

The logo is contained within a rounded rectangular border. At the top, the word "ASBESTOS" is written in white, bold, sans-serif capital letters inside a red oval. Below this, the words "OPERATIONS", "&", "MAINTENANCE", and "PROGRAM" are stacked vertically in large, bold, black, sans-serif capital letters.

ASBESTOS
OPERATIONS
&
MAINTENANCE
PROGRAM

**Procedures and Guidelines for
Texas A&M University-Kingsville
Employees**



ENVIRONMENTAL HEALTH & SAFETY OFFICE
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TABLE OF CONTENTS

INTRODUCTION.....	2
HISTORY	2
CATEGORIES OF ACM.....	3
OPERATIONS AND MAINTENANCE PROCEDURES INVOLVING ACM	3
RESTRICTIONS.....	4
O&M GENERAL REQUIREMENTS.....	4
WORK PRACTICES	5
EMPLOYEE TRAINING & LICENSING	6
AWARENESS TRAINING	7
WORKER TRAINING	8
WORKER LICENSING	8
O&M RESTRICTED LICENSE	9
RESPIRATORY PROTECTION AND PROTECTIVE EQUIPMENT.....	9
MEDICAL EVALUATION.....	9
RESPIRATORY PROTECTION	9
AIR MONITORING	10
PROTECTIVE EQUIPMENT.....	10
ASBESTOS NOTIFICATION PROCEDURES	12
GENERAL NOTIFICATION PROCEDURES	12
ASBESTOS REMOVAL PROCEDURES.....	12
GLOVE BAG PROCEDURE FOR SSSD WORK	12
ASBESTOS MAINTENANCE PROGRAM	14
DEFINITIONS	15

1.0 INTRODUCTION

This document describes Texas A&M University-Kingsville's procedures for managing asbestos and asbestos-containing material (ACM).

The mere presence of ACM in university buildings does not in itself constitute a health risk. However, asbestos is a known human carcinogen and hazards exist when ACM is disturbed or damaged (sawing, drilling, cutting) thus creating airborne fibers. Activities having the potential of generating airborne fibers must be performed properly in order to reduce the amount of airborne fibers.

The purpose of this document is to describe the university's Asbestos Operation and Maintenance Program. The goal of this Program is as follows:

- To prevent exposure to the hazards associated with asbestos and asbestos-containing material.
- To implement proper maintenance and general operation procedures to be followed while working with or around asbestos and asbestos-containing material.
- To promote awareness of the hazards of asbestos and asbestos-containing material through employee training.
- To establish and maintain an Asbestos/ACM Inventory of University facilities.

2.0 HISTORY

Asbestos has been known to exist for several thousand years. The word "asbestos" evolves from a Greek word meaning inextinguishable or incombustible. From the time of the Greeks and Romans in the first century until its reemergence in the late 1800s, asbestos received little attention or use. Only in the last 100 years has the material come into wide usage. Asbestos is a naturally occurring mineral and is mined mainly in Canada, Russia and South Africa with limited mining in the United States.

Asbestos has been used in literally thousands of products. The term asbestos-containing material (ACM) is used to refer to these types of products. Asbestos became widely used because it is plentiful, readily available, inexpensive to refine, and because of its physical properties. Asbestos is fire resistant, has a high tensile strength, is an excellent electrical insulator and is impervious to chemicals.

Asbestos minerals are divided into two groups – **serpentine and amphibole**. The serpentine minerals have a sheet or layered crystalline structure whereas the amphibole minerals have a chain-like crystalline structure. There are approximately 30-40 different types of asbestos minerals, however only three types are a popular building material.

- Chrysotile is known as the “white asbestos” and is the only asbestos mineral in the serpentine group. Chrysotile is the most commonly used type of asbestos and accounts for 95% of the asbestos found in buildings.
- Amosite is known as the “brown asbestos” and is found in the amphibole group. Amosite is the second most common asbestos to be found in buildings.
- Crocidolite is known as the “blue asbestos” and is also an amphibole. Crocidolite was used as a high temperature insulating material.

3.0 CATEGORIES OF ACM

The U.S. Environmental Protection Agency (EPA) distinguishes between friable and non-friable ACM. Friable ACM contains more than 1% asbestos and can be “crumbled, pulverized, or reduced to a powder by hand pressure when dry.” Friable ACM releases fibers into the air more readily than non-friable ACM.

The following three categories of ACM as identified by the EPA may be present in university buildings.

- Surfacing Material - ACM sprayed or troweled onto surfaces (walls, ceilings, structural beams) for acoustical, decorative, or fireproofing purposes. This includes plaster and fireproofing insulation.
- Thermal System Insulation (TSI) - ACM used to inhibit heat transfer or prevent condensation on pipes, boilers, tanks, ducts and other components of hot and cold water systems or HVAC systems. This includes pipe lagging, pipe wrap, blanket insulation and other insulating material.
- Miscellaneous Materials – Other, largely non-friable ACM products such as floor tile, ceiling tile, roofing felt, and outdoor siding material.

The materials associated with Surfacing Material and TSI are of particular concern because they easily become friable. Miscellaneous Materials are non-friable, however they may become friable if ground, cut, sanded, or otherwise disturbed.

4.0 OPERATIONS AND MAINTENANCE PROCEDURES INVOLVING ACM

All University employees who are involved in facility operations, maintenance, or repairs in a University building shall follow these guidelines when the possibility of disturbing ACM exists. It is the University’s intent to obtain an asbestos survey of the area prior to the scheduled repairs or renovations. However, if the asbestos survey is not available prior to the repairs or renovations, the area will be treated as Presumed Asbestos

Containing Material (PACM) and the repairs or renovations will be completed in accordance to state and federal regulations.

4.1 Restrictions.

O&M activities involving asbestos-containing building materials (ACBM) are restricted to small-scale, short-duration activities, according to 40 CFR Part 763, Subpart E, Appendix B, titled, "Work Practices and Engineering Controls for Small-Scale, Short-Durations Operations Maintenance and Repair (O&M) Activities Involving ACM". The University's Asbestos O&M licensees shall not engage in any activity for which the primary purpose is asbestos abatement.

What Are Small-Scale, Short Duration Asbestos Activities?

Small-scale, short duration activities (SSSD) are tasks such as, but not limited to:

- Removal of asbestos-containing insulation on pipes.
- Removal of small quantities of asbestos-containing insulation on beams or above ceilings.
- Replacement of an asbestos-containing gasket on a valve.
- Installation or removal of a small section of drywall.
- Installation of electrical conduits through or proximate to asbestos-containing materials.

SSSD can be further defined by the following considerations:

- Removal of small quantities of asbestos-containing materials only if required in the performance of another maintenance activity not intended as asbestos abatement.
- Removal of asbestos-containing thermal system insulation, not to exceed amounts greater than those which can be contained in a single glove bag.
- Minor repairs to damaged thermal system insulation which do not require removal.
- Repairs to a piece of asbestos-containing wall board.
- Repairs, involving encapsulation, enclosure or removal, to small amounts of friable asbestos-containing materials, only if required in the performance of emergency or routine maintenance activities and not intended solely as asbestos abatement. Such work may not exceed amounts greater than those which can be contained in a single prefabricated mini-enclosure. Such an enclosure shall conform spatially and geometrically to the localized work area, in order to perform its intended containment function.

4.2 O&M General Requirements

1. Personnel exposures for asbestos related work shall be maintained below the PEL through engineering controls and work practices. Areas

where ACMs are present, but involve no work, shall be kept at or below 0.01 f/cc.

2. As required by federal and state law, only TDH licensed contractors shall be utilized for work involving any ACBM.
3. Employees shall not eat, drink, smoke, chew gum or tobacco in any work area in which there is a potential for asbestos exposure.
4. Where feasible in process applications and during all demolition, removal and spill clean up jobs, ACBM shall be moistened in order to prevent the emission of airborne fibers.

Note: High-speed abrasive saws are prohibited

5. A medical surveillance program for all employees who may be exposed to airborne concentrations of asbestos fibers at or above the action level shall be maintained in accordance with TDH requirements.
6. Records documenting asbestos monitoring, medical surveillance, and demolition and removal jobs shall be kept permanently.
7. Employees are required by the TDH to have a yearly physical.
8. University licensed workers cannot perform asbestos related operation and maintenance at any other properties since the O&M restricted license only applies to TAMUK properties.

4.3 Work practices

- A. The University will furnish and require the use of respirators, protective clothing, high-efficiency particulate air filter (HEPA) vacuum machines, glove bags, and other necessary equipment for all who perform O&M activities.
- B. Only licensed persons, responding emergency personnel (police, fire, EMS, etc.), specialists required for assistance as determined by the consultant, or appropriate governmental inspectors are allowed to enter the containment, decontamination, bag-out, and temporary storage areas.
- C. The O&M Supervisor shall restrict entry into the area by persons other than those necessary to perform the maintenance project, either by physically isolating the area or by scheduling.

- D. The O&M Supervisor shall install a mini-containment for containment of asbestos fibers for drilling and cutting procedures, or a glove bag technique may be used for removal or repair of ACBM on pipes or ducts.
- E. If the O&M Project involves the clean-up of fallen or dislodged ACBM i.e., ceiling tile, the O&M Supervisor shall ensure that the ACBM is thoroughly saturated using proper wet methods.
- F. ACBM exposed as a result of spot repairs shall be suitably enclosed or encapsulated. Repair the area of damaged ACM with materials such as asbestos-free spackling, plaster, cement, or insulation, or seal with latex paint or an approved encapsulant.
- G. HEPA vacuuming or wet cleaning shall be used to decontaminate work areas and equipment until there is no visible debris.
- H. Asbestos debris shall be double bagged by placing asbestos-containing waste material into approved asbestos bags. The outer asbestos bag shall be closed and taped in a "goose-neck" fashion to prevent water leakage. The asbestos bags shall be properly labeled and placed in the University's Hazardous Waste storage area. Disposal shall be in accordance with TAC Title 25 §295.60 and 40 CFR Part 61, Subpart M.
- I. Visual inspections shall be performed before removing any mini-containment.
- J. The O&M Supervisor shall ensure that a copy of this manual is on site during all O&M operations.

5.0 EMPLOYEE TRAINING & LICENSING

The University's O&M Program requires a range of employee training from a 2-hour awareness training session to a 40-hour supervisory training session. The following guidelines discuss the type of training employees will receive under the O&M Program.

5.1 The TDH required training programs include the following topics:

- A. Methods of recognizing asbestos.
- B. A review of the health effects associated with asbestos exposure.
- C. The relationship between smoking and asbestos exposure in producing cancer. Restrictions on eating, drinking, chewing gum, smoking, etc. shall be covered.
- D. The quantity, location, manner of use, release and storage of asbestos and the specific nature of operations that could result in exposure to asbestos.

- E. The engineering controls and approved operating procedures associated with each job assignment.
- F. The specific operating procedure implemented to protect employees from exposure to asbestos including work practices, housekeeping, hygiene practices, emergency and cleanup procedures and required personal protective equipment.
- G. The purpose, use and limitations of respirators and protective clothing.
- H. The purpose and description of the medical surveillance program required by the University and government regulations.
- I. A review of the University's regulations governing the handling and use of ACMs, to include OSHA, EPA, and TDH regulations governing asbestos. A copy of the regulations shall be provided upon request to each employee.
- J. Respiratory protection training shall be conducted annually.
- K. The requirement for posting signs and affixing labels and the meaning of the required legends for such signs.
- L. TDH licensed trainers will be used to fulfill the requirements of this training.

5.2 Awareness Training

The local education agency shall ensure, prior to the implementation of the O&M provisions of the management plan, that all members of its maintenance and custodial staff (custodians, electricians, heating/air conditioning engineers, plumbers, etc.) who may work in a building that contains ACBM receive awareness training of at least 2 hours, whether or not they are required to work with ACBM. New custodial and maintenance employees should be trained within 60 days after commencement of employment. Training shall include, but not be limited to:

- Information regarding asbestos and its various uses and forms.
- Information on the health effects associated with asbestos exposure.
- Locations of ACBM identified throughout each school building in which they work.
- Recognition of damage, deterioration, and delamination of ACBM.
- The EHS Office (ext: 2645) is to be contacted if any employee identifies exposed ACBM.

5.3 Worker Training

Annual training shall be provided for all employees who may be exposed to any measurable airborne concentration of asbestos fibers exceeding the PEL. A 32-hour Asbestos Worker Training course will be provided to Texas A&M University-Kingsville employees who are required to work in areas containing ACBM. A TAMUK employee that works with or in the following areas (not limited to the following list) requires worker training as defined in TDH regulations:

- insulated piping
- Ceiling or wall tiles
- Air plenum
- Floor tiles or mastic
- Lab tops
- Exterior roofing
- Exterior roofing mastic
- Exterior waterproofing
- Wall joint compound jobs; Spray on material
- Fire doors with core
- Doors with insulation
- Asbestos jacketed lighting
- HVAC mastic
- HVAC insulated ducts
- HVAC black mastic connectors

Employees selected to serve as an O&M Asbestos Supervisor will receive an additional 8 hours of supervisory training. The employee will be required to successfully pass a TDH administered exam in order to become an O&M Asbestos Supervisor as defined in TDH regulations. An asbestos worker must work under the supervision of an asbestos supervisor.

5.4 Worker Licensing

To perform work at Texas A&M University-Kingsville an asbestos worker or supervisor must become licensed with the State of Texas. This is required since the University is a public access building. After completing the Asbestos Worker training requirements the EHS Office will submit the employee's documentation to the TDH and the employee will receive his or her Asbestos Worker registration.

After the O&M Asbestos Supervisor has successfully pass the TDH exam and has fulfilled all requirements, the EHS Office will submit the employee's documentation to the TDH and the employee will receive his or her O&M Asbestos Supervisor's license.

5.5 Texas A&M University-Kingsville O&M Restricted License

All TAMUK employees who work as asbestos workers or asbestos supervisors are limited to the type of work they can perform, since they are under the O&M Restricted TDH Company License. This means TAMUK employees can only perform O&M procedures if a member of university management holds the O&M Restricted TDH Company License.

The Director of Environmental, Health and Safety will hold the Texas A&M University-Kingsville O&M Restricted TDH Company License. If this person leaves the University or the license is not renewed, all asbestos O&M procedures performed by university licensed workers and the supervisor would have to cease until a new person is trained for that position and applies for the license

6.0 RESPIRATORY PROTECTION AND PROTECTIVE EQUIPMENT

6.1 Medical Evaluation

Employees who may be required to wear respiratory protection in atmospheres where asbestos contaminants exceed the Permissible Exposure Limit (PEL) of 0.1 f/cc as set by OSHA must undergo an initial medical evaluation and annually thereafter. During the medical evaluation the Occupational Physician makes a determination as to whether or not an employee can wear the required respirator without physical or psychological risk. Based on the overall health of the individual and special medical tests (pulmonary function studies, EKG, etc.) as appropriate, the examining physician determines whether or not the individual will be restricted from wearing respiratory protective equipment.

Specific medical tests and procedures will be determined by the Occupational Health Physician and will be in accordance with OSHA medical surveillance requirements and/or NIOSH recommendations.

6.2 Respiratory Protection

The following respiratory protection requirements are to be followed while conducting operations involving ACBM. Refer to the University's Respiratory Protection Program for greater details involving respiratory protection.

- A. Respiratory protection shall be used when exposure exceeds the permissible exposure limit of 0.1 f/cc and during all glove bag removal jobs and/or during cleanup and disposal.

B. Respiratory protection shall be used in accordance with the following table:

Airborne Asbestos Concentration	Required Respirator
Not in excess of 1 f/cc	Half face air purifying respirator with high efficiency filters (P 100)
Not in excess of 10 f/cc	Any powered-air purifying respirator (PAPR) with high efficiency filters or any continuous flow supplied air respirator
Not in excess of 100 f/cc	Full face pressure demand supplied air respirator
Greater than 100 f/cc	Full face pressure demand supplied air respirator with an auxiliary positive pressure self-contained breathing apparatus

6.3 Air Monitoring

All operations with any potential for asbestos exposure shall be initially monitored to assess employee exposure. This monitoring will be conducted by a licensed Air Monitoring Technician and shall be conducted in accordance with OSHA reference method for personal sampler and AHERA sampling method for area sampler. Monitoring can be discontinued where data shows exposures are statistically below the action level. The data obtained from the initial monitoring will be used to establish a Negative Exposure Assessment for employees.

Affected employees shall be advised in writing of the exposure results, as soon as possible after receipt of analysis. If the results are above the PEL, employees shall be advised of corrective actions being taken to reduce their exposure.

6.4 Protective Equipment

University employees involved in O&M work will be provided the necessary protective equipment and instructed on the proper use.

1. Prior to Work
 - a. Disposable coveralls with hood
 - b. Respirator with P-100 filter

- c. Protective glasses
- d. Disposable gloves under outer gloves
- e. Rubber steel-toed boots
- f. Duct tape
- g. Assorted hand tools

Prior to entering the Restricted Area, the O&M Supervisor will ensure that all employees are properly dressed. The O&M Supervisor shall check for the following:

- The employee dons the respirator with the straps under the hood of the coveralls.
- The employee dons the inner gloves ensuring the sleeves of the coveralls are on the outside and duct taped to the suit, leaving a tab for ease in removing the suit.
- The employee's coverall legs are taped to the rubber boots, leaving a tab for ease in removing the suit.
- The employee conducts a negative and positive respirator test.
- The employee dons the outer work gloves.

2. Decontamination Procedures

Prior to exiting the Restricted Area, the O&M Supervisor will ensure that all employees follow proper decontamination procedures. The O&M Supervisor shall check for the following:

- Wipe coveralls, respirator, boots and hand tools with wet rags.
- Remove the outer work gloves and remove the duct tape from the inner gloves and suit.
- Remove the coveralls and dispose in asbestos bag.
- Remove inner gloves and dispose in asbestos bag.
- Remove respirator and if the project is complete dispose of filters in asbestos bag.
- Remove rubber boots.
- Return to Physical Plant and take a shower.

- Thoroughly clean respirator and allow to dry before placing respirator in storage bag.

7.0 ASBESTOS NOTIFICATION PROCEDURES

The University is **not** an asbestos abatement contractor and will not be involved in asbestos abatement procedures. The University will only be able to conduct maintenance and repair projects where ACBM is present. The procedure to ensure adequate notification of any operation involving ACM, or suspected of containing asbestos consists of the following:

7.1 General Notification Procedures

- A. The EHS Office is designated to perform compliance oversight on asbestos projects.
- B. The EHS Office will submit an annual notification of asbestos removal to the TDH. This notification will indicate an estimated amount of ACBM to be removed throughout the year as a result of maintenance and repair procedures. Each O&M Supervisor shall maintain a log book and document the amount of ACBM removed during each O&M project. Each O&M Supervisor is to submit an inventory of ACBM removed during the month to the EHS Office.
- C. The EHS Office shall be contacted at least 30 days prior to the planned demolition or renovation of any structure or equipment in contact with ACM. Samples of the suspected materials shall be collected for analysis, by a licensed inspector working for a licensed consultant. If the area to be disturbed during the demolition/renovation project is confirmed to be ACBM, a project design and job specific notification to the TDH is required.
- D. A complete written file, including the permit, shall be kept permanently for any work involving the removal of ACMs.

8.0 ASBESTOS REMOVAL PROCEDURES

8.1 Glove Bag Procedure for SSSD Work

1. The following equipment is required for performing glove bag removal jobs:
 - a. Appropriately sized glove bags of six-mil thick polyethylene or other plastic for the work to be performed;

- b. Tape or seal glove bag;
 - c. Amended water or other wetting agents;
 - d. Airless sprayer or low-pressure sprayer (garden sprayer) for application of wetting agent;
 - e. Bridging encapsulation;
 - f. Tools suitable for removing ACM;
 - g. HEPA filter equipped vacuum; and
 - h. HEPA filter equipped respiratory protection
2. The following work practices shall be used when performing a glove bag removal job:
- a. Glove bags will be installed over the material to be removed and all openings sealed with tape. Bottom seam of bag is to be sealed with tape to prevent leaking from a defective or torn bag.
 - b. Equipment, which is insulated with ACMs may be wrapped in plastic and removed as one piece. Glove bags shall be used at points of disassembly.
 - c. All employees performing asbestos work must be trained in asbestos handling procedures, proper respirator and protective equipment use, exposure avoidance methods and be a licensed asbestos worker.
 - d. The regulated work area is posted with the required danger signs and roped off.
 - e. Employees in the regulated area must wear full body protective clothing and respirators.
 - f. ACM must be wetted prior to removal and kept wet during the removal process.
 - g. After the ACM has been removed, the surface of the remaining equipment must be thoroughly cleaned using a brush or other similar tool and wet wiped with a wetting agent until no traces of the ACM can be seen.

- h. Any surface of ACMs that have been exposed must be encapsulated with bridging encapsulant to ensure that the surfaces do not release asbestos.
- i. When the asbestos removal and encapsulation have been completed, a vacuum hose from the HEPA filtered vacuum cleaner must be inserted into the glove bag through the open port to remove any air in the bag that may contain asbestos fibers. When the air has been removed from the bottom of the bag, it should be squeezed, twisted, sealed and goose necked with tape to keep the ACMs safely in the bottom of the bag. Then, they must be placed in an additional asbestos disposal glove bag following the above-mentioned procedures.
- j. The glove bag can then be removed from the work surface, bagged in the second bag, labeled, and prepared for disposal.
- k. The HEPA vacuum shall be used to clean up the work area. No dry sweeping or compressed air shall be permitted.
- l. Personnel wearing the proper protective equipment shall decontaminate the HEPA vacuum after each job in the regulated area. Waste material shall be bagged, labeled and disposed of properly.
- m. All asbestos contaminated waste shall be removed from the work site daily.

9.0 ASBESTOS MAINTENANCE PROGRAM

All ACMs and their coverings shall be maintained in good condition by the Physical Plant Department through the asbestos maintenance program that includes:

- 1. An inventory of all ACMs and their location;
- 2. Periodic examination of all ACMs to detect deterioration;
- 3. Written procedures for handling ACMs during SSSD and renovation activities;
- 4. Written procedures for dealing with emergencies involving ACMs; an
- 5. Written procedures for disposal of ACMs.

10.0 DEFINITIONS

Accredited person: A person who annually attends and passes the appropriate asbestos course, as described in Title 25, Part 1, Chapter 295 of the Texas Administrative Code (TAC), Subchapter C (relating to Training: Required Asbestos Training Courses). This course must be offered by a licensed asbestos training provider accredited by the department, another state having Environmental Protection Agency (EPA) authority to approve courses, or have been approved directly by EPA.

Adequately wet: Sufficiently mixed or penetrated with liquid clear through with no dry material to prevent the release of particulates. If visible emissions are observed coming from ACM, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

Air monitoring: The collection of airborne samples for analysis of asbestos fibers.

Asbestos: The asbestos form varieties of chrysotile, amosite, crocidolite, tremolite, anthrophyllite and actinolite and all materials containing 1 percent or more of any of those substances.

Asbestos Abatement: The removal of the encapsulation or the enclosure of asbestos for the purpose of reducing or eliminating airborne concentrations of asbestos fibers or amounts of AGMs.

Asbestos Abatement Activity: Asbestos abatement, or any on-site preparations or clean up related to the abatement.

Asbestos Abatement Contractor: A person who undertakes to perform asbestos removal, enclosure, or encapsulation for others under contract or other agreement, or who bids to undertake asbestos activities. The University's contracted asbestos abatement contractor requires licensure under 25 TAC §295.45.

Asbestos Abatement Supervisor: An individual who is in the direct and responsible charge of the personnel, practices and procedures of an asbestos abatement operation or project. The University's contracted asbestos abatement supervisors require licensure under 25 TAC §295.46.

Asbestos Consulting Activities: Consulting activities in public buildings include the designing of asbestos abatement projects; the inspection for ACM; the evaluation and selection of appropriate asbestos abatement methods and project layout; the preparation of plans, specifications and contract documents; the review of environmental controls, abatement procedures for personal protection employed during the project; the design of area clearance air monitoring of the project; any inspection, management planning, air monitoring, or project management performed by or for the consultant or consulting agency; consultation regarding compliance with various regulations and standards; recommending abatement options; and representing the consultant agency or consultant in obtaining consulting work.

Asbestos-Containing Material (ACM): Materials or products containing more than 1 percent of any kind or combination of mineral asbestos, as determined by EPA.

Asbestos-Containing Building Material (ACBM): Surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a public or commercial building.

Asbestos-Containing Waste Material: Includes mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of 40 Code of Federal Regulations (CFR) Part 61, Subpart M. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with asbestos. As applied to demolition

and renovation operations, this term also includes regulated ACMs, and materials contaminated with asbestos including disposable equipment and clothing

Asbestos Exposure: The airborne fiber concentration resulting from disturbance or deterioration of asbestos or ACM.

Asbestos Hazard Emergency Response Act of 1986: Public Law 99-519. The act amends the Federal Toxic Substances Control Act, 15 United States Code, §2641, et seq., by requiring an inspection of all school buildings(Grades K-12), all school administrations to develop plans for controlling asbestos in or removing asbestos from school buildings, and providing penalties for non-compliance.

Asbestos-Related Activity: The disturbance (whether intentional or unintentional); removal, encapsulation; or enclosure of asbestos, including preparations or final clearance. This includes the performance of asbestos surveys, the development of management plans and response actions, asbestos project design, the collection or analysis of asbestos samples, monitoring for airborne asbestos, bidding for a contract for any of these activities, or any other activity required to be licensed under the Texas Asbestos Health Protection Act.

Asbestos Removal: Any action that dislodges, strips, or otherwise takes away ACM.

Asbestos Reporting Unit (ARU): An asbestos reporting unit is 160 square feet or 260 linear feet or 35 cubic feet of ACBM in public buildings or RACM in facilities, as defined by the National Emissions Standards for Hazardous Air Pollutants (NESHAP).

Asbestos Survey: A comprehensive inspection of a building or facility to determine the location, quantity, and condition of ACMs therein by taking samples for analysis or by visual inspection. The University's contracted asbestos inspectors require licensure under 25 TAC §295.30.

Asbestos Work Permit: A permit authorizing asbestos work at Texas A&M University -Kingsville. This permit does not replace requirements to submit notifications to the Texas Department of Health (TDH) and the Texas Natural Resource Conservation Commission (TNRCC).

Bridging Encapsulation: A paste-like substance for coating ACMs to seal remaining surfaces.

Building Owner: The owner of record of any building or any person, such as a property manager, who exercises control over such building. This person contracts for or permits renovation to or demolition of said building. A general contractor hired by the building owner cannot act as the building owner.

Clean Room: A non-contaminated area or room that is part of the worker decontamination enclosure system providing storage for work clothes, street clothes and clean protective equipment.

Clearance Monitoring: Samples taken after an asbestos removal job to show that airborne asbestos fibers are at acceptable levels.

Commercial Asbestos: Any material containing asbestos that is extracted from ore and has value because of its asbestos content (NESHAP definition, 1990).

Commercial Building: The interior space of any industrial or federally owned building. Interior space includes exterior hallways connecting buildings, porticos and mechanical systems used to condition interior space.

Competent Person: The individual designated as the competent person as required by the U.S. Occupational and Health Administration in 29 CFR § 1926.58.

Containment: A portion of the regulated area that has been sealed and placed under negative air pressure with high efficiency particulate air-filter (HEPA) negative air machines.

Contractor: A person under contract to perform a service with wage or income reporting and tax responsibility.

Demolition: The wrecking or taking out of any load-supporting structural member of a public building or facility or any related asbestos removal, stripping, or handling operations together with any related operations or the intentional burning of any public building or facility.

Designated Person: The individual designated under the Asbestos Hazard Emergency Response Act (AHERA) to oversee all asbestos activities to include compliance with all laws, regulations, and rules.

Emergency Renovation: An unplanned renovation operation that resulted from a sudden, unexpected event, that is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by non-routine failures in equipment.

1. When abatement has been performed and renovation or demolition has begun, and ACM is found in an area from which was hidden from view.
2. When a boiler, which provides heat to a building, suddenly fails and needs immediate replacement in winter because the contents of the structure will be severely damaged without the heat, or the building must be occupied by people who have no other place to go.

Encapsulation: A method of control of asbestos fibers in which the surface of ACM is penetrated by or covered with a liquid coating prepared for that purpose.

Enclosure: The construction of an airtight, impermeable, semi-permanent barrier surrounding asbestos to prevent the release of asbestos fibers into the air.

Equipment Room: A contaminated area, part of the worker decontamination enclosure system, providing storage for contaminated clothing and equipment.

Facility: Any institutional, commercial, public, industrial or residential structure, installation or building (including any structure, installation or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units); any ship and any active or inactive disposal site. Any structure, installation or building previously subject to 40 CFR §61.141, Subpart M is not excluded, regardless of its current use or function.

Facility Owner: The owner of record of any facility or public building or any person who exercises control over a facility or public building to the extent that said person contracts for or permits renovation to or demolition of said facility or public building.

Friable Material: Materials that when dry can be crumbled, pulverized, or reduced to powder by hand pressure. This includes previously non-friable material after such previously non-friable material becomes damaged to the extent that, when dry, it may be crumbled, pulverized, or reduced to powder by hand pressure.

Glove Bag: Single use bags with arms, made of transparent polyethylene or other plastic six mil. in thickness, used to enclose ACM during removal and disposal.

High Efficiency Particulate Air (HEPA) Filtration: A high-efficiency particulate air filter capable of trapping and retaining 99.97 percent of mono-dispersed airborne particles of 0.3 micron or larger in diameter.

Independent Third-Party Monitor: A person retained to collect air samples to be analyzed by and for the University. The person must not be employed by the contractor to analyze any area samples collected during abatement projects being monitored or the clearance samples.

Industrial Building: Any building where industrial or manufacturing operations or processes are conducted and to which access is limited principally to employees and contractors of the facility operator or to invited guests under controlled conditions.

Inspection: Any activity undertaken in a school building, public building or commercial building to determine the presence or location or to assess the condition of, friable or non-friable ACBMs or suspected ACBMs. This activity can be accomplished by visual or physical examination, or by collecting samples of such material. This term includes the re-inspections of friable and non-friable, known or assumed ACBMs that have been previously identified. The term does not include the following:

1. Periodic surveillance of the type described in 40 CFR §763.92(b) solely for the purpose of recording or reporting a change in the condition of known or assumed ACBM;
2. Inspections performed by employees or agents of federal, state, or local government solely for the purpose of determining compliance with applicable statutes or regulations; or
3. Visual inspections of the type described in 40 CFR §763.90(i) solely for the purpose of determining completion of response actions.

Installation: A building or structure, or group of buildings or structures, at a single demolition or renovation site controlled by the same owner or operator (NESHAP definition, 1990).

Layer: Any constituent of an asbestos bulk sample that exhibits different physical properties such as color or composition and can be readily separated from the rest of the sample with an instrument such as a modeler's knife.

Licensee: A person who meets all qualifications and has been issued a license or registration by the TDH in accordance with these sections.

Major Fiber Release Episode: Any uncontrolled or unintentional disturbance of ACBM, resulting in a visible emission, which involves the falling or dislodging of more than three square or linear feet of friable ACBM.

Management Plan: A written plan describing appropriate actions for surveillance and management of ACBs.

Minor Fiber Release Episode: Any uncontrolled or unintentional disturbance of ACBM, resulting in a visible emission, which involves the falling or dislodging of three square or linear feet or less of friable ACBM.

Model Accreditation Plan: A United States EPA plan which provides standards for initial training, examinations, refresher training courses, applicant qualifications, decertification, and reciprocity, as described in Title 40 CFR Part 763, Subpart E, Appendix C.

Non-friable Material: Material which when dry may not be crumbled, pulverized, or reduced to powder by hand pressure.

NVLAP: The National Voluntary Laboratory Accreditation Program.

NESHAP: The U.S. EPA National Emissions Standards for Hazardous Air Pollutants, as described in Title 40 CFR Part 61.

Operation and Maintenance (O&M): O&M activities are repairs, maintenance, renovation, installation, replacement or cleanup of building materials or equipment.

Operation and Maintenance (O&M) Contractor: A person who holds an O&M Contractor (Restricted) license for general asbestos O&M work in a public building, and follows the guidance contained in the EPA "Green Book." A contractor working for other must have the specified insurance for an abatement contractor.

Operations and Maintenance (O&M) Manual: A record of O&M activities in a public building. The public building owner shall record each individual O&M activity in the manual, including the date of activity, the persons performing the activity, and complete description of the activity. The manual must also include the methods used to prevent the emission of asbestos fibers, and the amount of asbestos removed. An updated total of the amount of asbestos abated shall be kept as a comparison to the amount estimated in the annual O&M notification. The manual will be made available to the department upon request.

Owner or Operator of a Demolition or Renovation Activity: Any person who owns, leases, operates, controls, or supervises the facility }being demolished or renovated. This includes any person who owns, leases, operates, controls, or supervises the demolition or renovation operation or both.

Phase contrast microscopy (PCM): A method of analysis for overall airborne fiber counts using an optical microscope.

Permissible Exposure Limit (PEL): The maximum amount of airborne asbestos allowable for an eight-hour time weighted average. The PEL is 0.1 f/cc.

Plans and Specifications: Site-specific asbestos abatement description which included drawings, floor plans or equivalent of sufficient size and detail, that display the location of asbestos abatement activities, the location of regulated area(s), and a clear and understandable written description of the work to be performed.

Polarized light microscopy (PLM): A method of analysis for detection of the presence and type of asbestos.

Public Building: A building used or to be used for purposes that provide for public access or occupancy, including prisons and similar buildings. Interior space includes exterior hallways connecting buildings, porticos, and mechanical systems used to connect interior space. This term includes any building during a period of vacancy. This term includes the time during which preparations are being made prior to actual demolition. The university does not include areas covered by Restricted Access Policy as public buildings.

Public School: Any elementary or secondary school operated by publicly elected or appointed school officials in which the program and activities are under the control of these officials and which is supported primarily by public funds.

Regulated Area: The demarcated area in which asbestos abatement activity takes place, and in which the possibility of exceeding the PEL for the concentrations of airborne asbestos exists.

Renovation: Additions to or alterations of the building for purposes of restoration by removal, repairing and rebuilding.

1. **Planned Renovation:** A renovation operation in which the amount of asbestos material to be removed is predetermined and a plan for removal is defined.
2. **Emergency Renovation:** Renovation that was not planned but resulted from any unexpected event such a non-routine failure.

Repair: The restoration of damaged asbestos material to good condition, including the external coverings, overhauling, rebuilding, reconstructing or reconditioning of structures or substances where ACMs are present.

Response Action: A method, including removal, encapsulation, enclosure, repair, and operation and maintenance, that protects human health and the environment from friable ACBM.

Responsible Person: The individual that is designated by the licensed Asbestos Abatement Contractor, Asbestos O&M Contractor, Asbestos Laboratory, Asbestos Consultant Agency, or Asbestos Management Planner Agency, as responsible for their operations and compliance with these rules.

School: Any public or private, non-profit, elementary or secondary (kindergarten through grade 12) school as defined in the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801).

School Building: Any structure suitable for use a classroom, including a school facility such as a laboratory, library, school eating facility, or facility used for the preparation of food. Any gymnasium, or other facility, that is specially designed for athletic or recreational activities for an academic course in physical education. Any other facility used for the instruction or housing of students or for the administration of educational or research programs. Any maintenance, storage, or utility facility, including any hallway, essential to the operation of any facility described in the definition of "school building." Any portico or covered exterior hallway or walkway. Any exterior portion of a mechanical system used to condition interior space.

Short Term Excursion Limit (STEL): The maximum amount of airborne asbestos allowable over a thirty-minute sampling period. The STEL is 1.0 f/cc.

Small-scale, short-duration activities (SSSD): Tasks including, but not limited to removal of asbestos-containing insulation on pipes; removal of small quantities of asbestos-containing insulation on beams or above ceilings; replacement of an asbestos-containing gasket on a valve; installation or removal of a small section of drywall; installation of electrical conduits through or proximate to ACMs. These tasks do not require accreditation when performed in a commercial building. SSSD can be further defined by the following considerations.

1. Removal of small quantities of ACM only if required in the performance of another maintenance activity not intended as asbestos abatement.
2. Removal of asbestos-containing thermal system insulation not to exceed amounts greater than those which can be contained in a single glove bag.
3. Minor repairs to damaged thermal system insulation, which do not require removal.
4. Repairs involving encapsulation, enclosure, or removal to small amounts of friable ACBM only if required in the performance of emergency or routine maintenance activity and not intended solely as asbestos abatement. Such work may not exceed amounts greater than those that can be contained in a single prefabricated mini-enclosure (glove bag). Such an enclosure shall conform spatially and geometrically to the localized work areas, in order to perform its intended containment function.

Spill: Any unplanned distribution of friable asbestos outside the regulated work area. Includes damaged pipe insulation, process vessel insulation, transite wallboard, asbestos shingles, etc.

Start Date: The dates defined as:

1. Asbestos Abatement Start Date: The date on which the disturbance of asbestos begins.
2. Demolition/Renovation Start Date: The date on which the demolition or renovation process begins.

Stop Date: The dates defined as:

1. Asbestos Abatement Stop Date (Completion Date): The date upon which air monitoring clearance of asbestos abatement has been achieved. Where air clearance is not required, such as roofing removal, the date upon which the removal of ACM is completed.
2. Demolition/Renovation Stop Date: The date on which the demolition or renovation is completed.

Surfacing material: A 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).

Survey: 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 ACM or suspected ACM, whether by visual or physical examination, or by collecting samples of such material. This term includes re-inspections of friable and non-friable known or assumed ACM that has been previously identified. The term does not include the following:

1. Periodic surveillance of the type described in 40 CFR §763.92(b) solely for the purpose of recording or reporting a change in the condition of known or assumed ACM;
2. Inspections performed by employees or agents of federal, state, or local government solely for the purpose of determining compliance with applicable statutes or regulations; or
3. Visual inspections of the type described in 40 CFR §763.90(i) solely for the purpose of determining completion of response actions.

TDH Notification Form: The purpose of the form is to inform TDH of asbestos abatement, and needs to be filed with TDH 10 working days prior to the start date given on the notification form by the asbestos abatement contractor.

TEM: Transmission Electron Microscopy.

Thermal System Insulation (TSI): ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

Thermal System Insulation ACM: means thermal system insulation which contains more than 1 percent asbestos.

Transportation of ACM: Moving asbestos materials from one site to another.

Wetted: Sufficiently mixed, coated or penetrated with water or an amended water solution (water with wetting agent added) to prevent dust or fiber emissions. The material must remain wetted until disposed of in accordance with this guideline.