A. POLICY

B. SCOPE AND APPLICATION
This plan has been developed to inform the Alvernia University community of the Asbestos Operations & Management (O&M) Program for University buildings. The purpose of an O&M program is to reduce or eliminate the risk of employee exposure to asbestos-containing materials.

C. SUMMARY
Asbestos is a naturally occurring group of fibrous minerals. It was added to many building materials because it is heat and chemical resistant, strong, and not easily degraded. Asbestos was widely used in building materials prior to 1980. Asbestos containing materials can also be found in building materials used after 1980, although it is rare. Asbestos is primarily found in insulation around pipes, ducts, and tanks. Other asbestos containing materials are sprayed-on fireproofing, troweled-on plaster, fire doors, wallboard, fume hood linings, linoleum, laboratory countertops, and floor tiles. Asbestos becomes a concern when fibers become airborne. Materials that can be crumbled or reduced to powder by hand pressure are considered to be “friable”, meaning they have the potential to become airborne. Intact, sealed, and undisturbed materials do not present an exposure risk. When materials are exposed or disturbed, asbestos fibers can become airborne, and exposure may result from fibers being inhaled. Studies have shown that some individuals exposed to asbestos fibers have developed lung cancer, asbestosis (scarring of the lungs), and mesothelioma (cancer of the lining of the lung or abdomen). These diseases have generally been observed after long-term exposures from activities that directly disturb asbestos-containing materials (ACM). Typically, the diseases do not develop until 10 to 40 years after exposure.

It is not necessary to remove all asbestos-containing materials from a building to assure a safe workplace. The Environmental Protection Agency (EPA) recommends a practical approach that protects the health of building occupants. This approach includes locating and identifying asbestos materials in buildings, and proper management of the material. The following summarizes the five major facts that EPA has presented in congressional testimony.

1. Although asbestos is hazardous, human risk of asbestos disease depends on both the amount and duration of exposure.
2. Based on available data from across the nation, prevailing asbestos levels in buildings appear to be very low. Accordingly, the health risk faced by building occupants also appears to be very low.
3. Removal is often not a building owner's best course of action to reduce asbestos exposure. In fact, an improper removal can create a dangerous situation where one did not previously exist.
4. EPA only requires asbestos removal in order to prevent significant public exposure to asbestos, such as during building renovation or demolition.
5. EPA does recommend in-place management whenever asbestos is discovered. Instead of removal, a conscientious in-place management program will usually control fiber releases, particularly when the materials are not significantly damaged and are not likely to be disturbed.
D. DEFINITIONS

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-Containing Material (ACM) – is a material that has been tested and determined to contain more than 1% asbestos, or is assumed to be in the absence of testing. Also refer to the definition of Presumed Asbestos Containing Material (PACM).

Asbestosis – scarring of lung tissue (around terminal bronchioles and alveolar ducts) resulting from the inhalation of asbestos fibers.

Authorized Person – is any person authorized by the employer and required by work duties to be present in regulated areas.

Class I Asbestos Work – are activities involving the removal of thermal systems insulation (TSI) and surfacing ACM and PACM.

Class II Asbestos Work – is activity involving the removal of ACM that 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, and construction mastics.

Class III Asbestos Work – is repair and maintenance operations, where ACM, including thermal systems insulation and surfacing ACM and PACM, is likely to be disturbed.

Class IV Asbestos Work – is 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.

Disturbance – is activity that disrupts the matrix of ACM, crumbles or pulverizes ACM, or generates visible debris from ACM. Disturbance includes cutting away small amounts of ACM, no greater than the amount which can be contained in one standard sized glovebag or waste bag in order to access a building component. In no event shall the amount of ACM disturbed exceed that which can be contained in one glovebag or waste bag which shall not exceed 60 inches in length and width.

Enclosure – means an airtight, impermeable, barrier around an ACM designed to prevent the release of asbestos fibers into the air.

Fiber – means a particulate form of asbestos 5 micrometers (µm) or longer, with a length-to-diameter ratio of at least 3 to 1.

Friable – means asbestos-containing material that when dry, can be easily crumbled or pulverized to powder by hand pressure and is therefore likely to emit fibers.

Glovebag – is not more than a 60 x 60 inch impervious plastic bag-like enclosure affixed around an asbestos-containing material, with glove-like appendages through which material and tools may be handled.

High-Efficiency Particulate Air (HEPA) Filter – is a filter capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 µm in diameter.
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.

Mesothelioma – is a rare form of cancer of the lining of the lung or abdomen.

Negative Exposure Assessment – means a demonstration by the employer, that employee exposure during an operation is expected to be consistently below the Permissible Exposure Limit (PEL) and Excursion Limit (EL). It is job specific and the workplace conditions, type of material, control methods, work practices, and environmental conditions must closely resemble those of the activity to be represented.

Presumed Asbestos Containing Material (PACM) – is thermal system insulation and surfacing material found in buildings constructed no later than 1980. All materials meeting this definition must be presumed to be asbestos containing and handled as such unless analytical testing proves otherwise.

Regulated Area – is an area established by the employer to demarcate areas where airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limits.

Surfacing Material – is 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) – is ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

E. RESPONSIBILITIES

1. Alvernia University Safety Technician
   - Will prepare and review the Alvernia University Asbestos O&M Plan
   - Will update the Alvernia University Asbestos O&M Plan as needed
   - Will conduct periodic inspections of areas where asbestos is present
   - Will conduct asbestos awareness training for Alvernia University personnel
   - Will contact licensed asbestos contractors when asbestos abatement projects arise due to building demolition or renovation
   - Will maintain all records relating to asbestos and asbestos-containing materials for Alvernia University
   - Will maintain all records of employee exposure

2. Alvernia University Facilities personnel
   - Will practice safe work procedures in accordance with their training, and use the proper equipment and controls when working in areas containing asbestos or asbestos-containing materials
   - Will attend Asbestos Awareness safety training when scheduled
   - Will attend additional Asbestos training as required
   - Will not disturb asbestos or asbestos-containing materials
• Will notify the Alvernia University Safety Technician when a change is noted in the appearance of asbestos or asbestos-containing materials

3. Other Alvernia University personnel
   • Will not disturb asbestos or asbestos-containing materials
   • Will notify the Alvernia University Safety Technician if a change is noted in the appearance of asbestos or asbestos-containing materials

F. PERIODIC SURVEILLANCE
   The Alvernia University Safety Technician will perform periodic surveillance of all asbestos-containing areas identified in the Alvernia University O&M Plan. This surveillance will include a visual inspection to determine if the condition of the asbestos or asbestos-containing material has changed.

G. NOTIFICATION PROCEDURES
   1. Alvernia University personnel
      Every effort will be made to pre-notify individuals who work in or adjacent to areas where asbestos activities will take place. The notification will include the presence, location, and quantity of Asbestos-Containing Materials at the site and can be verbal or written. The notification will be made by either the Alvernia University Safety Technician, the Director of Facilities and Campus Operations, or the Director of Maintenance.

   2. Pennsylvania Department of Labor & Industry
      A notice will be sent to the Pennsylvania Department of Labor & Industry prior to the start of any asbestos abatement project for removals of regulated materials exceeding 260 linear feet or 160 square feet. Notifications must be filed at least 10 working days prior to the start of abatement work.

H. SIGNAGE
   1. Friable and non-friable asbestos and asbestos-containing materials in routine maintenance areas will be labeled as “Asbestos-Containing Material”. The label will be placed immediately adjacent to the asbestos-containing material.
   2. During asbestos abatement projects, abatement areas will be posted with the following information:

      DANGER
      ASBESTOS
      CANCER AND LUNG DISEASE HAZARD
      AUTHORIZED PERSONNEL ONLY

I. SAMPLING AND AIR MONITORING
   Sampling to determine if a substance is asbestos or asbestos-containing material shall only be performed by a licensed and accredited inspector. Samples will be sent to an accredited laboratory for analysis.

   Air monitoring during asbestos abatement work shall only be performed by an accredited third party.
Final clearance of a functional space after an action to remove, encapsulate, or enclose any asbestos-containing material will be given after a visual inspection of the area and analysis of air monitoring samples.

The work area will be considered safe for re-occupancy if all final clearance air samples are less than 0.01 fibers per cubic centimeter (f/cc) of air sampled as determined by Phase Contrast Microscopy (PCM) or Transmission Electron Microscopy (TEM) if PCM analysis is determined to be inadequate.

J. RESPIRATORY PROTECTION

All asbestos abatement contractors are responsible for their own Respiratory Protection Program and issuance of employee respirators. Alvernia University employees who must enter asbestos abatement work areas or have received specialized training for asbestos removal will be issued respirators as required. All Alvernia University employees must be cleared for respirator use prior to issuance of the respirator. Refer to the Alvernia University Respiratory Protection Program Section 3000 Number 1.

Respiratory protection that may be issued for asbestos activities include the following:

- Half-face or full-face tight-fitting air-purifying respirators with HEPA cartridges
- Powered Air-purifying respirators (PAPR) with a HEPA filter.

All Alvernia University personnel requiring respirators will be fit tested per the Alvernia University Respiratory Protection Program.

K. TRAINING

Alvernia University Maintenance and Housekeeping staff that work in buildings containing asbestos-containing materials will receive Asbestos Awareness training. Training is required annually and must last at least 2 hours. Training topics must include:

- Asbestos forms and uses
- Health effects from asbestos exposure
- Locations on campus
- Hazardous communication - training and signs / label requirements
- How to recognize friable asbestos
- Recognizing damage and deterioration of asbestos-containing material
- Precautions to prevent or minimize personnel exposure
- Housekeeping requirements
- Floor care

Alvernia University personnel will not be required to perform asbestos abatement work as part of their duties.

L. HOUSEKEEPING OF ASBESTOS-CONTAINING FLOORING MATERIALS

All asbestos-containing flooring materials must be maintained in the following manner:

1. Sanding of flooring material is prohibited.
2. Stripping of finishes should be done using low abrasion pads at speeds lower than 300 rpm and wet methods.
3. Burnishing or dry buffing should only be done on flooring that has sufficient finish so that the pad cannot contact the flooring material.
M. M. ASBESTOS WASTE DISPOSAL
All asbestos waste and debris must be promptly cleaned up by properly trained workers and disposed of in the proper manner. Only HEPA filtered vacuums may be used when vacuuming asbestos materials. All asbestos waste needs to be disposed in an asbestos-accepting Type II landfill.

N. RECORDKEEPING
All objective data and sampling data for asbestos projects are maintained in the office of the Alvernia University Safety Technician. Any information regarding abatement projects, including project scope, manifests, etc., will be maintained by the Safety Technician.

All records regarding employee exposures are maintained in the office of the Alvernia University Safety Technician. These records must be maintained for 30 years.

Training records will be maintained in the office of the Alvernia University Safety Technician.

Records must be kept for all activities of inspections, abatement and sampling. The Alvernia University Safety Technician maintains the following:
- training records
- medical surveillance, where applicable
- inspection reports
- buildings surveyed for asbestos-containing material
- bulk sample analysis information sheet for each sample collected
- respirator fit testing and medical clearance for each Alvernia University employee using a respirator for asbestos related work

O. OUTSIDE CONTRACTORS

P. ALVERNIA UNIVERSITY ASBESTOS SURVEY
See attached Section 300 Number 2.

Q. REFERENCES
2. Code of Federal Regulations, Title 40, Part 763 Asbestos
A. ALVERNIA UNIVERSITY ASBESTOS SURVEY

See attached.
This page removed. See the Alvernia University Safety Technician.