



# **Physical Plant**

# **Asbestos Management**

# **Plan**

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## **I. Introduction**

The Physical Plant Asbestos Management Plan is established for the protection of all Physical Plant employees. The plan addresses any operation, including maintenance activities, involving potential or actual disturbance of materials that contain asbestos.

The Physical Plant Asbestos Management Plan complies with State/Federal regulations (IOSH, OSHA, AHERA and EPA) and is an effort to streamline these compliance documents into one logical and efficient plan. All Physical Plant contractors / subcontractors who conduct asbestos-related work located on university property must adhere to all requirements set forth in the Physical Plant Asbestos Management Plan.

## **2. Purpose**

The University of Northern Iowa Physical Plant has established the Physical Plant Asbestos Management Plan to address a variety of issues regarding asbestos-related work. The goals of the Physical Plant Asbestos Management Plan are to:

1. Minimize exposure of employees, faculty, students and visitors to airborne asbestos.
2. Comply with all pertinent, regulatory, and University requirements related to asbestos-containing materials (ACM). The Physical Plant recognizes and will comply with all applicable Federal, State, and local governing regulatory agency regulations/guidelines pertaining to asbestos-containing materials.
3. Establish procedures for the identification, evaluation, control, maintenance, disturbance, abatement, and waste storage/disposal of asbestos-containing material (ACM) at the University of Northern Iowa.
4. Remove, enclose, encapsulate, or repair hazardous asbestos-containing material as required by government or University regulations and as needed to protect human health.
5. Provide asbestos awareness training.

6. Appoint an Asbestos Coordinator to evaluate potential asbestos-related hazards, coordinate the sampling of suspect materials, and oversee asbestos-abatement projects.
7. Eliminate the installation of new asbestos-containing material whenever possible.
8. Ensure that Physical Plant asbestos-related contracted/subcontracted work is properly planned, reviewed, and conducted.

### **3. Operations and Maintenance asbestos related activities**

The principal objective of an operations and maintenance asbestos program is to minimize potential exposure of airborne asbestos fibers to all building occupants and maintenance personnel. Individuals involved in an operations and maintenance program are employees who are in casual and non-intentional contact with asbestos because of the nature of their work or mere presence in a building.

To accomplish this objective, an operations and maintenance program shall include work practices to:

1. Remove Presumed Asbestos Containing Material (PACM) where needed
2. Prevent further release of asbestos fibers.
3. Monitor the condition of ACM and PACM.

This program includes the following components:

1. Training of affected employees in asbestos awareness for ACM and PACM..
2. Regular documentation ACM and PACM's.
3. A permit system to control activities that might disturb ACM and PACM.
4. Procedures for accidental release of asbestos.
5. Procedures for keeping records that pertain to asbestos activities.

#### **4. Applicability**

The Physical Plant Asbestos Management Plan is applicable to all Physical Plant employees and to all work conducted under the direction of the Physical Plant.

The University of Northern Iowa, Malcolm Price Laboratory School is a State of Iowa K-12 facility that is maintained and operated by the University of Northern Iowa. The Malcolm Price Laboratory School's Asbestos Management Plan is a site specific plan to address maintenance of known asbestos containing material and addresses the manner in which to manage a potential accidental release of asbestos fiber. Copies of the plan are kept in the office of the Physical Plant Asbestos Coordinator and the Physical Plant Safety Office.

#### **5. Regulatory Reference**

The University of Northern Iowa Physical Plant adheres to and enforces this policy and all applicable Federal, State, and local governing regulatory agency laws/guidelines pertaining to asbestos-containing materials and asbestos-related work, including:

1. Iowa Department of Labor, Occupational Safety & Health Administration (IOSH)
  - 29 CFR Part 1910.1001 (Asbestos Regulations)
  - 29 CFR Part 1910.134 (Respirator Regulations)
  - 29 CFR Part 1926.1101 (Construction Asbestos Regulations)
2. Environmental Protection Agency (EPA) Guidance Documents
  - Asbestos-Containing Materials in School Buildings, parts 1 and 2
  - Guidance for Controlling Asbestos-Containing Materials in Buildings
  - Managing Asbestos in Place - A Building Owner's Guide for Operations and Maintenance Programs for Asbestos-Containing Materials
3. Asbestos Hazard Emergency Response Act (AHERA)

## 6. Definitions

1. Abatement: Any operation that is designed to permanently remove asbestos-containing materials.
2. Asbestos: Includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos actinolite asbestos, and any of these minerals that have been chemically treated and/or altered.
3. Asbestos Hazard Emergency Response Act (AHERA): This act became law in 1987 and specified a plan by which K-12 schools would manage asbestos.
4. Asbestos-Containing Material (ACM): Any material that contains more than 1% of asbestos.
5. Asbestos-Related Work: Any work that involves asbestos-containing material and may result in the release of any quantity of asbestos fibers into the air.
6. Certified Asbestos Consultant: Any person who contracts to provide professional health and safety services that relate to asbestos-containing construction material. The activities of an asbestos consultant include building inspection, abatement project design, contract administration, sample collection, preparation of asbestos management plans, clearance monitoring, and supervision of site surveillance technicians.
7. Disturbance: Contact with any material that contains ACM or PACM that causes release of fibers. This term includes activities that disrupt the matrix of ACM or PACM or generate visible debris. Disturbance includes cutting away small amounts of ACM and PACM.
8. Fiber: A particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3-to-1.
9. Intact: ACM that has not crumbled, been pulverized, or otherwise deteriorated so that it is no longer likely to be bound with its matrix.
10. Presumed Asbestos-Containing Material (PACM): Materials that may contain asbestos but have not yet been tested.

11. Removal: All operations where ACM and/or PACM is taken out or stripped from structures or substrates, including demolition operations.
12. Renovation: Any operation that involves altering a facility or one or more facility components in any way.

## **7. UNI 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 regulatory changes on the Physical Plant.
3. Oversee and maintain records of asbestos awareness training given to Physical Plant employees.
4. Participate in determining the need for baseline air monitoring in occupied buildings.
5. Maintain a central location for all asbestos management documentation.

## **8. Record Keeping**

All building asbestos management documents are located in the University of Northern Iowa Environmental Health and Safety Office. Some of the documents at the location include:

1. Air-sampling data from abatement and O&M projects located in the UNI Safety Office.
2. Laboratory results from area/final clearance sampling, and personnel monitoring located in the Asbestos Coordinator's office.
3. Results from bulk sampling analysis located in the Asbestos Coordinator's office.
4. Medical Surveillance Records (all medical surveillance records of Physical Plant employee's will be located in the Human Resource Office.).
5. Proof of medical surveillance and successful completion of an asbestos physical located in the UNI Safety Office.

## **9. 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 licensed asbestos contractors (Advanced Tech., Iowa Illinois, etc.) with the proper license & permits to remove, store and dispose of ACM. The approved removal contractor will hire the proper testing lab as required for clearance.

## **10. Manager & 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 (Appendix A)

## **11. 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.

## **12. General Contractors Involved in Asbestos-Related work**

Any contractor or UNI employee that discovers any PACM on a project controlled by the Physical Plant will through their supervisor, inform the Asbestos Coordinator who will make all arrangements to address same.

## **13. Asbestos Abatement Contractors**

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 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 area.

All labs used for UNI asbestos work will be licensed for asbestos related testing.

#### **14. Storage/Disposal/Transportation of Waste Material**

All ACM will be transported, stored and disposed of by the removing contractor.

#### **15. 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 any PACM
3. Taking of samples of PACM
4. Grinding of any PACM
5. Power wire brushing of any PACM
6. Disturbing any PACM

#### **16. Periodic Reassessment of ACM**

Conditions, accessibility, use factors, etc. are likely to change over time. Therefore, ACM's require periodic reassessment to determine if changes have occurred that warrant reassessment to a different hazard class.

#### **17. 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.

Unit manager/supervisor will fill out Asbestos Removal/ Insulation request sheet (See Appendix A)

Requisition will contain the following data

- A. Contact person ( person requesting)
- B. Building
- C. Location of ACM
- D. Estimated amount of ACM
- E. Type of ACM
- F. If containment is required or glove bag
- G. Is it an emergency

This form will 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 the contract labor asbestos contractor or send request for quotes if large project and set up the schedule for the project.

- A. 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 assist.
- B. If the project is large enough to require containment, the Asbestos Coordinator will show prospective asbestos removal contractors the area. The original contact person may be asked to assist.
- C. 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

- A. Coordinate the shutting off of all affected utilities for the contractor to do his job safely (proper Lock Out/Tag Out)
- B. Notification of effected parties (Asbestos Coordinator will assist with this)

After contractor has received final clearance to release the area, all systems will be returned to normal.

## 18. Procedures for Accidental Release of Asbestos

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

1. Immediately isolate the area by closing doors and/or erecting temporary barriers to restrict air movement as well as access to the site.
2. Notify Asbestos Coordinator.
3. 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.
4. Through an asbestos contractor, employ thorough cleanup procedures to properly control the ACM, by using wet methods, HEPA vacuums, respiratory protection, etc.
5. Asbestos Coordinator will inspect the area before clearance is given. Collect at least one air sample for a final clearance level of no more than 70 structures per square millimeter (strm/mm<sup>2</sup>) using the Transmission Electron Microscope (TEM) method or not more than .01 fibers per cubic centimeter (f/cc) if using the Phase Contract Microscopy (PCM) method.

## 19. 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)

1. **DO NOT** brush off or blow off PACM.
2. Remove PACM with **wet** rag or **wet** paper towel.
3. Wrap **wet** rag or **wet** paper towel containing PACM in another layer of **wet** rag or **wet** paper towel.
4. Dispose of rags and or paper towels in sealed plastic bag.

## MAJOR CONTACT

1. Take measures to terminate contact with PACM.
2. Notify Asbestos Coordinator and O&M management.
3. Initiate testing procedure for PACM material contacted.
4. Change clothes and shower.
5. Clothing may be bagged and remain sealed until testing procedure determines if ACM is present.

# Appendix A

## asbestos removal

CONTACT PERSON \_\_\_\_\_ MAINT GROUP \_\_\_\_\_  
 ROOM # \_\_\_\_\_ ACCOUNT CHARGED \_\_\_\_\_  
 REQUIRED COMPLETION DATE \_\_\_\_\_ EMERGENCY YES NO \_\_\_\_\_  
 TYPE OF REMOVAL PIPE \_\_\_\_\_ FL TILE \_\_\_\_\_ PLASTER \_\_\_\_\_ SPRAYED \_\_\_\_\_  
 AMOUNT OF ASBESTOS TO REMOVE \_\_\_\_\_  
 GLOVE BAG \_\_\_\_\_ CONTAINMENT \_\_\_\_\_ IF YES IS WATER AVAILABLE \_\_\_\_\_  
 COMMENTS \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ EST. DATE FOR START \_\_\_\_\_

## INSULATION

CONTACT PERSON \_\_\_\_\_ MAINT GROUP \_\_\_\_\_  
 ROOM # \_\_\_\_\_ ACCOUNT CHARGED \_\_\_\_\_  
 REQUIRED COMPLETION DATE \_\_\_\_\_ EMERGENCY YES NO \_\_\_\_\_  
 BEST TIME TO WORK \_\_\_\_\_  

PIPE	STEAM CONDENSATE WATER CHILLED WATER RAIN LEADER OTHER	PIPE SIZE	AMOUNT IN FEET
		DUCT	TANK OR CONV.

MATERIAL FIBER GLASS JACKET PVC  
 ARMOFLEX CLOTH  
 MINERAL WOOL ALUMINUM  
 CAL. SIL. STAINLESS  
 PAPER

COMMENTS \_\_\_\_\_

CONTRACTOR \_\_\_\_\_ EST. START DATE \_\_\_\_\_

COMPLETION DATE \_\_\_\_\_ MANAGER \_\_\_\_\_