ASBESTOS MANAGEMENT PLAN

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1. Scope

This Asbestos Management Plan applies to all facilities located on the University of Montana Mountain, West, and Missoula College campuses as well as facilities located at Lubrecht Forest and the Flathead Lake Biological Station.

2. Purpose

The Asbestos Management Plan (AMP) establishes policy and procedures to manage asbestos and ensure compliance with applicable federal, state and local regulations.

The University of Montana (UM) has implemented this plan to identify, inspect, control, maintain and improve our handling of asbestos related issues across the campus, follows a practice endorsed by the U.S. EPA known as: management (of asbestos) in place. The goals of the Asbestos Management Plan are to:

- Minimize exposure of employees, faculty, students, and visitors to airborne asbestos.
- Comply with all pertinent, regulatory, and University requirements related to ACM. UM recognizes and will comply with all applicable Federal, State, and local governing regulatory agency regulations/guidelines pertaining to asbestos-containing materials.
- Establish procedures for the identification, evaluation, control, maintenance, disturbance, abatement, and waste storage/disposal of ACM at UM.
- Remove, enclose, encapsulate, or repair hazardous asbestos-containing material as required by government or University regulations and as needed to protect human health.
- Provide asbestos awareness training to facilities maintenance employees.
- Appoint an Asbestos Program Manager (APM) to evaluate potential asbestos-related hazards, coordinate the sampling of suspect materials and oversee asbestos-abatement projects.
- Eliminate the installation of new asbestos-containing material whenever possible.
- Ensure that UM asbestos-related contracted/subcontracted work is properly planned, reviewed and conducted to prevent the release of asbestos fibers until the ACM in a building is scheduled to be professionally removed in advance of maintenance, renovation, or demolition activities.

This plan outlines the University's procedures regarding the day-to-day management of asbestos and the planned or accidental disturbance of asbestos. This program is not a substitute for proper asbestos training and is not a complete reference for asbestos information. Please consult the "Applicable Regulations" section within this management plan or contact the APM for more information.

The UM Asbestos Management Plan shall apply to not only employees of Facilities Services, but to outside contractors as well. Personnel, regardless of affiliation, working at or for UM, will be held contractually accountable to the same health and safety regulations and standards that are required by the state and federal environmental protection agencies. No contractor or employee working at or for UM shall be permitted to work in areas that contains or has the potential to contain damaged or significantly damaged asbestos until such time that the hazard has been mitigated.

Facilities Services maintains this plan and is responsible for overseeing compliance with this plan, and applicable regulations and policies. Facilities Services will provide consultation services and assistance with rule application, interpretation, program policies, and work practices. Facilities Services will also periodically review organizational units performing construction and alterations to ensure compliance with this plan, and applicable regulations and policies.

3. Definitions

Aggressive method: Removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact ACM.

AHERA: Asbestos Hazard Emergency Response Act. EPA regulations (40 CFR Part 763) covering management of asbestos in **KS12 schools**. AHERA requires that education agencies periodically inspect the condition of asbestos materials in schools and share their findings with the parents of their students.

Asbestos: A naturally occurring mineral that is mined throughout the world in countries such as the China, Canada, South Africa, Russia and Australia. The most common types of Asbestos (chrysotile, amosite and crocidolite) are removed from the ground and then processed for automobile brakes, floor tiles, pipe and duct insulation, decorative plasters, spray-on fireproofing and a wide range of other products.

Asbestos-containing material (ACM): Any material containing more than one percent asbestos. See Appendix A for a sample list of ACMs.

Asbestos Program Manager (APM)

1. Maintains the Asbestos Management Program and revise as necessary.
2. Coordinates necessary asbestos training for UM staff.
3. Conduct asbestos identification activities.

4. Maintains records of all building surveys, material sampling, training, abatement activities, air monitoring, and negative exposure assessments.
5. Provides technical review of project design and specifications for asbestos abatement on “Major” and “Minor” projects.
6. Investigates asbestos concerns of students, faculty, staff, contractors, building occupants, and visitors on University property.
7. Periodically monitors activities at asbestos abatement job sites for compliance to applicable regulations. See Appendix B for a summary regulatory overview.
8. Reviews State of Montana project notifications.
9. Review regulatory variance requests from contractors and consults with Montana State ACP for approval.
10. Meets with all regulatory agencies as needed for inspections and asbestos related inquiries.
11. Maintains the state Department of Environmental Quality annual permit.

Authorized Person: A person authorized by UM and required by work duties to be present in a “regulated area”.

Bulk Sample: Means a small portion of a suspected **asbestos** containing building material collected for laboratory analysis to determine the **asbestos** content.

Class Work: OSHA categorizes abatement projects into four (4) classes:

Class I The most potentially hazardous class of abatement. The removal of the TSI and sprayed-on or troweled on surfacing material are examples of Class I activities. Most Class I projects are not completed in a single day. Work activities, that involves the removal of boiler, pipe and duct insulation and surfacing material such as spray-on fire proofing. Class I work involves the assistance of an outside contractor, specifically trained and licensed to perform such work.

Class II: The removal of other types of ACM other than TSI or surfacing material. Examples of Class II work include floor tile removal and roofing projects. Work activities that involve the removal of other than boiler, pipe and duct insulation or surfacing material such as spray-on fireproofing. Class II work involves the assistance of an outside contractor, specifically trained and licensed to perform such work.

Class III: Repair and maintenance operations that are small-scale and short duration. Class III projects were formerly referred to as Operations and Maintenance (O&M) activities.
Generally, Class III: Projects are completed in less than one day, can be performed by trained Physical Plant Personnel, or licensed outside contractors. Class III work most often means repair of damaged asbestos utilizing an enclosure or encapsulation (i.e. dip lag).

Class IV: 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. Work that involves the maintenance and custodial activities during which employees contact but do not disturb asbestos containing materials or "presumed" asbestos containing materials. It may involve the clean-up of mechanical or storage areas, including dusts, waste and debris in those areas where asbestos is, was or may be present.

Competent Person: A person who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective action to eliminate or mitigate the hazard.

Critical Barrier: Means one or more layers of plastic sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area. Also known as Containment Barrier or Enclosure.

Decontamination area: An enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment that are contaminated with asbestos.

Demolition: The wrecking or removal of any load supporting structural member and any related razing, removal or stripping of asbestos containing or presumed asbestos containing materials.

Disturbance: Activities that disrupt asbestos or asbestos containing materials or that generate visible debris. It includes but is not limited to; cutting, kicking, striking or otherwise breaking or damaging asbestos or presumed asbestos containing materials.

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

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

Friable: Material that contains more than 1% asbestos that can crumbled, crushed or reduced to powder by hand and finger pressure. Asbestos is most hazardous to health when it is friable and airborne. The most friable material is sprayed on fireproofing that which is normally applied to ceilings and structural metal supports to provide a fire rating, or pipe covering on heat and steam lines that has become damaged.

Glove-bag: Not more than a 60x60 inch impervious plastic bag-like enclosure affixed around an asbestos-containing material, with glove-like appendages through which material and tools may be handled.

HEPA (High Efficiency Particulate Air): A filter, normally found inside a respirator, HEPA vacuum or other type of filtering system that traps or retains 99.97% of all particles that are 0.3 micrometers or greater in diameter.

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.

Inspection: An activity undertaken in a school building, or a public and commercial building, to determine the presence or location, or to assess the condition of, friable or non-friable asbestos-containing building material (ACM) or suspected ACM, whether by visual or physical examination, or by collecting samples of such material.

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

Negative Exposure Assessment (NEA): A demonstration by the employer that employee exposure during an operation is expected to be below the PELs.

Permissible Exposure Limit (PEL): The maximum allowable exposure to asbestos at 0.1 fibers per cubic centimeter of air as an eight (8) hour time-weighted average.

Presumed Asbestos Containing Material (PACM): Suspect materials such as boiler, duct and pipe covering and surfacing material found in buildings that were constructed before 1980 that has not been tested to confirm whether or not it contains asbestos. Until proven by air or bulk sample analysis as being non-asbestos, any material not yet tested is considered to be presumed asbestos containing material.

Project Designer: A person who has successfully completed the training requirements for an abatement project designer established by 40 U.S.C. Sec. 763.90(g).

Regulated Area: An area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed the permissible exposure limit.

Regulated asbestos-containing material (RACM): (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 40 CFR 61 subpart M (NESHAP).

Removal: All operations where ACM and/or PACM is taken out or stripped from structures or substrates, and includes demolition operations.

Renovation: Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

Repair: Overhauling, rebuilding, reconstructing, or reconditioning of structures or substrates, including encapsulation or other repair of ACM or PACM attached to structures or substrates.

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).

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

Thermal system insulation (TSI): ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain contains more than 1% asbestos.

4. Responsibilities

A. Asbestos Program Manager (APM) maintains this plan and is responsible for overseeing compliance with this plan, and applicable regulations and policies. APM will provide consultation services and assistance with rule application, interpretation, program policies, and work practices. APM will also periodically review organizational units performing construction and alterations to ensure compliance with this plan, and applicable regulations and policies.

B. UM Safety Manager and the APM have developed an operations and maintenance plan, which includes, but is not limited to developing safe workplace practices and controls, training employees, maintaining records, responding to reports of damaged ACM, restricting access to hazardous spaces to prevent exposure, and maintaining labels and signs to warn of ACM.

C. Supervisors, Deans, Directors, Chairs

1. Contact the APM and Facilities Services for testing of suspect materials encountered during routine operations.
2. Immediately contact the APM for clean-up/repair if an employee reports that ACM has been discovered in a damaged state or was

accidentally disturbed.

D. All campus members, including faculty, staff, students, visitors, and external contractors and consultants

1. Do not, damage, disturb, clean or remove asbestos-containing materials unless trained and authorized.
2. Contact your supervisor to have a suspect asbestos containing material identified, or to report suspected asbestos debris or damaged ACM.

If employees have specific concerns about the potential for asbestos in their office – either that they see suspect materials or notice deterioration of floors, drywall, ducts or other physical features – they should contact the Facilities Services work order desk online or by calling the APM to arrange a visual inspection of the area and subsequent actions as necessary.

Before disturbing suspect materials, contact the APM to determine whether or not the area contains asbestos. If necessary, the material will be tested to determine the presence of asbestos. If the area contains damaged asbestos, an outside asbestos abatement contractor will have the material repaired or removed. If debris or the potential for debris from damaged asbestos is or may be present, proper procedures will be used to clean the contaminated area. OSHA regulations require the area to be either wet mopped, or vacuumed with a HEPA vacuum. Sweeping of asbestos spills or use of a non-HEPA vacuum is prohibited.

5. Procedures

An Operations and Maintenance program is designed to manage asbestos in place to safeguard the health of building occupants. This is accomplished by training, cleaning, work practices, and inspections to maintain ACM in good condition. Removal is often not the best course of action to reduce asbestos exposure. The O&M program is designed to prevent asbestos fiber release and control fiber releases if they occur. A well-run O&M program may be all that is necessary to control the release of fibers. Emphasizing the importance and effectiveness of a good O&M program is critical to putting the potential hazards of asbestos exposure in proper perspective. *That* effort centers on communicating the following three facts to employees:

1. The University of Montana employs a manage in place program. It means having a program that reduces the release of asbestos fibers, and ensures that proper controls and cleanup procedures are implemented if fibers are released. If in doubt about the possibility of disturbing ACM during maintenance activities, adequate precautions should be taken to minimize fiber release.

2. Removal is often not the best course of action to reduce asbestos exposure. In fact, improper removal can create a dangerous situation where none previously existed. Asbestos removals tend to elevate the airborne level of asbestos fibers in a building. Unless all safeguards are properly applied, a removal operation can actually increase rather than decrease the risk of asbestos related disease.

3. DEQ only requires asbestos removal during building demolition or renovation activities. This is done to prevent significant public exposure to airborne fibers.

The following general procedures outline how asbestos work will be conducted and how ACM will be managed in place.

A. Evaluating damaged/disturbed ACM.

ACM may be damaged by wind, vibration, water, or by contact through normal building use, renovation and construction. Asbestos that is damaged or worn to a degree that has the potential to release fibers must be repaired or removed upon discovery, to decrease the potential for exposure.

Departments or units that identify building damage need to notify the facilities APM so that they may assess the damage and determine if the damage includes ACM. During routine maintenance and custodial services, facilities personnel should evaluate the condition of ACM and perform the following:

i. Reporting Requirements

University employee's potential exposure: Report disturbed and damaged ACM when an employee exposure has occurred or is suspected. The APM will investigate and, if necessary, will contact a neutral party Industrial Hygienist to develop an exposure assessment report. Personnel who have been, or believe they have been exposed to asbestos should file an accident investigation report with their supervisor and a First Report of Injury Form with Workers' Compensation.

ii. Assessing and closing spaces for occupancy

When ACM or material that is suspected of containing asbestos has been reported as damaged or disturbed, facilities departments will promptly investigate

iii. Notifications

Facilities departments will post temporary signage at all entrances indicating the space is temporarily closed to occupants, and provide notification to the building coordinator/manager and other parties needing immediate notification.

iv. Repairing damaged ACM

Facilities departments will contract for, and oversee, repair of damaged ACM and open the space for occupancy after a negative exposure assessment is completed and the area is cleared by a state qualified independent consultant.

B. Hazard Assessments

Hazard assessments or surveys, conducted by a state certified Asbestos Inspector, will evaluate the current condition of ACM/PACM in buildings, and determine the risk for potential future damage.

Inspector Training: Any person engaged in the inspection of a facility for the identification of ACM shall have successfully completed an EPA-approved 3-day inspector course of study.

Based on this visual inspection, which may include touching to determine friability, the Inspector will identify the type of asbestos (air cell, mag block, transite etc.), its condition, potential for disturbance and a priority level for corrective actions. The corrective actions are:

- Repair
- Encapsulation/Enclosure
- Removal, or
- No Action Required

C. Warning signs and labels for ACM

Signs. Regulations require that signs be posted at the entrance of restricted access areas where an asbestos exposure hazard exists and cleanup or repair is impractical or has been deferred.

D. Restricted Access Spaces

Restricted access spaces are places within buildings, such as crawl spaces, pipe chases, and space above suspended ceilings that may be identified as contaminated with asbestos debris. These spaces require specific precautions for entry. Facilities Services makes the determination as to where a space is to be managed as a restricted access space in concurrence with OSHA. An inventory of restricted access spaces is to be maintained by the APM. Facilities departments restrict access where possible by securing doors and other openings and maintaining warning signs.

E. Respiratory Protection

All university employees must be provided with proper protective clothing and respirators when assigned to work in Class III asbestos work or Class IV work. The university maintains a respiratory protection program for its employees in accordance with OSHA Respiratory Protection Standard (OSHA 29 CFR 1910.134). Contact Risk Management for information on the UM respirator program.

F. Cleaning

The gradual deterioration of ACM can occur; therefore, asbestos-containing dust could be present. Special cleaning practices will be used to collect residual asbestos dust. Routinely cleaning floors using wet methods is an example of one such practice. Custodial and maintenance workers will also identify and report areas that are in need of special cleaning or repair. This type of cleaning must be done properly because the use of improper techniques may result in widespread contamination, and increase air-borne asbestos fiber levels in the building. In addition, improper cleaning may cause damage to the ACM, thus releasing more airborne asbestos fibers.

G. Air monitoring

As part of an O&M program, in buildings known to contain asbestos, air monitoring will be used for supplemental information along with a comprehensive visual and physical ACM inspection and re-inspection program. For employees who are, or may reasonably be expected to be exposed to airborne concentrations of asbestos fibers, the University intends to conduct periodic breathing zone air monitoring. Also, ambient air testing will be conducted.

If the ACM is currently in good condition, increases in airborne asbestos fiber levels at some later time may provide an early warning of deterioration or disturbance of the material. In that way, supplemental air monitoring can be a useful management tool. If Facilities Services chooses to use air monitoring in an "early warning" context, a knowledgeable and experienced individual should be consulted to design a proper sampling strategy.

This air monitoring should supplement, not replace, physical and visual inspection. Visual inspection can recognize situations and anticipate future exposure (e.g., worsening water damage), whereas air monitoring can only detect a problem after it has occurred, and if fibers have been released.

Note that the collection of air samples for supplementary evaluation should not use aggressive air sampling methods. Aggressive sampling methods, in which air is deliberately disturbed or agitated by use of a leaf blower or fans, should only be used at the completion of an asbestos removal project inside the abatement containment area.

H. Specific Work Procedure

1. **Work in spaces above ceilings with ACM fire proofing:** Ceiling spaces with asbestos-containing fire proofing will be managed as restricted access spaces. When access is required for any reason, certified asbestos workers will remove and clean the top of the ceiling tiles in the area to be accessed by others unless such a procedure is not required as determined through a hazard assessment conducted by Facilities Services. Facilities departments will restrict access to these spaces through warning labels and administrative controls.

2. **Custodial Maintenance Procedures Care of Asbestos Containing Flooring**

a. Stripping

- Stripping of vinyl asbestos floor coverings should be done as infrequently as possible, e.g., once per year maximum and preferably when the building is unoccupied. Excessive stripping of floors using aggressive techniques will result in increased levels of asbestos fibers in the air.
- When stripping a floor becomes necessary, be sure to follow appropriate work practices. Consult with floor tile and floor finish product manufacturers for a particular problem(s) concerning the maintenance of your floors.
- **Never perform dry stripping**. Always strip floors while wet. Prior to machine operation apply an emulsion of chemical stripper in water to the floor with a mop to soften the wax or finish coat. After stripping and before application of a high solids floor finish, the floor should be thoroughly cleaned while wet.
- The machine used to remove the wax or finish coat should be run at a low rate of speed (i.e., ranging between 175-300 rpm) during the stripping operation. There is a direct correlation between machine speeds and the release of asbestos fibers from asbestos containing floor coverings. The higher the machine's speed the greater the probability of asbestos fiber release.
- When stripping floors becomes necessary, the machine used for stripping the finish should be equipped with the least abrasive pad as possible, a black pad being the most abrasive and the white pad the least abrasive. Consult with your floor tile and floor finish product supplier for recommendations on which pad to use on a particular floor covering.
- Never operate a floor machine with an abrasive pad on un-waxed or unfinished floor containing asbestos materials. A minimum of 3 coats of floor finish must be in place before buffing. Remember that in general, each time you buff, you remove one layer of finish.

b. Finishing/Buffing

- Prior to applying a finish coat to a vinyl asbestos floor covering, apply 2 to 3 coats of sealer. Continue to finish the floor with a high percentage solids finish. It is an industry recommendation to apply several thin coats of a high percentage solids finish to obtain a good sealing of the floor's surface, thereby minimizing the release of asbestos fibers during finishing work.
- When spray buffing floors, always operate the floor machine at the lowest rates of speed possible and equip the floor machine with the least abrasive pad as possible.
- When dry burnishing floors, always operate the floor machine at the lowest rate of speed possible to accomplish the task (i.e., 1200-1750 rpms), and equip the floor machine with the least abrasive pad as possible.
- After stripping a floor and applying a new coat of sealer and finish, use a wet mop for routine cleaning whenever possible. Petroleum based mop treatments are not recommended for use when dry mopping,

c. Additional Precautions to Maintain Floor Coverings

- Check to see if chair and desk glides are in good condition and replace where indicated. Worn glides can gouge the floor coverings and possibly cause asbestos fiber release.
- During the winter months when sanding and/or salting of icy parking lots becomes necessary, it is an industry recommendation that matting be used at the entrance to the school building and inside the doorway where feasible. This would significantly eliminate the scuffing of floors by abrasive sanding materials brought into the building on the shoes of building occupants. Also, more frequent wet mopping and dry mopping of floors should be performed during the winter months to minimize damage to the floors.
- Where feasible, use mats at entranceways to cafeterias, gymnasiums, libraries, etc., to protect against possible scuffing of floor covering(s), etc.

3. Building and Mechanical Trades Maintenance Procedures

Asbestos in good condition should not be disturbed. In those areas where alteration, demolition and renovations are being performed, asbestos removal should be considered.

a. Prohibited Activities

- Cutting or drilling holes in plaster ceilings and walls in buildings unless the ceiling and walls have tested asbestos free. (Exception - if other engineering controls are used (i.e. water / HEPA vacuum), then limited work can be performed by workers who have received EPA 16 hour operations and maintenance course.
- Dry scraping or sanding of plaster walls in buildings unless materials have been tested and are negative for asbestos.
- Sweeping, dry brushing or using a non-HEPA vacuum in a mechanical room or storage area where the presence of asbestos containing material is possible.
- Removing ceiling tiles in buildings if there is a possibility that pipes with damaged asbestos insulation may be present.

4. Guidelines for Working in Asbestos Containing Environments

- When working in a room or area (Mechanical spaces) that contain or may contain asbestos containing materials in good condition, dustless (e.g., wet mopping instead of sweeping) cleaning methods should be utilized.
- The APM should be notified before work is initiated in areas where the asbestos is discovered to be in fair to poor condition.
- Utilize HEPA vacuum if a suspect material is disturbed.

I. Employee Training

Training is another component of the UM Asbestos Management Plan. The objective is to establish proper awareness and understanding of work practices for each and every employee who does or may come into contact with asbestos containing materials (ACM) or those that are presumed to be asbestos containing materials (PACM).

All UM personnel with risk of contact with ACM in performance of their work duties will be trained in the recognition of asbestos hazards, the health effects of exposure, PPE and emergency procedures.

Inspector Training: Any person engaged in the inspection of a facility for the identification of ACM shall have successfully completed an EPA-approved 3-day inspector course of study. This person must also be licensed by the State of Montana to perform asbestos inspections according to DEQ regulation.

Asbestos Awareness training: The following groups will receive mandatory Asbestos Awareness training on an annual basis:

- Building Trades (Carpenters, Locksmith, Painters)
- Mechanical Trades (Plumbers, HVAC, Electricians)
- Custodial Staff
- Heating Plant Staff
- Vehicle Repair Mechanics
- IT personnel working in areas known to contain ACM

The training will include a discussion of the following:

- Types and uses of asbestos
- Hazards associated with asbestos
- Proper cleaning techniques
- Appropriate levels of personal protective equipment
- Proper engineering controls
- Regulatory requirements
- Appropriate handling practices for asbestos, and
- Hands on training for personnel with 16 hours of O&M

6. Construction, Alteration, Maintenance, and Minor Installations

Minimizing ACM in new construction

Facilities Services will maintain programs to minimize the introduction of ACM in new construction and renovation.

General requirements for abatement

All units planning building alterations, renovation or maintenance work where ACM may be disturbed need to comply with all federal, state and local asbestos regulations to protect workers, occupants, and the environment. Units will first obtain historical data from the facilities department or conduct an asbestos survey, including regulated building materials, in the vicinity of planned work using a Montana State certified Asbestos Inspector. Building coordinators must be notified of planned asbestos work, and provide notification to occupants. Employees, consultants or contractors working on ACM need to be asbestos certified and use best work practices, equipment and controls to protect themselves and occupants.

Capital projects

Capital projects that impact ACM must include a State certified consultant to review records and survey all areas within the scope of the project for ACM or consult with the appropriate facilities department on asbestos records. If needed, the project consultant will develop a project design for removal and disposal of ACM. Units contracting consultant services will periodically review qualifications and audit performance. The asbestos survey will be provided to potential contractors prior to bidding.

Maintenance work

Building maintenance that is anticipated to require any form of demolition or work within close proximity of ACM in a manner where disturbing ACM is anticipated requires the protection or removal of ACM prior to beginning work.

The following buildings have vermiculite insulation in the attic space. If access is required in or through these spaces for building maintenance, PPE is required upon entry.

001 – Main Hall
003 – Math building
005 – Natural Sciences
007 – Forestry building
012 – Stone Hall

Minor alterations/installations

Departments performing or contracting minor installations or alterations, including office furnishings, audio visual equipment and other fixtures will work with the facilities department to obtain an asbestos survey and avoid impacting ACM. If ACM will be impacted qualified workers must perform the work.

Asbestos Abatement

The design team for the University and/or the Montana Department of Architecture and Engineering (State A/E) Projects must include an environmental consultant to survey all areas impacted by construction for asbestos containing material and develop a plan for removal and waste disposal for all Class 1 and Class 2 projects.

Missoula City Asbestos Ordinance – Any plans/permits submitted or applied for after March 11, 2008 to demolish, repair, alter, renovate, remodel, lift, burn or move any building/structure that falls within the category listed above will require a letter from an accredited asbestos inspector stating that: 1) the asbestos survey is complete. A separate letter also needs to be submitted which has been signed by the contractor and owner stating that they are aware of the asbestos survey contents. These letters need to be given to the Building Department before a permit/plan will be issued.

The University does not allow asbestos containing materials to be used in new construction/renovation projects.

The policy of the University is to engage a licensed abatement contractor for removal of asbestos and other hazardous materials from the work site on any renovation or construction project prior to the general contractor commencing work. The limits of removal will be specified by the project consultant and documented in the contract documents.

The general contractor shall not work outside these limits without prior written approval from the owner. If the contractor identifies or suspects any asbestos or other hazardous materials within the limits of construction, he shall immediately stop work and notify the owner. The owner shall engage a licensed contractor to remove the material before proceeding. Any delays caused by the work stoppage shall be added to the completion time of the contract.

The University will include in the construction documents, a section addressing asbestos and other known hazardous materials. This section will include a good faith survey of known hazardous materials in the building. This document is not guaranteed to be all-inclusive. The general contractor is required to protect all of his workers and or subs workers on the project in accordance with all current pertinent requirements.

If the general contractor or any of his subs intentionally or unintentionally disturbs hazardous materials in the work site, the contractor is liable for all associated liabilities and claims.

An asbestos inspection of the project worksite must be conducted by an asbestos inspector who is accredited by the State of Montana DEQ. The University must provide a written inspection report to all contractors submitting a bid to undertake any construction, renovation, remodeling, maintenance, repair, or demolition projects before a bid is submitted. Failure to comply with these requirements may subject the University to mandatory fines and construction delays. Don't assume that new buildings, including buildings constructed in the 1990s, are asbestos free.

A copy of the survey must be posted at the project site during construction.

A copy of the inspection report, or executive summary of findings and appropriate portions of the survey, must be included in the contract documents and posted at the project site. It is possible to encounter hidden asbestos containing materials that were not discovered in the good faith survey. If materials suspected of being asbestos containing are encountered during construction activities, the construction/renovation contractor must immediately stop work and contact the Project Manager. Work must remain stopped and the suspected material, remain undisturbed until identification and necessary abatement are accomplished. UM building coordinators and or relevant deans, chairs and directors must be notified of all proposed asbestos abatement activities to be conducted within their assigned building(s).

Designated representatives from Facilities Services, Environmental Health & Safety, Risk Management, or the asbestos consultant may stop abatement or construction work at any time if unplanned asbestos disturbance is found.

- Only licensed asbestos abatement contractors, who will follow all federal and state regulations, will perform asbestos abatement at UM.
- When asbestos abatement activities are to be performed inside buildings, Facilities Services shall notify the occupants of the building. In addition, signage will be posted on each entrance to the building, stating that asbestos work is being conducted in the building, and to stay out of all posted asbestos work areas.
- Labeling and the posting of warning signs is the responsibility of thecontractor, and are required at all entrances to asbestos work areas where abatement is being performed (Regulated Area). The signage shall meet the requirements outlined in the OSHA Asbestos Standard for the Construction Industry (29 CFR 1910.1101)
- Bags, both glove and black polyethylene bags used for the containment and disposal of asbestos shall be clearly marked. The word "Asbestos" and the appropriate warnings must be imprinted on the bag.

7. Emergency Response Procedures

Whenever an asbestos emergency occurs or is discovered, the APM should be immediately notified at extension 4180. After hours, contact the supervisor on call.

The following steps in order should be taken:

1. If you do not know whether something is asbestos, assume that it is, until it is proven otherwise.
2. Evacuate the area where the incident has occurred.
3. Persons who have or might have been exposed should wait for the APM to arrive on the scene so that proper decontamination can be performed. All persons that were exposed or could have been exposed will be required to complete the University of Montana Incident Report.
4. Turn off all fans and A/C units. HVAC and other forms of ventilation can be secured by contacting Physical Plant at extension 6091.
5. Disturb the material as little as possible, and take measures to prevent others from disturbing the damaged material.
6. Secure the area. Prevent the spread of the spilled material by keeping people from walking through the area by closing the door and posting warning signs.
7. Contact the APM OR contact the Work Control Desk directly, at extension 6091, or after hours, the supervisor on call.
8. The APM, will evaluate the situation to determine the most appropriate remediation response action.
9. The APM will ensure that exposed employees are referred to Environmental Health & Safety and Risk Management.

Asbestos Spill Cleanup Procedures

Major Asbestos release events may pose a health risk to the occupants of the building, and must be cleaned up by a licensed asbestos worker, and must include air clearance testing before building occupants are allowed back into the affected space.

Clean up of unregulated amounts of ACM, may be done by Facilities Services personnel who are have received EPA developed 16 hour O & M training, using wet methods and/or a vacuum cleaner equipped with a high efficiency particulate (HEPA) filter.

Alternatively, an asbestos contractor may be used to clean the spill during any repair/abatement of damaged ACM.

The ACM waste and contaminated cleaning materials must be double bagged in a polyethylene “Asbestos” bag, and taken to the asbestos waste storage facility, pending proper disposal.

8. Surveys and Inventory

Asbestos inspections of University buildings were performed and completed in 1984. The University maintains this database of materials contained in each building on the University campus. This database indicates the location, quantity, and a physical description of known ACM in each building. In order to keep this database up to date, a program of periodic surveillance is conducted.

Inspections will be performed by operations and maintenance individuals, whenever possible, who are familiar with that building and have received a minimum of 16 hours of asbestos training (O&M workers). Ideally, the same person should perform each inspection in order to increase the likelihood of noticing any changes in the condition of ACM over time.

The APM will take samples during inspections, or at the request of any employee who has been asked to perform work in an area that does, or may contain asbestos. After the "bulk" sample has been taken, the material is sent to an accredited laboratory for analysis.

Periodic surveys will be conducted with emphasis placed on those areas in which personnel are either scheduled or likely to enter for the purpose of performing work. The protocol, which shall be followed for asbestos sampling and analysis, will adhere to Montana Asbestos Control Program inspection requirements.

Facilities Services shall maintain an inventory of all known locations of ACM in UM buildings. This information will be available online and disseminated to Facilities Planning, Engineering, Facilities Trades, ERM, and should be consulted prior to scheduling work in buildings.

In addition to the normal inspection schedule, University employees are encouraged to notify the office of the APM whenever they suspect a change in condition of a known, assumed, or suspected ACM. University employees such as maintenance and custodial personnel are intimately familiar with the buildings in which they work, and they form the first line of defense against accidental damage and unauthorized disturbance of ACM in the building. The active participation of the University and maintenance personnel is the most important factor in successfully executing the University O&M plan.

Any changes in the status of ACM at a building are recorded as addendums to the original inspection report for a building. Changes in condition may be caused by authorized abatement activities, deterioration due to age or damage, or ongoing testing of building materials at the building.