



Asbestos Operations and Maintenance Plan SOP

The purpose of this **Asbestos Operations and Maintenance Plan SOP** is to ensure that all asbestos containing materials (ACM) are properly managed in-place; and ensure the safety of building occupants, visitors and maintenance/custodial employees by:

1. The survey, inventory and periodic reassessment of all suspect and known ACM. The purpose of the reassessment is to monitor the condition of ACM to ensure that ACM is maintained in an undamaged (non-hazardous) condition.
2. Ensure that asbestos fibers that have been previously released are properly cleaned-up.
3. Train individuals who may encounter ACM during their normal work activities.
4. Develop work practices and procedures that will allow renovation, construction or emergency maintenance to be performed safely without exposing employees, building occupants, or members of the public to airborne asbestos fibers.

This plan is designed to comply with applicable state and federal regulations pertaining to asbestos and shall remain in force until all ACM has been removed from all University properties. In addition, it references work practices and procedures that the University has adopted in accordance with the regulations and standards listed below for the proper management of asbestos in University buildings:

- 29 CFR 1926.1101, Asbestos Standard for the Construction Industry;
- 40 CFR 61, EPA Asbestos NESHAP;
- 40 CFR 763, EPA AHERA;
- DGS Asbestos Survey Standard for Buildings to be Renovated or Demolished;
- DGS; Aggressive Air Sampling Standards;
- Title 54.1, Chapter 5, Virginia Asbestos Licensing Program Rules and Regulations;
- VR 672-20-10, Virginia Solid Waste Management Regulations;
- 40 CFR 240, Guidelines for the Land Disposal of Solid Waste;
- 40 CFR 257, Criteria for Classification of Solid Waste Disposal Facilities and Practices; and
- 49 CFR 171, DOT Hazardous Materials Regulations.

The descriptions and protocols for staff working near or with asbestos or asbestos containing material (ACM) are as follows:

Version	Date	Comments
1	July 2023	Creation of Asbestos Operations and Maintenance Plan
2		
3		
4		



Asbestos Operations and Maintenance Plan SOP

TABLE OF CONTENTS	PAGE NUMBER
Definitions	2
Responsibilities.....	2
Procedures.....	3
Related Documents.....	8
Forms	9

DEFINITIONS

ACM: Asbestos containing material

AHERA: Asbestos Hazard Emergency Response Act

ASO: Asbestos Safety Officer

EHS&RM: Environmental Health, Safety and Risk Management

EPA: Environmental Protection Agency

VOSH: Virginia Occupational Safety and Health Division of the Virginia Department of Labor and Industry

RESPONSIBILITIES

Facilities Management Construction and Capital Planning Division the and the Environmental, Health, Safety & Risk Management (EHSRM) department shall share responsibility for administrative decisions regarding asbestos control and abatement at the University for Operations conducted by both in-house personnel and by contractors. They shall work closely with the University's Work Management Center, architects, engineers, project managers, staff and consultants on maintenance, renovation and demolition activities that have the potential for disturbing asbestos. They shall assist in the development of bid documents and contractor selections for asbestos abatement projects. The Construction Safety Manager is the designated Asbestos Safety Officer (ASO).

Facilities Management (FM) - The Coordinator shall act as liaison between the contractor and the Environmental Health and Safety department; and shall be responsible for in-house asbestos activities including management of asbestos workers, identification of projects involving asbestos, notification procedures, building inspections and surveillance, and any other responsibilities outlined in this Plan. The Coordinator shall be certified as both an Asbestos Supervisor and Asbestos Building Inspector/Manager Planner.



Asbestos Operations and Maintenance Plan SOP

Environmental Health, Safety, and Risk Management Office (EHSRM) - The ASO shall provide consultative and technical assistance regarding asbestos disturbance activities. The ASO shall provide quality control and quality assurance for the asbestos program through monitoring of the different program elements. The ASO shall serve as the University liaison with regulatory agencies and serve as the clearinghouse for the dissemination of regulatory and University requirements and new information to employees involved in asbestos related activities. The ASO and/or designee shall be certified as both an Asbestos Supervisor and Asbestos Building Inspector/Manager Planner. The EHSRM Office shall assist in developing risk management and insurance strategies to be utilized in the preparation of specifications, the procurement of asbestos services and the qualifications of asbestos contractors. EHS & RM will provide consultative assistance in all administrative and technical areas as requested.

Periodic Surveillance - All accessible functional spaces with asbestos containing material (ACM) or presumed asbestos containing material (PACM) shall be visually inspected annually. The inspection shall be conducted by the Asbestos Safety Officer. The current condition of the material shall be evaluated relative to its condition at previous surveys. If there is deterioration in the condition of the material, it shall be documented. The ASO shall prepare an Annual Asbestos Management Report as record of the inspection and submit the report to the Director of EHSRM for review as well retention. EHS&RM shall conduct an inspection of any deteriorated material identified in the report and shall make recommendations for corrective action.

Inspections/Sampling - Only University property built after 1985 shall be exempted from this section of the plan based on date of construction or renovation; otherwise written certification that the building materials are asbestos-free must be provided. All suspect materials shall be inspected prior to being disturbed. Inspections shall be conducted using random sampling schemes and multiple sampling as described in AHERA. Samples shall be obtained using accepted sampling techniques to minimize fiber release to the environment. Only the ASO or qualified contractor shall take bulk samples. Samples shall be analyzed by a licensed asbestos analytical laboratory.

Where contractors are used to perform inspections, personnel requirements and inspection procedures shall conform to current asbestos regulations. Additionally, the contractor shall submit a report to the ASO and/or EHS&RM, which details the activities conducted as part of the inspection, lab results, and location of samples obtained and delineation of identified ACM on floor plans.

The ASO shall use the information obtained from the sampling and analysis to update the University's Asbestos Log.



Asbestos Operations and Maintenance Plan SOP

Work Requests - The ASO shall review asbestos results prior to issuing any work orders in which ACM or PACM may be disturbed, such as work on ceilings, floors, laboratory hood systems, roofs, thermal systems in mechanical spaces, etc. EHSRM shall contact the ASO when the work involves disturbing ACM or PACM, when there is potential for disturbing such material, or if the work is questionable. The ASO shall review all work orders of this nature. If there is no asbestos hazard associated with the work, the ASO shall sign-off on the work order and return it to Work Management. If there is an asbestos hazard associated with the work, the ASO shall consult with the EHSRM and other personnel as necessary to develop an appropriate work plan.

PROCEDURES

General Safety Procedures for Housekeepers

Housekeepers and maintenance workers may come into close proximity to ACM during the performance of their job duties. During routine activities exposure to custodians is very low and does not pose a significant risk for the development of asbestos related disease.

If gradual deterioration or damage to ACM has occurred, asbestos-containing dust or debris could be present. Special cleaning practices should be used to collect residual asbestos dust. Routinely cleaning floors using wet methods is an example of one such practice. Custodial and maintenance workers should also identify and report areas that are in need of special cleaning or repair. 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.

Workers involved in cleaning up small quantities of asbestos dust must receive training in asbestos awareness. The following practices should be used:

1. Always use wet cleaning or wet-wiping practices to pick up asbestos fibers. Dry sweeping or dusting can result in asbestos fibers being re-suspended and should never be used.
2. Always use wet cleaning or wet-wiping practices to pick up asbestos fibers. Dry sweeping or dusting can result in asbestos fibers being re-suspended and should never be used.
3. The use of special vacuum cleaners known as HEPA vacuums may be preferable to wet cleaning in certain situations. Never use a regular vacuum cleaner to clean up asbestos dust. Workers should wear proper PPE when changing HEPA filters. Waste must be disposed of as asbestos waste.
4. If ACM has been released onto a carpet it may be impossible to adequately clean the carpeted area. Consult with supervision prior to cleaning. Steam cleaning and HEPA vacuuming can be used. Proper respiratory protection may be necessary. This type of cleaning should be done after hours.
5. In the presence of asbestos dust above the PEL, the use of a respirator approved for asbestos work is required. A dust mask is not acceptable because asbestos fibers will pass through it. The use of respirators must be approved by the EHSRM.
6. Asbestos waste, including all clean up materials, must be sealed in a double 6-mil plastic asbestos bag and properly labeled before being disposed in an EPA approved landfill.

Asbestos Operations and Maintenance Plan SOP

7. Report any damage, change in condition, or loose asbestos containing material to EHS&R or a supervisor.

The mere presence of asbestos itself does not create a health hazard unless the material is disturbed and releases fibers to the atmosphere. Protect yourself and others by being aware of where asbestos is located, the dangers involved, and using common sense when working around ACM.

Asbestos Floor Tiles

The following procedures should be used when caring for asbestos containing floor tiles:

1. Sanding of asbestos containing floor tiles is prohibited.
2. Stripping of finishes shall be conducted using wet methods and low abrasion pads at speeds lower than 300 rpm. Do not perform dry stripping or over strip the floor.
3. When high speed buffing is done, ensure that there is adequate sealer and finish on the floor. Always keep the machine moving.
4. Do not remove or attempt to repair loose floor tiles. Improperly removed asbestos containing floor tiles could result in the release of high levels of asbestos.
5. Report loose floor tiles to supervision immediately. Avoid running the machine over loose tiles.

Asbestos Fiber Releases

Special procedures are needed to reduce the spread of asbestos fibers after a release of fibers has occurred, such as the partial collapse of an ACM ceiling or wall. Depending on the severity of the release, an asbestos contractor may be needed to conduct the cleanup operation. If fibers are released through an incident, personnel should take the following steps to reduce asbestos exposure to occupants until trained asbestos personnel arrive:

1. Prevent access to the contaminated area if possible
2. Shut and lock doors
3. Report the damage ACM to EHS&RM or a supervisor
4. Remain available at a safe location to direct asbestos personnel to the site.
5. Do not attempt to clean up a release.

Minor Releases

On occasion potentially large releases of asbestos fibers will occur. When this happens, supervision should be notified immediately. Supervision will notify the Asbestos Manager and the Safety Manager. They will conduct a joint evaluation of the release and determine what actions should be taken. A minor release episode is defined as three square or linear feet or less of friable ACM. A licensed asbestos contractor will be called to clean up releases greater than three square or linear feet. If the release is minor specially trained in-house personnel may clean-up the release using the following procedures:

1. Secure the area and post signs to prevent unauthorized personnel from entering the area.
2. If fibers could enter the HVAC system the unit should be shut down and sealed.
3. Put on a half or full face respirator with HEPA cartridges.
4. Put on a Tyvek suit and gloves.
5. Clean up loose asbestos with a HEPA vacuum, do not use a regular vacuum.



Asbestos Operations and Maintenance Plan SOP

6. If a HEPA vacuum is not available, wet down the area with amended water (water in which a few drops of liquid laundry detergent have been added).
7. Place all trash into two 6-mil plastic labeled bags.
8. Wipe the area clean.
9. Properly dispose of waste.

Training

EHS&RM is responsible for determining the level of training required by employees. EHS&RM shall coordinate initial and refresher training for employees. Funding for training is the responsibility of the affected department. Currently Norfolk State University employees require Awareness training. Contractor personnel must show proof of Class I and Class II training and certification.

- Awareness and Class IV Operations - This is the most basic level of training, and is required for custodial and maintenance employees, who come in contact with, but do not disturb ACM in the course of their work. Initial training is 2 hours and annual refresher training is 1 hour.
- Class III Operations - This training is required for employees who disturb or remove ACM in the conduct of maintenance activities. Initial training is 16 hours and annual refresher training is 4 hours.
- Class I and Class II Operations - This training is required for employees who remove ACM, including thermal systems insulation (TSI), surfacing material, wallboard, floor coverings and sheeting, roofing and siding, and construction mastics. Training is 32 hours for worker level and 40 hours for competent person level. Annual refresher training is 8 hours.

Accreditation

Employees required to be accredited asbestos professionals shall maintain current accreditation through EPA accredited training programs.

Medical Surveillance

The EHS&RM contracts with an Occupational Health provider is used for medical surveillance services. Employees who engage in Class I, II or III work or are exposed at or above the permissible exposure limit for a combined 30 days or more per year shall participate in the surveillance program. Additionally, these employees shall participate in University sponsored Respiratory Protection and Personal Protective Equipment training. EHS&RM shall identify employees requiring medical surveillance and fit testing.

Controls

The following asbestos control mechanisms may be used by the University:

Repair - Repair activities may be used for damaged ACM that meets the following criteria:

- Damage is localized;
- Area of damage is less than 10% of the continuous area of ACM in a functional space;

Asbestos Operations and Maintenance Plan SOP

- Area of damage is less than 10 ft. or 10 ft²; and
- Volume of debris generated by the activity is less than 3 ft. or 3 ft².

Encapsulation - Encapsulation is the application of a sealant over the surface of the ACM to prevent the release of asbestos fibers.

Enclosure - An enclosure is the construction or installation over or around ACM, which conceals, contains, and renders it inaccessible.

Removal

Removal is the preferred control option when disturbances cannot be avoided. The following are procedures for removal activities:

In-house Removal Projects

1. The ASO shall review and approve all in-house removal projects.
2. The ASO shall obtain an asbestos abatement permit through the Virginia Department of Labor and Industry prior to conducting removal of TSI or surfacing material that exceeds 10 ft. or 10 ft².
3. Asbestos removal shall be done in full compliance with applicable EPA and VOSH Asbestos Regulations.
4. The ASO shall oversee asbestos contractors' performance of all required abatement activities, including air monitoring, site isolation, removal, decontamination, etc.
5. Modification to or shutting down of HVAC systems shall be done in accordance with the Facilities Management Procedure Manual and shall be coordinated with Facilities Management HVAC personnel.
6. Waste shall be properly packaged and transported by contractors to a landfill approved for disposal.
7. Contractors shall make arrangements for disposal of the waste.

Contracted Removal Projects

1. A qualified and licensed contractor shall be selected to prepare the asbestos abatement specifications for the project and to perform waste removal. The contractor may be selected from a state contract or may be selected through a bidding process.
2. A contracted asbestos project monitor shall be selected to oversee and/or perform all asbestos monitoring activities. The project monitor may be selected from state contract or may be selected through a bidding process.
3. Contractors shall perform all work in full compliance with applicable asbestos regulations.
4. Contractors shall perform all activities included in the scope of work.
5. Abatement contractor shall properly package, label and dispose of waste at a licensed asbestos disposal facility.
6. Any modification to or shutting down of HVAC systems shall be done in accordance with the Facilities Management Procedure Manual and shall be coordinated with Facilities Management ASO and HVAC personnel.



Asbestos Operations and Maintenance Plan SOP

Notification and Labeling Procedures

The ASO and abatement contractors shall notify the Virginia Department of Labor and Industry 20 days in advance of conducting removals exceeding 10 ft. or 10 ft².

Every effort shall be made to notify in advance those employees who work in or adjacent to areas where asbestos activities will take place. For in-house abatement, the ASO shall send a written notice to the affected employees prior to the conduct of abatement activities. For contracted abatement, the ASO shall send a written notice to the building contact(s), EHS&RM prior to the conduct of abatement activities. The building contacts shall convey the information to the affected employees. The Project Manager shall inform other contractors who may be working in the area of the scope of activities and their impact. Notifications shall be written and shall include information regarding the work to be performed and the measures employed to minimize the potential for fiber release. The ASO shall keep records of all written notifications. The ASO will coordinate, at the request of a department head, notification to building occupants in an educational seminar format.

Labeling in the form of posted warning signs or notices shall be used in areas where friable ACM is present, such as boiler rooms, and at entrances and around the perimeter of repair or renovation activities involving ACM.

Emergency Response

Any water or physical damage to ACM or PACM or any evidence of a possible asbestos fiber release shall be reported immediately to the ASO. The ASO shall evaluate the emergency and take appropriate corrective action. A contracted Asbestos Project Designer shall be used to design and conduct response actions for major fiber release episodes. A major fiber release episode is a release of friable ACM equal to or greater than 3 ft. or 3 ft². The ASO shall document all fiber release episodes.

Recordkeeping

The ASO shall maintain records of all asbestos sampling and laboratory analyses. The records shall be kept in a Master Asbestos Log; EHS&RM will maintain backup copy. The ASO and EHS&RM shall also maintain all training records, all exposure monitoring records from in-house abatement activities, waste manifests, emergency response records, and building surveillance and inspection records.

The EHS&RM shall maintain records associated with related safety programs, such as Respiratory Protection and Personal Protective Equipment. Medical Surveillance records shall be maintained by the University's Occupational Health Care Provider. The physician's written opinion shall be maintained by the EHS&RM.

The ASO shall, upon completion of contracted asbestos abatement activities, take possession of records, strip tapes, air monitoring readings and other documentation from the asbestos abatement contractor and asbestos project monitor. These records shall be kept with the project records.



Asbestos Operations and Maintenance Plan SOP

Program Evaluation

The ASO and/or designee shall, on an annual basis, meet with EHSRM and/or designee to evaluate the Asbestos Program for compliance with applicable standards and regulations. The ASO shall prepare a written report, which outlines findings from the evaluation and any recommendation for corrective action.

RELATED DOCUMENTS

29CFR 1926.1101, Asbestos Standard for the Construction Industry;
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926.1101>

40 CFR 61, EPA Asbestos NESHAP;
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-61/subpart-M>

40 CFR 763, EPA AHERA:
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-R/part-763?toc=1>

DGS Asbestos Survey Standard for Buildings to be Renovated or Demolished;
<https://law.lis.virginia.gov/vacode/title36/chapter6/section36-99.7/>

DGS; Aggressive Air Sampling Standards; 1VAC30-110-20-80
<https://law.lis.virginia.gov/admincode/title1/agency30/chapter110/section20/>
<https://law.lis.virginia.gov/admincode/title1/agency30/chapter110/section30/>
<https://law.lis.virginia.gov/admincode/title1/agency30/chapter110/section40/>
<https://law.lis.virginia.gov/admincode/title1/agency30/chapter110/section50/>
<https://law.lis.virginia.gov/admincode/title1/agency30/chapter110/section60/>
<https://law.lis.virginia.gov/admincode/title1/agency30/chapter110/section70/>
<https://law.lis.virginia.gov/admincode/title1/agency30/chapter110/section80/>

Title 54.1, Chapter 5, Virginia Asbestos Licensing Program Rules and Regulations;
<https://law.lis.virginia.gov/vacode/title54.1/chapter5/>

VR 672-20-10, Virginia Solid Waste Management Regulations;
<https://law.lis.virginia.gov/admincode/title9/agency20/chapter81/>

40 CFR 2, Part 268, Guidelines for the Land Disposal of Solid Waste;
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-268?toc=1>

40 CFR 257, Criteria for Classification of Solid Waste Disposal Facilities and Practices;
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-257>

49 CFR 171-180, DOT Hazardous Materials Regulations



Asbestos Operations and Maintenance Plan SOP

<https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-C/part-171>

FORMS



Asbestos Operations and Maintenance Plan SOP

Style F25R LABELMASTER (800) 621-5808 www.labelmaster.com

Please print or type. Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number 012328401FLE		
5. Generator's Name and Mailing Address			Generator's Site Address (if different than mailing address)				
Generator's Phone			U.S. EPA ID Number				
6. Transporter 1 Company Name			U.S. EPA ID Number				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address			U.S. EPA ID Number				
Facility's Phone							
9a. HSL	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol	13. Waste Codes	
		No.	Type				
1.							
2.							
3.							
4.							
14. Special Handling Instructions and Additional Information							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name			Signature		Month	Day	Year
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit _____ Date leaving U.S. _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name			Signature		Month	Day	Year
Transporter 2 Printed/Typed Name			Signature		Month	Day	Year
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
18b. Alternate Facility (or Generator)			Manifest Reference Number		U.S. EPA ID Number		
Facility's Phone							
18c. Signature of Alternate Facility (or Generator)			Signature		Month	Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1.	2.	3.	4.				
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a.							
Printed/Typed Name			Signature		Month	Day	Year

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM