

UW ASBESTOS MANAGEMENT PLAN

MARCH 21, 2016

1. Scope:

This Asbestos Management Plan applies to all locations as outlined in Administrative Policy Statement (APS) 12.1, *Managing Asbestos and Other Regulated Building Materials*.

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 compliance procedures outlined herein are intended to complement compliance responsibilities outlined in APS 12.1.

3. Definitions / Acronyms

Asbestos Hazard and Emergency Response Act (AHERA) is the U.S. Environmental Protection Agency (EPA) regulation requiring kindergarten through 12th grade schools to inspect asbestos-containing materials (ACM), prepare an asbestos management plan and perform asbestos actions specific to the regulation. These facilities are defined in section 9.

Asbestos Containing Material (ACM) is any material that contains one percent or more asbestos. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, asbestos-cement board or shingles, roofing materials, wall and ceiling plaster or joint compound, ceiling tiles, and gasket materials.

Asbestos Survey is a building assessment with materials sampling and documented in a written report that must be completed prior to any construction, renovation, remodeling, maintenance, repair, or demolition to determine whether materials to be worked on or removed contain asbestos.

Class I, II, and III asbestos work is defined in the regulations.

Class I – removal of thermal system insulation (TSI) or surfacing ACM. Class II – removal of ACM other than TSI or surfacing.

Class III – repair or maintenance operations where less than three linear or three square feet of ACM may be disturbed.

Designated person (DP) conducts periodic surveillance of AHERA designated buildings, ensure notifications are completed among other AHERA requirements are fulfilled.

Negative Exposure Assessment (NEA) means a demonstration by the employer (which complies with the criteria in WAC 296-62-07709) that employee exposure during an operation is expected to be consistently below the permissible exposure limit (PEL).

Restricted access spaces: Spaces, due to their unique hazard, that may require special training and/or work practices, respiratory protection and protective clothing for entry.

Suspect asbestos-containing materials are materials that have historically contained asbestos including, but not limited to, surfacing materials, thermal system insulation, roofing material, fire barriers, gaskets, flooring material, and cement siding.

4. Department Responsibilities

A. Environmental Health and Safety (EH&S)

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

B. Facilities departments – all sites

The following campuses, organizational units, and offsite locations conduct their own building maintenance and/or custodial service.

- Seattle Facilities Services (FS)
- Bothell FS
- Tacoma FS
- UW Medical Center
- Harborview Medical Center
- Center for Sustainable Forestry at Pack Forest
- Friday Harbor Laboratories
- Olympic Natural Resources Center
- Intercollegiate Athletics

For each facilities department, a qualified person, or contracted agent, must be identified as the responsible official for overseeing the management of ACM in their University-owned and managed buildings. A qualified outside contractor or Seattle FS may serve as the contracted agent if documented through a formal agreement or contract. The qualified person or agent must be trained and current (certified) according to U.S. Environmental Protection Agency (EPA) requirements found in the Asbestos Hazard Emergency Response Act (AHERA) as an AHERA Building Inspector.

To ensure employee safety compliant with the L&I regulations, a written operation and maintenance plan must be developed and maintained by each facilities department, with EH&S support. This includes, but is not limited to, developing safe work 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. Facilities departments may adopt and supplement this plan or develop an equivalent independent plan.

The responsibility for managed sites and facilities where maintenance and custodial work is performed by non-University employees is outlined in section 10.

C. Other departments

Sections of this plan that apply or could apply to other departments include:

- i. Reporting of damaged ACM (section 5B),
- ii. Managing restricted access spaces (section 5D),
- iii. Training employees, including two-hour asbestos awareness (section 6A, 6B) or wallboard systems asbestos training (section 6C),
- iv. Making minor alterations such as installations of offices cubicles, fixed equipment, or other fixtures (section 8E),
- v. Departments managing AHERA regulated schools (section 9),
- vi. Departments leasing spaces from private-sector owners, or leasing University space to non- University tenants (section 10), and,
- vii. Managing and archiving asbestos records (section 11).

5. Procedures

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

A. Asbestos work (Class I, II and III) by outside contractors

Work impacting ACM in pipe lagging, fire proofing, gaskets, mastics, ceiling systems, electrical systems, roofing materials, conveyance brakes, cement asbestos board, and other ACM is to be conducted by a certified asbestos contractor and performed by certified asbestos workers, per regulations.

Exceptions: UW employees trained in the following Class II:

- i. Class II asbestos-containing wiring work.
- ii. Class II vehicle brake and clutch work.

B. 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 their facilities department so that they may assess the damage and determine if the damage includes ACM.

During routine maintenance and custodial services, facilities department personnel should evaluate the condition of ACM and perform the following:

- i. Reporting requirements
 - a. All Campuses – University employee’s exposure: Report disturbed and damaged ACM to EH&S for all sites when an employee exposure has occurred or is suspected. EH&S will perform an investigation and develop an exposure assessment report. Personnel who have been, or believe they have been exposed to asbestos should file an incident report using the UW Online Accident Reporting system (OARS), or equivalent system.
 - b. UW Seattle Campus: Seattle FS employees who identify or receive reports of disturbed and damaged ACM on the UW Seattle campus must inform Campus Engineering. Campus Engineering will then report to the Puget Sound Clean Air

Agency as a condition of the UW Seattle Air Operating Permit when required by the regulations.

- 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 the area and close

the space to occupancy. Facilities departments may confer with EH&S to make this determination.

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 visual assessment and/or following clearance air monitoring by qualified personnel.

C. Warning signs and labels for ACM

i. Signs

The 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.

ii. Labels

Where unlabeled ACM exists above ceilings and other concealed spaces, general warning labels are required to limit access to only authorized personnel. If ACM is labeled in accordance with the Washington State Department of Labor and Industries (L&I) asbestos standard, general warning labels at the access points are not required.

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. EH&S makes the determination as to where a space is to be managed as a restricted access space. [An inventory of restricted access spaces](#) is maintained on the EH&S website. Facilities departments restrict access where possible by securing doors and other openings and maintaining warning signs.

E. Specific work procedures

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The following procedures are established to provide a consistent approach in managing commonly encountered ACM, ensuring compliance and reducing the potential for exposure. These general procedures, if applicable, should be adopted and expanded upon by the qualified person referenced in Program Responsibilities (section 4B), in a written operation and maintenance plan specific to the campus or site:

i. 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 EH&S. Facilities departments will restrict access to these spaces through warning labels and administrative controls.

ii. ACM floor tiles maintenance work

Facilities departments will monitor ACM floor tiles for wear, using their custodial services to provide a protective coating (wax or sealer), or request use of floor mats to prevent damage that could result in release of asbestos fibers. If tiles are found to be damaged they will be repaired or replaced by other qualified personnel.

iii. Wallboard systems with asbestos-containing joint compound work

Unless sampling demonstrates that the wall system is asbestos free, specific regulatory work practices and training requirements apply. Work on asbestos-containing joint compound in wallboard systems that has been sampled and found to contain asbestos (that is less than one percent asbestos) must be managed using a specific work practice including containment, personal protective equipment (PPE) and formal training.

F. Health Assessments

EH&S will investigate and perform an exposure assessment when notified of an exposure or potential exposure, and develop a report for the management of the organizational unit occupying the space. When requested, affected employees who feel they may have been exposed will be provided with a copy of the investigation report.

EH&S or Medical Centers will also provide employee post exposure evaluation and counseling through their various Employee Health Centers. Employees may be referred by the investigator or by self-referral to the Employee Health Center designated to provide their care.



6. Employee Training

Asbestos training for employees is provided by EH&S in cooperation with Seattle facilities services, or other qualified units. Equivalent training may be provided by facilities departments that manage ACM. Course offerings are outlined on the EH&S website.

- A.** Online asbestos awareness: Hiring managers assign all new employees online asbestos awareness training to familiarize them with the health effects of asbestos exposure, building materials that contain asbestos, and how to recognize and report damaged ACM.
- B.** Two-hour asbestos awareness: Facilities departments' maintenance and custodial employees who work in buildings that contain ACM must take Asbestos Awareness training annually.
- C.** Wallboard systems asbestos training (Less than one percent asbestos material): Those employees whose work impacts wall systems with less than one percent asbestos must take this training as specified by the regulations upon assignment and annually thereafter.

The following courses are available through services outside of the University.

- D.** Building Inspector: Employees performing building inspections to identify ACM through sampling work are required to complete a 24-hour AHERA Building Inspector training provided by a certified outside service, and maintain certification through annual 4-hour refresher courses.
- E.** Class II electrical wiring course (8-hour): Employees impacting electrical wiring that contains asbestos are required to take a Class II asbestos wiring training and maintain this certification through annual training courses.
- F.** Class II Vehicle brake and clutch course (8-hour): Employees conducting brake and clutch repair and maintenance are required to take an 8-hour Class II brake and clutch training course and maintain this certification through annual training courses.

7. Exposure Assessment

A. Personal monitoring / negative exposure assessment (NEA)

Personal monitoring of worker exposure will be conducted by EH&S in a manner sufficient to validate the effectiveness of ACM work procedures and control methods. Personal air sampling will be conducted for employees in accordance with the asbestos regulations. Area air monitoring and dust bulk samples will not be used in lieu of personal air sampling to document potential exposure for employees.

B. Medical surveillance

Personnel who are or may have been exposed to asbestos above the permissible exposure limit (PEL) will be enrolled in the employee health medical surveillance program. This generally applies to employees performing Class I, II, or III work, and employees managing and overseeing asbestos field programs in facilities departments.

8. Construction, Alteration, Maintenance, and Minor Installations

A. Minimizing ACM in new construction

All units that manage or conduct construction will maintain programs to minimize the introduction of ACM in new construction and renovation. Units will develop programs and contracts to avoid introduction of asbestos in these and other materials, where practical.

B. 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 their facilities department or conduct an asbestos survey, including regulated building materials, in the vicinity of planned work using a certified AHERA Building 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.

C. Capital projects

Capital projects that impact ACM must include an AHERA-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.

Project managers may use Seattle Facilities Services and its consultant and contractors for survey, design and abatement work for small capital projects. The asbestos survey will be provided to potential contractors prior to bidding.

D. 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.

E. Minor alterations/installations

Departments performing or contracting minor installations or alterations, including office furnishings, audio visual equipment and other fixtures will work with their facilities department (or building manager for managed properties) to obtain an asbestos survey and avoid impacting ACM. If ACM will be impacted qualified workers must perform the work. A more detailed guideline to assist departments on this subject is here {link}.

9. AHERA Regulated Buildings

Several departments manage primary and secondary schools, as well as receive funding from the local school districts. Rooms associated with these programs follow specific written Asbestos Management Programs. For the Seattle campus, the Facilities Services Regulated Materials Manager serves as the AHERA designated person (DP) and will maintain the AHERA asbestos management plan for Kindergarten through 12th grade programs. The DP or his/her designee will perform periodic surveillance of ACM every 6 months, and re-inspect ACM and update the Management Plan every 3 years according to AHERA. The following programs are managed under AHERA management plans:

- Center on Human Development and Disability
- Ida B. Wells high school program in Chemistry Library building
- Robinson Center in Guthrie Annex 2

The AHERA-designated school principals/program managers or his/her designee for each program will ensure that workers, building occupants and legal guardians are informed at

least once per school year regarding inspections and planned abatement work. EH&S and the DP will provide support to administrators in making these notifications.

Seattle facilities services will maintain asbestos labeling, and ensure that employees and facilities services' contractors are informed about the presence of asbestos the buildings listed above. Departments contracting construction and alteration work will ensure asbestos contractors or consultants are AHERA certified when working in AHERA regulated buildings.

EH&S, in its oversight role, will ensure that periodic surveillance is completed, that the management plan is updated and notifications are made in accordance with the federal, state and local regulations.

10. Real Estate

A. Leasing space from private-sector owners

UW Real Estate (UWRE) represents the UW in negotiations with third-party landlords who lease space to UW. UW leases typically include safety provisions that the landlord must adhere to in order to protect the health and safety of UW staff occupying leased spaces. UWRE should negotiate leases that:

- 1) Require landlords to comply with federal, state and local asbestos regulations (including other hazardous or regulated building materials regulations),
- 2) Require notification to the University of any disturbance of these materials,
- 3) Require the landlord to provide an assessment of the presence, location and quantity of asbestos or suspect ACM upon request, to any maintenance personnel and contractors prior to commencing construction and alteration (renovation and demolition) work.

B. University facilities leased/rented to public agencies or non-University tenants

For University owned properties leased to non-University tenants, UWRE will coordinate with FS or the Capital Projects Office (CPO) to conduct an asbestos survey, when required, prior to performing any building alterations or construction. If the space is managed by a third-party property manager, the property manager will engage FS, or hire a third-party asbestos consultant for asbestos surveys.

UWRE or their property manager is required to provide an assessment of the presence, location and quantity of ACM or suspect ACM upon request, to any maintenance personnel, and to contractors prior to commencing work.

UWRE will include language in tenant contracts to require tenants to work with UWRE or property management to ensure ACM and other regulated building materials are not inadvertently impacted for work they are authorized to perform including minor work such as installing office cubicles and fixtures.

11. ACM Records Management

A. Records and archives

Facilities departments, CPO and other units performing Asbestos Class I, II or III work will retain inspection, sampling, and abatement records in a record management system. All units will provide inspection, sampling and other pertinent records to their facilities or other designated department, or facilities manager for non-UW buildings, so that the records are available for reference for future maintenance, alteration and construction work, hazard evaluation and other business needs.

Upon demolition or renovation, facilities departments will confer with University Records Management Services to coordinate the storage of paper and electronic records for the required retention period. If a UW building is sold, asbestos survey records shall be transferred to the successive building/facility owner while retaining a copy in accordance with University retention schedules and University Records Management Services requirements.

Employee exposure and area air monitoring data will be retained for the minimum required time of employment duration, plus thirty years. Training records will be retained for at least one year past the end of employment.

B. Access/use authorization

Facilities departments will make asbestos surveys and construction documents identifying asbestos locations available to qualified employees and consultants.

EH&S will make available to affected employees all personal and area exposure monitoring upon request as required by applicable federal, state and local regulations.

Employee Health departments will provide employees access to their personal medical records and copies as required by law.

12. Agency Liaison and Reporting

EH&S is the liaison to federal, state, and local regulatory compliance inspectors; EH&S will be notified of alleged violations and other complaints; and meets with regulators to facilitate investigations. Other units will refer regulatory agencies to EH&S.