SIMMONS COLLEGE

ASBESTOS MANAGEMENT PLAN

Original Date: May 2016

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ASBESTOS MANAGEMENT PROGRAM REVIEW SUMMARY

Revision(s)	Date	Name (print)	Signature

1.0 INTRODUCTION

Asbestos is a set of six naturally occurring silicate minerals. Mining of asbestos began more than 4,000 years ago, but did not start large-scale until the end of the 19th century when manufacturers and builders used asbestos because of its desirable physical properties: sound absorption, average tensile strength, its resistance to fire, heat, electrical and chemical damage, and affordability. When asbestos is used for its resistance to fire or heat, the fibers are often mixed with cement or woven into fabric or mats. These desirable properties made asbestos use to continue to grow throughout most of the 20th century until the carcinogenic effects of asbestos dust caused its effective demise as a mainstream construction and fireproofing material.

Asbestos as such is not harmful, as long as it's intact. When disturbed, it causes the fibers to float in the air where they are easily inhaled. Inhaled asbestos fibers remain in the body and cannot be expelled. Because of this, the fibers can easily penetrate body tissues and may deposit themselves in airways and lung tissue. The time lag between inhalation and any adverse health manifestations can be as long as 30 or more years.

The buildings at Simmons College (Simmons) were built between the 1899 and 2002. Due to the ages of the buildings, asbestos-containing materials (ACMs) may have been or are present in Simmons' buildings. Simmons consists of two campuses:

Academic Campus
300 The Fenway
Boston, Massachusetts 02115

Residence Campus
54 Pilgrim Road
Boston, Massachusetts 02115

Simmons is committed to providing a safe and healthy environment for students, staff, faculty, contractors, and visitors and to complying with governmental safety and environmental regulations. As a result, the Buildings and Grounds Department and the Director of Environmental Health and Safety (EH&S) have prepared this Asbestos Management Program (AMP) to ensure that students, staff, faculty, contractors, and visitors are not exposed to asbestos while at Simmons.

2.0 PURPOSE

The objectives of this program include identification of asbestos materials, hazard communication, training, maintenance, and repair or removal of ACM in Simmons' facilities. The program ensures that employees and others will not be exposed to significant levels of asbestos fibers, and that asbestos will be handled in full compliance with all applicable regulations and adhere to Best Management Practices (BMPs).

This policy applies to all Simmons employees who must work around or near ACM, such as Buildings and Grounds and Facilities employees, who will oversee construction and renovation work that may impact asbestos materials.

Simmons does not authorize its employees to engage in asbestos repair or removal activities but instead utilizes licensed and certified outside contractors for these services.

3.0 REGULATIONS

Federal, state, and local regulations have been developed to protect workers and the general public from exposure to asbestos.

3.1 Federal

The U.S. Occupational Safety and Health Administration (OSHA) oversees the working conditions for workers by implementing and managing occupational safety and health standards. The following regulations pertain to the handling of asbestos in the workplace.

- 29 Code of Federal Regulations (CFR) 1910.1001, Asbestos General Standard
- 29 CFR 1926.1101, Asbestos Construction Standard
- 29 CFR 1910.1200, Hazard Communication (HAZCOM) Standard

The Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) were developed by the U.S. Environmental Protection Agency (EPA) to specify work practices for asbestos to be followed during demolitions and renovations of all structures, installations, and buildings (excluding residential buildings that have four or fewer dwelling units). The regulations require the owner of the building or the operator to notify the appropriate state agency before any demolition, or before any renovations of buildings that could contain a certain threshold amount of asbestos or asbestos-containing material. In addition, particular manufacturing and fabricating operations either cannot emit visible emissions into the outside air or must follow air cleaning procedures, as well as follow certain requirements when removing asbestos-containing waste. These regulations are under 40 CFR 61, Subpart M – National Emission Standard for Asbestos.

Point sources of discharges of pollutants are required to comply with 40 CFR Subpart N – Effluent Guidelines and Standards, where applicable, and permits issued by the Massachusetts Water Resource Authority (MWRA) or EPA under the National Pollutant Discharge Elimination System (NPDES). Asbestos is listed as a toxic pollutant for effluent under 40 CFR 401.15.

3.2 State

The Massachusetts Department of Labor Standards (MADLS) Asbestos Program is responsible for the regulation of occupational asbestos exposure in Massachusetts. The following are the statue and regulation associated with this DLS Program. The Massachusetts Department of Labor and Workforce Development (MADLWD) oversees this program.

- Massachusetts General Laws (MGL), Part I, Title XXI, Chapter 149, Sections 6A to 6F
- 453 Code of Massachusetts Regulations (CMR) 6.00

The DOS requires training and licenses for all asbestos related workers including the following:

- Asbestos Contractor
- Asbestos Associated Project Workers
- Asbestos Workers
- Asbestos Supervisors
- Asbestos Inspectors
- Asbestos Project Monitor
- Asbestos Trainers

Residential and institutional buildings are subject to Massachusetts Department of Environmental Protection (MADEP) asbestos regulations under 310 CMR 7.00, Air Pollution Control, specifically 7.00, 7.09, and 7.15. The MADEP has issued 310 CMR 19.00, Solid Waste Management, which regulates asbestos-containing waste under 19.061.

In addition, MADEP requires that any asbestos released to the environment at or above the reportable quantity is required to report the release to MADEP under the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. Once MADEP is notified, Simmons will be required to follow the MCP requirements for remediation.

As indicated above, the MWRA also prohibits the discharge of asbestos into the wastewater.

3.3 Local

The Boston Fire Department (BFD) – Fire Prevention Division requires an Asbestos Removal Permit application for the removal of asbestos. The application form is available on the BFD's webpage and must be submitted prior to the work.

Asbestos removal or repair projects in Boston require a permit issued by the Environmental Health Office of the Boston Public Health Commission (BPHC) under the Asbestos Regulations, which were issued by the BPHC under MGL, Part I, Title XVI, Chapter 111, Sections 31 and 122 and Chapter 656 of the Acts of 1965. These regulations establish and constitute requirements to protect the health and safety of persons engaged in the removal, enclosure, encapsulation or disturbance of asbestos or ACM and the public while these activities are being performed in a building.

4.0 DEFINITIONS AND ACRONYMS

Below are the definitions associated with this document.

Abatement – The procedures used to control fiber release from asbestos-containing materials in a building, or to remove them entirely, including removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs.

Adequately Wet or Adequately Wetted – Fixing or coating with water (or water which a surfactant has been added), amended water or a remover-encapsulant, so as to prevent a friable condition with visible emissions. Material shall be considered adequately wetted where it has been fixed or coated with water

(or water which a surfactant has been added), amended water or a remover-encapsulant, so as to prevent a friable condition with visible emissions.

Asbestos – A naturally occurring highly fibrous silicate mineral with long, thin, separable fibers. It is present in the air outdoors and in some drinkable water, including water from natural sources. The word Asbestos is derived from a Greek adjective meaning "inextinguishable." The varieties of asbestos include chrysotile (serpentine); crocidolite (riebeckite); amosite (cummingtonite/grunerite); anthophyllite; tremolite; and actinolite. Chrysotile, amosite, and crocidolite are commonly used types of asbestos in building materials. This definition also includes any of these minerals that have been chemically treated and/or altered.

Asbestos Containing Material (ACM) – Material composed of asbestos of any type and in an amount more than 1% asbestos.

AMP – Asbestos Management Program

ACWM – Asbestos-containing waste material

Authorized Person – Any person authorized by Simmons and required by work duties to be present in regulated asbestos areas.

Best Management Practice (BMP) – Methods or techniques found to be effective and practical in achieving an objective while making the optimum use of resources and proven at other institutions or industries.

BFD – Boston Fire Department

BPHC – Boston Public Health Commission

CFR – Code of Federal Regulations

Class I Asbestos Work: the removal of thermal system insulation and/or surfacing material (ACM or PACM).

Class II Asbestos Work – Removal of any ACM which is not Class I, such as wallboard, floor tile, ceiling tile, linoleum, transite board, roofing materials and mastics.

Class III Asbestos Work - Repair and maintenance operations where ACM is likely to be disturbed.

Class IV Asbestos Work – Maintenance and custodial activities during which employees contact but do not disturb ACM, and activities to clean up dust and debris which may be generated by Class I, II, or III work.

Clearance Air Monitoring – Air monitoring conducted by a DOL licensed Asbestos Project Monitor at the conclusion of an asbestos project. Clearance air monitoring includes the successful completion of a final visual inspection for work area debris and the collection and analysis of air samples in accordance with Massachusetts DOL Regulation 453 CMR 6.00. The abatement project is considered complete when

clearance air samples are analyzed by an approved method that results in a fiber concentration less than the designated Simmons' OEL for asbestos.

CMR – Code of Massachusetts Regulations

Competent Person – A person who is capable of identifying existing asbestos hazards in the workplace and selecting appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate the identified hazards.

EH&S – Environmental Health and Safety

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

EPA – U.S. Environmental Protection Agency

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

Friable ACM – Any material applied on ceilings, walls, structural members, piping, duct work, or any other part of a building, which when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. This term includes **Non-friable ACM** 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.

HAZCOM – OSHA Hazard Communication Standard

High-Efficiency Particulate Air (HEPA) Filter – A filter capable of trapping and retaining at least 99.97 percent of 0.3 micrometer diameter mono-disperse particles.

Homogeneous Area – An area of surfacing material or thermal system insulation that is uniform in color and texture.

HVAC – Heating, Ventilation, and Air Conditioning

Inspection – An activity undertaken in a building to determine the presence or location, or to assess the condition of, friable or non-friable ACM or PACM, whether by visual or physical examination, or by collecting sample of such material. This term includes re-inspections of friable and non-friable known or assumed ACM or PACM, which has been previously identified.

MADEP – Massachusetts Department of Environmental Protection

MADLS – Massachusetts Department of Labor Standards

MADLWD – Massachusetts Department of Labor and Workforce Development

MADOS – Massachusetts Department of Occupational Safety

MCP – Massachusetts Contingency Plan

MGL – Massachusetts General Laws

MWRA – Massachusetts Water Resource Authority

NESHAP – National Emission Standards for Hazardous Air Pollutants

NPDES – National Pollutant Discharge Elimination System

Occupational Exposure Limits (OELs) – An upper limit on the acceptable concentration of a hazardous substance in workplace air for a particular material or class of materials. It is typically set by competent national authorities.

OSHA – U.S. Occupational Safety and Health Administration

Permissible Exposure Limits (PELs) – Limits established by OSHA to protect workers against health effects of exposure to hazardous substances in the air.

Presumed ACM (PACM) – Thermal system insulation and surfacing material found in buildings, piping, vessels, and vessel sections that are assumed to contain greater than one percent asbestos. The designation of a material as PACM may be rebutted pursuant to the OSHA regulations or unless a determined is made in accordance with the OSHA regulations that the material is not ACM.

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

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

Surfacing ACM – Surfacing material which contains more than 1 percent asbestos

Surfacing Material - Material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).

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 – TSI which contains more than 1 percent asbestos.

VAT – Vinyl Asbestos Tile

5.0 RESPONSIBILITIES

The following Simmons personnel are responsible for the administration of the AMP and the coordination of asbestos-related activities.

5.1 Buildings and Grounds

The Buildings and Grounds Department manages, coordinates, approves, schedules, and inspects all asbestos related activities conducted at Simmons. The Department will provide communication between the Simmons personnel and contractors conducting asbestos work and the Director of EH&S to ensure compliance with BMPs and the contents of this AMP. The Director of Buildings and Grounds will be the designated coordinator unless he delegates the duties to another person within the Buildings and Grounds Department or the Director of EH&S. Training records will be maintained by the Buildings and Grounds Department.

5.2 Director of EH&S

The Director of EH&S will serve as in-house contact for review of Abatement and Industrial Hygiene contract work to ensure compliance. EH&S will also maintain copies of training and disposal records which have been forwarded to Simmons and copies of Simmons' personnel training records. The Director of EH&S may request the assistance from a consultant, if needed. Licenses contractors will be used for abatement work and training.

5.3 Asbestos Coordinator/Licenses Asbestos Inspector

The asbestos coordinator/licensed asbestos inspector will be contracted by the Buildings and Grounds Department to, as necessary, survey relevant areas for ACM and obtain samples for analyses, and to develop contracts and technical procedures for asbestos abatement.

5.4 Licensed Abatement Contractor

Contractors will be responsible for obtaining the necessary permits from all of the regulatory agencies in accordance with the applicable regulations and for overseeing activities that may involve the abatement/disturbance of ACM. The abatement will be performed in accordance with practices designed to limit potential exposure to asbestos hazards to the Simmons community and general public. Copies of the permits and the contractor's license(s) will be provided to Director of Buildings and Grounds or designee for Simmons' records.

Contractors must, at a minimum, comply with the standards and procedures required by the Boston, Massachusetts, and United States regulations listed in Section 3.0 of this AMP.

6.0 ASBESTOS IDENTIFICATION

As indicated in Section 1.0, the buildings at Simmons were built between the 1899 and 2002. Due to the ages of the buildings, ACMs may have been or are present in Simmons' buildings. Simmons performed an ACM survey for the Main College Building located on the Academic campus in the early 2000s but no other surveys have been performed for the remaining buildings.

The following sections describe examples of ACM or PACM on the Simmons' campuses, how ACM will be classified, what information will be provided in building inventories, and what information is required on signs and labels.

6.1 Examples

Table 1 provides examples of ACM or PACM in buildings provided by EPA. One of the most common misconceptions is that buildings, specifically built after 1980, do not contain asbestos.

Table 1 Examples of ACM and PACM		
Cement Pipes	Elevator Brake Shoes	Fire Blankets
Cement Wallboard	HVAC Duct Insulation	Fire Curtains
Cement Siding	Boiler Insulation	Fire Doors
Asphalt Floor Tile	Breaching Insulation	Elevator Equipment Panels
Vinyl Floor Tile	Ductwork Flexible Fabric Connections	Wallboard
Vinyl Sheet Flooring	Cooling Towers	Joint Compounds
Flooring Backing	Pipe Insulation (corrugated air-cell, block, etc.)	Vinyl Wall Coverings
Construction Mastics (floor tile, carpet, ceiling tile, etc.)	Heating and Electrical Ducts	Spackling Compounds
Acoustical Plaster	Electrical Panel Partitions	Laboratory Hoods/Table Tops
Decorative Plaster	Electrical Cloth	Laboratory Gloves
Textured Paints/Coatings	Electric Wiring Insulation	Adhesives
Ceiling Tiles and Lay-in Panels	Chalkboards	Caulking/Putties
Spray-Applied Insulation	Roofing Shingles	Packing Materials (for wall/floor penetrations)
Blown-in Insulation	Roofing Felt	High Temperature Gaskets
Fireproofing Materials	Base Flashing	Taping Compounds (thermal)

6.2 Classifications

EPA recommendations that ACM be classified into one of the following categories:

- **Surfacing Material:** Examples include ACM sprayed or trowel onto surfaces, such as decorative plaster on ceilings or acoustical ACM on the underside of concrete slabs or decking, or fireproofing materials on structural members.
- **Thermal System Insulation (TSI):** Examples of this material include ACM applies to pipes, boilers, tanks, and ducts to prevent heat loss or gain, or condensation.
- **Miscellaneous ACM:** Examples include asbestos-containing ceiling or floor tiles, textiles, and other components such as asbestos cement panels, asbestos siding and roofing materials, and electrical and sound insulation materials.

6.3 Building Inventories

The Buildings and Grounds Department will maintain an inventory of ACM or PACM locations. The inventory will include the following information:

- Building
- Room
- Specific location within room
- Type
- Quantity
- Condition of source
- Date of inspection
- Whether or not sample collection was performed
- Asbestos content if determine via analytical testing, if applicable
- Description of response actions or preventive measures taken, if applicable

6.4 Signs and Labels

The Buildings and Grounds Department, Director of EH&S, designee, or contractor will post signs and labels to communicate hazard information to faculty, adjuncts, staff, students, visitors, and/or. To ensure comprehension, when warranted, the Buildings and Grounds Department, Director of EH&S, or contractor will use pictrograms, graphics, and/or awareness training or a combination of these methods.

In accordance with OSHA, the signs and labels will include the following words:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

7.0 EXPOSURE MONITORING

Exposure monitoring will be performed if there is reason to believe that the permissible exposure limit (PEL) for asbestos, which is 0.1 fiber per cubic centimeter of air as an eight-hour time-weighted average with an excursion limit of 1.0 asbestos fibers per cubic centimeter over a 30-minute period. This monitoring will be performed by a contractor.

Results will be communicated to the affected employees within 15 working days of receiving the results.

8.0 NOTIFICATION TO REGULATORY AGENCIES

In order to conduct any asbestos related work in Boston and Massachusetts, you are required to apply for and receive an asbestos abatement project permit. The asbestos contractor will file and obtain the appropriate permits and notifications required by MADEP, BFD, and BPHC for asbestos projects at Simmons. Copies of the permits and notifications will be provided to the Director of EH&S, the Director of Buildings and Grounds, or designee.

8.1 Massachusetts Department of Environmental Protection

8.1.1 Exemptions

MADEP has exempted the following small abatements from the 10-day notification prior to start:

- 100 square feet (SF) or less or exterior asbestos cement shingles, siding, and panels.
- Incidental maintenance:
    - 100 SF or less of asbestos floor tiles and related mastics
    - 32 SF or less of gypsum wallboard and joint compound that contains asbestos
- Exempt abatements sill need to follow the applicable work practices.

8.1.2 Non-traditional Asbestos Abatement Work Practice Approvals

The following six situations are eligible for a "Non-traditional (NT)" Asbestos Abatement Work Practice Approval from MADEP.

1. Demolition of a facility under an order of a state or local government agency issued because the facility is structurally unsound and in danger of imminent collapse.
2. Where ACM or Asbestos Containing Waste Material (ACWM) was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, the material cannot be safely removed with standard work practices.
3. Asbestos abatement activities that are conducted as part of an emergency renovation operation.
4. Asbestos abatement activities that are conducted to clean up and decontaminate a facility or portion of a facility as a result of:
    a. Asbestos abatement activities not conducted in compliance with 310 CMR 7.15, or
    b. ACM deterioration that, if not immediately attended to, presents a safety or public health hazard.
5. In a facility that is being renovated, where wetting would unavoidably damage equipment or present a safety hazard. OR
6. Bulk loading ACM and/or ACWM.

An AQ-36 form, proposal, and fee must be submitted to MADEP for approval. The proposal describes:

- Which prescribed work practice standards cannot be implemented.
- The non-traditional work practices that would be used.
- Steps to ensure that alternative work practices won't release asbestos to ambient air.

Upon review, MADEP will issue written approval and permit approval number. MADEP may issue verbal conditional approvals for emergency situations.

8.2 Boston Fire Department

A BFD asbestos removal permit is required for construction activities involving asbestos.

8.3 Boston Public Health Commission

The BPHC requires that asbestos projects including but not limited to asbestos removal, encapsulation, repair, simple pick-up and disposal, re-notification of an on-going job, emergencies, clean-up jobs, and multiple buildings in one contract.

9.0 BUILDING SURVEYS

The Director of EH&S, Director of Building and Grounds, or designee will coordinate the completion of a building survey for ACMs and PACMs. All surveys will be conducted with the oversight of the Director of EH&S, the Director of Buildings and Grounds, or designee and will include the following activities. Surveys will be completed in accordance with local, state, and federal regulations. A contactor may complete these activities on behalf of Simmons.

- Signage and Labeling
- Bulk Sampling and Analyses
- Floor Plans identifying ACM and PACM (NOTE: Locations include material containing asbestos in any amount including < 1%)
- Tables identifying building, room, locations within rooms, class of ACMs, and estimate quantities
- Abatement Cost estimates
- Recommendations regarding condition of materials. Here are some examples:
- Evidence of deterioration or delaminating from the underlying surfaces
- Evidence of physical damage
- Evidence of water damage
- Proximity to air plenum or direct airstream
- Accessibility, visibility and degree of activity
- Change in area or building use
- Risk rating for disturbance at each location: High or Low
- A statement of compliance with the NESHAPs survey requirements and the credentials of the Asbestos Inspector

Each time a significant asbestos abatement project is conducted, the Project Manager will update records to reflect the changes in the building conditions. This may include records such as:

- A letter of addendum to the building survey indicating amounts and located were asbestos was removed.
- A modified building floor plan identifying areas where ACMs remain.

Asbestos surveys will be accessible to faculty, staff, and students normal business hours at the Buildings and Grounds Office. **These surveys will be maintained for at least two years.**

9.1 Demolition or Renovations

The MADEP requires a survey of the area to be affected by a demolition or renovation project to be conducted before the project starts, to identify all material containing any amount of asbestos that is present in the facility or facility component to be demolished or renovated. A qualified individual

holding a valid and current DOL Asbestos Inspector License will conduct these building surveys. It will be the responsibility of the Project Manager from Buildings and Grounds Department to coordinate an inspection by a DOL licensed Asbestos Inspector as a component of the project.

9.2 Existing Building Surveys

Surveying of existing buildings will occur in phases based upon building classification and the following priority schedule. These surveys will be conducted depending on whether or not it is economically feasible for Simmons to perform the surveys during the fiscal year.

1. Residence Halls
2. Academic Buildings
3. Administration Buildings
4. Miscellaneous
5. New Acquisitions

A qualified individual holding a valid and current DOL Asbestos Inspector License will conduct these building surveys.

9.3 Post-Abatement Visual Inspections

This inspection is required for all abatements. It is done at the end of the abatement by a DLS-certified asbestos project monitor. It ensures that abatement work was complete.

10.0 OPERATIONS AND MAINTENANCE PROCEDURES

This section outlines the operations and maintenance (O&M) procedures depending on the activity. Simmons hires consultants to perform these procedures since there is no respiratory protection program at Simmons. The asbestos coordinator for Simmons is the Director of Buildings and Grounds or a designee.

10.1 Classes of Work

The classes of asbestos work and a brief description are provided below:

- *Class I asbestos work:* Activities involving the removal of TSI and surfacing (sprayed-on, troweled-on, or otherwise applied) ACM and PACM.
- *Class II asbestos work:* Activities involving the removal of ACM which is not thermal system insulation (TSI) or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.
- *Class III asbestos work:* Repair and maintenance operations, where ACM, including TSI and surfacing ACM and PACM, is likely to be disturbed.
- *Class IV asbestos work:* Maintenance and custodial activities during which employees contact, but do not disturb, ACM or PACM and activities to clean up dust, waste, and debris resulting from Class I, II, and III activities.

10.2 Procedure for Trace Asbestos Materials

Trace asbestos refers to a material that contains less than one percent (< 1 %) asbestos. The work requirements are as follows:

1. Training (awareness level or O&M level).
2. Contractors must have a respirator program.
3. Initial exposure monitoring.
4. Worker protection (suits, respirators, etc.).
5. Seal off area to prevent transmission of dust beyond the immediate work area.
6. Post construction area warning signs.
7. Use wet methods (amended water: water mixed with surfactant (soap)).
8. Use HEPA-vacuums.
9. Prompt clean-up and disposal of waste and debris contaminated with trace asbestos in leak tight plastic bags or containers. (Materials containing <1% asbestos are not considered asbestos waste).
10. Remove asbestos waste and complete asbestos waste paperwork.
11. Record-keeping requirements associated with personal air monitoring, negative exposure assessment, and waste disposal will be provided to Simmons for their records.

10.3 Procedure for Asbestos Containing Materials

The work requirements are as follows:

1. Training (16-Hour O&M level).
2. Contractors must have a respirator program.
3. Submit an asbestos notification form to MADEP and obtain asbestos permits from BFD and BPHC. (Communicate with EH&S or Buildings and Grounds in advance).
4. Initial exposure monitoring.
5. Worker protection (suits, respirators, etc.).
6. Seal off area to prevent transmission of dust beyond the immediate work area.
7. Post asbestos warning signs.
8. Use wet methods (amended water).
9. Use HEPA-vacuums.
10. Prompt clean-up and disposal of waste and debris contaminated with asbestos in leak tight, labeled asbestos waste bag or containers. Waste must be double-bagged.
11. Remove asbestos waste and complete asbestos waste paperwork.
12. Record-keeping requirements associated with personal air monitoring, negative exposure assessment, and waste disposal will be provided to Simmons for their records.

10.4 Repair and Renovation Work

All scheduled clean-up, repair, and renovation work must first be cleared by the asbestos coordinator to ensure that asbestos-containing materials will not be disturbed. Examples of activities that qualify as a "disturbance" are listed below. If renovation and repair work cannot be accomplished without disturbing asbestos-containing materials, the asbestos coordinator will arrange for an asbestos contractor to

perform the work, or otherwise abate the asbestos so that Simmons personnel can safely perform the repair or renovation work.

Disturbances include, but are not limited to:

- Removing, sanding, cutting, hammering, or drilling through flooring, wall, fire door, and ceiling materials.
- Work that will disturb pipe and other mechanical or thermal systems insulation.
- Dry-sweeping mechanical rooms or areas that may contain asbestos materials.
- Dry-buffing or dry-stripping asbestos-containing flooring materials; (only wet stripping methods can be done using low abrasion pads at speeds below 300 rotations per minute).

10.5 Emergency Asbestos Work

Any incident that causes the release of asbestos fibers when proper containment measures are not in place is considered an emergency. Examples of emergencies are the discovery of asbestos debris on the floor; ceiling collapse, flooding, or water damage that causes asbestos floor tile to pop up and break; or a leak in a pipe insulated with asbestos. The asbestos coordinator will determine if the emergency can be resolved by O&M-trained employees. If it cannot, an asbestos contractor will be immediately called in. The Buildings and Grounds department must shut down the Heating Ventilation and Air Conditioning (HVAC) system to prevent asbestos fibers from contaminating other areas and, if possible, shut off the steam or water lines, if the emergency involves a leak. If there is reason to suspect that the HVAC system has been contaminated, an asbestos contractor will perform the work. While preparing to address the emergency, and/or while waiting for the asbestos contractor, Buildings and Grounds personnel must ensure their and others' safety by keeping untrained and unauthorized people from entering the asbestos emergency area.

11.0 WASTE DISPOSAL

This section outlines the requirements when generating asbestos-containing waste material (ACWM) per MADEP. When removing ACWM, handle in a manner that will minimize the risk of making it friable or releasing asbestos dust into the environment.

1. Adequately wet ACWM obtained from air cleaning or from removal operations.
2. While adequately wet, containerize and seal the ACWM in leak-tight containers.
3. Label the containers with the following information printed in letters of sufficient size and contrast so as to be readily visible and legible:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

4. In addition, each individual container and/or package of ACWM will be labeled prior to being transported off the site of generation with:

NAME OF WASTE GENERATOR
LOCATION AT WHICH THE WASTE WAS GENERATED
THE DATE OF GENERATION

NOTE: Bulk-loading of ACWM is not permitted without MADEP approval of a Non-traditional Asbestos Abatement Work Practice Application.

Generated waste is required to be shipped to a landfill permitted to accept ACWM using the MADEP **shipping record form, which is available on MADEP's webpage** (http://www.mass.gov/eea/docs/dep/air/approvals/aq/asb-wshipr.pdf). Haulers and others can print their own forms. Shipments that don't reach their destination must be tracked down and reported to MADEP. Waste records must be kept for at least two years after the form is signed by the disposal facility.

NOTE: If material containing any asbestos gets mixed with non-asbestos debris, then all must be handled as ACWM.

12.0 TRAINING

Simmons does not permit staff to engage in asbestos abatement activities. However, Simmons' staff associated with the Buildings and Grounds Department may work in areas where ACM or PACM is present. Contractors are responsible for training their staff and providing training documentation of proof to Simmons.

12.1 Asbestos Workers

The training requirements for various types of asbestos workers are summarized in Table 2. Contractors conducting asbestos work at Simmons must, where applicable, provide staff trained in accordance with the requirements outlined in Table 2.

Table 2

Type of Asbestos Worker	Initial Training	Refresher
Asbestos Worker	Four-day course	One-day course
Asbestos Supervisor	Five-day course	One-day course
Asbestos Inspectors	Three-day course	½ day course

Asbestos Management Planner	Two-day course	One-day course
Asbestos Project Designers	Three-day course	One-day course
Asbestos Project Monitor	Five-day course	One-day course
Asbestos Associated Project Workers	Two-day course	One-day course

12.2 Buildings and Grounds Department

Buildings and Grounds staff will receive general asbestos awareness training annually, which is at least two hours. New Buildings and Grounds staff will be trained within 60 days after first date of employment. Training will include but is not limited to:

- Information regarding asbestos and its various uses and forms.
- Information on the health effects associated with asbestos exposure.
- Locations of ACM identified throughout each building in which they work.
- Recognition of damage, deterioration, and delamination of ACM.
- Name and telephone number of the person designated within Simmons to manage the plan
- Availability and location of the management plan

Buildings and Grounds staff, who conduct any activities that will result in the disturbance of ACM, will receive additional training, which will consist of 14 hours of additional training. This training will include, but not be limited to:

- Descriptions of the proper methods of handling ACM.
- Information on the use of respiratory protection.
- Hands-on training in the use of respiratory protection, other personal protection measures, and good work practices.
- Definition of asbestos terms
- Sampling methods
- Test methods
- Quality assurance and quality control
- Interpretation of results

13.0 MEDICAL SURVEILLANCE

Since no asbestos activities are performed by Simmons' staff, there is no requirement for a medical surveillance program for asbestos at Simmons.

NOTE: EPA and OSHA require that a medical surveillance program be implemented for asbestos workers and employees, who are exposed to asbestos. In addition, OSHA requires medical surveillance program for employees, who are required to wear a respirator including N95 respirators.

14.0 RECORDS

The Buildings and Grounds Office will maintain asbestos related documentation including but not limited to:

- Training records
- Inspection Reports
- Building surveys
- Air monitoring data
- ACM waste disposal paperwork
- This document

In addition, the following will be maintained if required in the future:

- Pump calibration records
- Respirator fit testing
- Medical surveillance records

Below are the records' retention times for various documents:

- Exposure monitoring for asbestos – 30 years
- Worker medical surveillance – Duration of employment plus 30 years
- Asbestos worker training records – 15 years from the date of project or activity completion
- Asbestos waste disposal documents – Seven years

15.0 ANNUAL REVIEW

This document will be reviewed on an annual basis to ensure it is effective and functional. The review process will provide a forum to discuss the program and determine ways to improve it. The annual review will include the following at a minimum:

- Director of Buildings and Grounds
- At least one representative from the Simmons' staff, who come in contact with ACM and PACM as part of their job
- Director of EH&S

At a minimum, the review will include:

- A review of this document
- Results of inspections and audits
- A summary of corrective actions
- Changes in operations and regulations
- Future asbestos projects

Changes to this document will be recorded in the review table provided at the beginning of this document.

16.0 REFERENCES

Below are the references for this program:

- BPHC, Environmental Health Office, Asbestos Abatement Project Permit Application Instructions dated 6/18/2012
- MADEP, Bureau of Waste Prevention, Asbestos Information and Resource Guide dated January 2013
- Information provided on MADEP's asbestos webpage: http://www.mass.gov/eea/agencies/massdep/air/programs/asbestos.html viewed April through June 2015
- 310 CMR 7.15, Asbestos
- 310 CMR 19.000, Solid Waste Management
- 453 CMR 6.00, The Removal, Containment or Encapsulation of Asbestos
- MADEP's Presentations entitled "Revised MassDEP Asbestos Regulation" dated August 2014 and January 2015
- EPA's document "What is an Operations and Maintenance (O&M) Program?"
- Information provided on EPA's Asbestos webpage: http://www2.epa.gov/asbestos viewed April through June 2015
- 40 CFR 355 and 763
- Information provided on OSHA's Asbestos webpage: https://www.osha.gov/SLTC/asbestos/index.html viewed April through June 2015
- Boston College, "Asbestos Management Program", dated September 2004
- University of Massachusetts Amherst, "Asbestos Containing Material Environmental Management System Manual", dated March 2007
- Tufts University, "Asbestos Management Program", dated September 2005