring may become so severe that the lungs cannot function. The latency period is often 25 - 40 years.

Mesothelioma: a cancer of the pleura (the outer lining of the lung and chest cavity) and/or the peritoneum (the lining of the abdominal wall). This form of cancer is peculiar because the only known cause is from asbestos exposure. The latency period for mesothelioma is often 15-30 years.

* Latency period - the time it takes for the disease to develop
Lung Cancer: Asbestos is a contributing factor of lung cancer. The effects of lung cancer are greatly increased by cigarette smoking (by about 50%). Cancer of the gastrointestinal tract can also be caused by asbestos. The *latency period* for cancer is often 15-30 years.

*Latency period* - the time it takes for the disease to develop
Asbestos is not always an immediate hazard. In fact, if asbestos can be maintained in good condition, it is recommended that it be left alone and periodic surveillance performed to monitor its condition. It is only when asbestos containing materials (ACM) are disturbed or the materials become damaged that it becomes a hazard. When the materials become damaged, the fibers separate and may then become airborne. In the asbestos industry, the term ‘friable’ is used to describe asbestos that can be reduced to dust by hand pressure. ‘Non-friable’ means asbestos that is too hard to be reduced to dust by hand. Non-friable materials, such as transit siding and floor tiles are not regulated provided it does not become friable. Machine grinding, sanding and dry-buffing are ways of causing non-friable materials to become friable.
The University of Northern Iowa
Physical Plant
Asbestos Management Plan
Environmental Health and Safety Office Duties

1. Oversee development and implementation of the Physical Plant Asbestos Management Plan.

2. Review and evaluate the impact of records and regulatory changes on the Physical Plant.

3. Oversee and maintain records of asbestos awareness training given to employees.

4. Participate in determining the need for baseline air monitoring in occupied buildings.

5. Maintain a central location for asbestos management documentation.
Asbestos Coordinator Duties

The Asbestos Coordinator will see that the PACM will be tested or removed and disposed in compliance with applicable governing regulatory agency regulations/guidelines pertaining to ACM. The Asbestos Coordinator will use trained asbestos contractors with the proper license and permits to remove, store and dispose of ACM. The approved removal contractor will hire the proper testing lab as required for clearance.

Fire Safety and Asbestos Program Coordinator

Contact
Jason Kayser
319.273.2004
Jason.kayser@uni.edu
Manager and Supervisor Duties

All Physical Plant personnel who manage construction or maintenance projects will report PACM to the Asbestos Coordinator. The manager/supervisor will inform the Asbestos Coordinator by use of the Asbestos Removal/Insulation form.
Certified Asbestos Consultants:
- A certified asbestos consultant will be called upon by the Asbestos Coordinator when required. The certified consultant will supervise the asbestos contractor when required by forming a scope of work, supervising containment set up, testing and daily sight visits. All results and reports will be sent to the Asbestos Coordinator.

General Contractor Involved in Asbestos-Related work:
- Any contractor or UNI employee that discovers any PACM on a project controlled by the Physical Plant will immediately cease all work in affected area and contact their supervisor who then will inform the Asbestos Coordinator who will make all arrangements to address same.
Asbestos Abatement Contractor:

- Any contractor and their employees used for asbestos-related work shall be licensed and trained in the proper and safe removal of asbestos and will show their license to the Asbestos Coordinator before starting the project.

- Asbestos contractor will inform the Asbestos Coordinator before beginning a project so that the proper parties can be notified of the project and at the conclusion of project to make a final inspection of the area.

- All labs used for UNI asbestos work will be licensed for asbestos-related testing.
Prohibited Asbestos-Related Work

No employee of the Physical Plant shall engage in any of the following activities involving PACM.

1. Sweeping up of any PACM
2. Removing of any PACM
3. Taking of samples of PACM
4. Grinding of any PACM
5. Power wire brushing of any PACM
6. Disturbing any PACM
Procedure for Addressing PACM on Campus

When suspected asbestos-containing material (PACM) is found and must be disturbed to effect needed repairs:

- Employee will request that his manager/supervisor have the material tested. Employee will provide the following information to his supervisor:

  Location
  Amount that needs to be addressed
  Type of ACM it is (pipe, floor tile, plaster, sprayed)
  Relative urgency of access
...Procedure for Addressing PACM on Campus

- Unit manager/supervisor will fill out Asbestos Removal/Insulation request sheet.

Requisition will contain the following data:

- Contact Person
- Building
- Location of ACM
- Estimated amount of ACM
- Type of ACM
- Is it an emergency
...Procedure for Addressing PACM on Campus

- This form will then be turned into the Asbestos Coordinator. At this time it will be decided if there is a need to have a test sample taken or if it is to be handled as ACM. This will be based on location or quantity. The Asbestos Coordinator will call an approved contractor or send request for quotes depending on extent of the project.

If a walk through is required the Asbestos Coordinator will show the areas that need to be inspected. The original contact person may be asked to accompany the Asbestos Coordinator on the walk through.
The Asbestos Coordinator will send out the request for quotes and the Requisition for PO#.

- Once the project date has arrived the Unit Manager/Supervisor will

  Coordinate the shutting off of all affected utilities for the contractor to do his job safely. (proper Lock Out/Tag Out)

  Notification of effected parties (Asbestos Coordinator will assist with this).
...Procedure for Addressing PACM on Campus

- After contractor has received final clearance to release the area, all systems will be returned to normal
Procedures for Accidental Release of Asbestos

The following procedures must be followed if asbestos is accidentally released:

Immediately isolate the area by closing doors and/or erecting temporary barriers to restrict air movement as well as access to the site.

Notify your supervisor and Asbestos Coordinator.

If asbestos fibers are suspected to have entered the Heating, Ventilation and Air Conditioning (HVAC) system (or may do so), the HVAC system must be shut down and sealed off.
Procedures for Accidental
Release of Asbestos

Through an asbestos contractor, employ thorough cleanup procedures to properly control the ACM, by using wet methods, HEPA vacuums, respiratory protection, etc.

Asbestos Coordinator will inspect the area before clearance is given.
Procedures for Accidental contact with PACM

The following procedures must be followed if PACM is accidentally contacted:

**Minor Contact:**
(i.e. brushing up against PACM with small amount of fiber sticking to clothes)

**DO NOT** brush off or blow off PACM.

Remove PACM with **wet** rag or **wet** paper towel.

Wrap **wet** rag or **wet** paper towel containing PACM in another layer of **wet** rag or **wet** paper towel.

Dispose of rags and/or paper towels in sealed plastic bag.
Procedures for Accidental contact with PACM

Major Contact:

Take measures to terminate contact with PACM.

Notify supervisor and Asbestos Coordinator and O&M management.

Initiate testing procedure for PACM material contacted.

Change clothes and shower

Clothing may be bagged and remain sealed until testing procedure determines if ACM is present.
University of Northern Iowa
Employee training options...

**Computer Interactive Training:** Asbestos Awareness approximately 2 hour basic training available on computers in the Environmental Health and Safety Office. Call 273-7269 for information or to schedule a session.

**Video:** “Asbestos Awareness” available to check out in the Environmental Health and Safety Office. Call 273-7269 for information or to request the video.

**Group Session:** Annually scheduled for Building Services custodians and Physical Plant maintenance staff. For more information contact the Environmental Health and Safety office at 273-7269.

**Special Session:** Contact the Environmental Health and Safety office at 273-7269.
For more information:

Contact the Environmental Health and Safety Office:
319.273.7269

OR

Visit:
http://www.vpaf.uni.edu/ehso/index.shtml
Resources:

Asbestos Headquarters

OSHA

University of Kentucky, Environmental Health & Safety

Environmental Protection Agency