


POLICY: Removing Filters in Air Handling Systems in Buildings Containing Asbestos Fireproofing			NUMBER: WP-57
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PREPARED BY: Facilities Management (FM)	AUTHORIZED BY:  Andrew Konowalchuk	CLASSIFICATION: Work Procedure	EFFECTIVE: November 14, 2024
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PART ONE: GENERAL

i. General

- The following Type 2 varied procedure is to be followed when changing disposable filters in Heating Ventilation and Air Condition (HVAC) equipment (i.e. Air Handling Units, AHUs) at the Social Science Centre.
- The work is classified as a Type 2 operation under Section 12(3)10 of the Ontario Asbestos Regulation 278/05 (O.Reg. 278/05) as asbestos-containing fireproofing is present within the building. However, in order to determine appropriate procedures, testing has been performed by Western University, which indicates that the varied measures and procedures provide equivalent protection for the workers, as required by Section 23 of O.Reg. 278/05.
- The varied procedures include: specific worker training in the varied procedures, varied personal protection equipment, varied worker decontamination procedures, varied site isolation procedures and varied disposal requirements.
- This varied procedure has been prepared solely for Western University and may be distributed to contractors properly trained and qualified to perform asbestos work that they retain to perform the work outlined in this procedure.

iii. Instruction and Training

- Provide instruction and training to all workers, which should include the following:
 - Hazards of asbestos.
 - Use, care and disposal of protective equipment (including but not limited to respirators and filters) and clothing that may be used and worn during work outlined in this varied procedure, including:
 - Limitations of equipment.
 - Inspection and maintenance of equipment.
 - Proper fitting of equipment.
 - Disinfecting and cleaning of equipment.
 - Personal hygiene to be followed when performing the work.
 - The measures and procedures prescribed by this procedure.
 - Instruction and training must be provided by a competent person.

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<p>iv. Personal Protection</p> <ul style="list-style-type: none"> • Asbestos Personal Protection Equipment (PPE) is not required, unless it is requested by the worker, where asbestos PPE is requested by the worker then the following should be provided: <ul style="list-style-type: none"> ○ Non-powered half-face respirators with P100 high efficiency (HEPA) cartridge filters. ○ Disposable protective clothing. • Where respiratory protection is requested by the worker, respirators shall be: (in accordance with Western's Respiratory Protective Equipment Program) <ul style="list-style-type: none"> ○ Certified by the National Institute of Occupational Safety and Health (NIOSH) or other testing agency acceptable to the Ministry of Labour. ○ Fitted so that there is an effective seal between the respirator and the worker's face. Ensure that no person required to enter an Asbestos Work Area has facial hair which affects the seal between respirator and face. ○ Assigned to a worker for their exclusive use. ○ Maintained in accordance with manufacturer's specifications. ○ Cleaned, disinfected and inspected by a competent person after use on each shift, or more often if required. ○ Repaired or have damaged or deteriorated parts replaced. ○ Stored in a clean and sanitary location. ○ Provided with new filters as necessary, according to manufacturer's instructions. ○ Worn by personnel who have been fit tested by qualitative or quantitative fit-testing. Instruction must be provided by a competent person as defined by the Occupational Health and Safety Act. • Where protective clothing is requested by the worker, provide protective clothing which: <ul style="list-style-type: none"> ○ Is made of a material that does not readily retain nor permit penetration of asbestos fibres. ○ Consists of head covering and full body covering that fits snugly at the ankles, wrists and neck. ○ Is replaced or repaired if torn or ripped. • Prohibit smoking, eating, drinking, chewing in the Asbestos Work Area. <p><u>PART TWO: EXECUTION</u></p> <p>Site Preparation and General Procedures</p> <ol style="list-style-type: none"> 1. Prior to installing site protection, pre-clean all surfaces outside the HVAC equipment where 	

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<p>possible without disturbing asbestos-containing materials using a HEPA vacuum or damp cloth.</p> <ol style="list-style-type: none"> 2. Shut down the HVAC equipment to be serviced. 3. Lock-out/tag-out HVAC equipment as per Facilities Management’s work procedure WP-18 4. Ensure adequate lighting is available within the work area. 5. Install signage in clearly visible locations, at all entrance points to the Work Area and in sufficient numbers to adequately warn unprotected workers of an asbestos dust hazard. Restrict access within 10’ of work area to only personnel performing the work. 6. Place required equipment and materials in the Work Area. 7. Maintain Work Area in tidy condition. Do not track dirt or dust to adjacent areas outside of the Work Area. 8. Do not use compressed air to clean or remove dust or debris. <p>Changing Disposable Filters in HVAC Equipment</p> <ol style="list-style-type: none"> 1. If necessary, wet all disposable HVAC filters being removed with amended water in order to control the spread of dust. 2. Remove disposable HVAC filters, place directly into boxes formerly containing replacement filters to be installed in the HVAC equipment, or clear 6 mil polyethylene disposal bags. 3. Once the removed filters have been placed into boxes or disposal bags, either seal the top flap of the boxes or the disposal bags with tape. 4. Dispose of removed filters sealed in the boxes or disposal bags as clean waste. 5. Install new filters prior to reactivating the HVAC equipment. <p>Clean-Up and Dismantling</p> <ol style="list-style-type: none"> 1. Clean Work Area, polyethylene sheeting and drop sheets used, equipment, tools, etc. using a HEPA vacuum or wet wiping methods. 2. Remove caution tape barrier, signage, temporary lighting (i.e. where used), etc. 3. Proceed to designated washroom or sink and wash hands and face. <p>Re-activation of Equipment</p> <ol style="list-style-type: none"> 1. Upon completion of work, complete the following: <ol style="list-style-type: none"> a. Remove locks and tags from electrical panel and re-energize the HVAC equipment being serviced. b. Conduct a general cleaning of the Work Area using wet mop methods or by using a HEPA vacuum. 	

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<p><u>PART 3: PRODUCTS AND FACILITIES</u></p> <p>Materials and Equipment</p> <ul style="list-style-type: none"> • <u>Amended Water:</u> Water with wetting agent added for purpose of reducing surface tension to allow thorough wetting of ACM. • <u>HEPA Vacuum:</u> High Efficiency Particulate Arresting (HEPA) filtered vacuum equipment with a filter system capable of collecting and retaining spherical particles greater than 0.3 microns at 99.97% efficiency. • <u>Polyethylene Sheeting:</u> 6 mil (0.15 mm) minimum thickness unless otherwise specified in sheet size to minimize joints. New materials only. • <u>Protective Clothing:</u> Disposable full body coveralls complete with hoods manufactured of a material which does not permit penetration of asbestos fibres. Coveralls that fit snugly at ankles, wrists and neck. Acceptable materials: Dupont Tyvek or Kimberly Clark Kleenguard. • <u>Sprayer:</u> Garden type portable manual sprayer or water hose with spray attachment if suitable. • <u>Tape:</u> Duct tape or tape suitable for sealing polyethylene to surfaces under both dry and wet conditions in the presence of Amended Water. <p>Signage</p> <ul style="list-style-type: none"> • <u>Work Area Signs:</u> Post signs at access points to the Work Area. <p>Waste and Material Handling</p> <ul style="list-style-type: none"> • Transport waste and materials via the predetermined routes and exist to general landfill receptacles. <p><u>PART 4: APPLICABLE REGULATIONS</u></p> <p>Regulations</p> <ul style="list-style-type: none"> • Comply with Federal, provincial, and local requirements, provided that in any case of conflict among those requirements or with this varied procedure the more stringent requirements shall apply. Work shall be performed under regulations in effect at the time work is performed. Regulations include but are not limited to the following: <ul style="list-style-type: none"> ○ Ministry of Labour Occupational Health and Safety Act Regulations for Construction Projects including Revised Statutes of Ontario 1990, Chapter 0.1 and Ontario Regulation 278/05. ○ Ministry of Transportation Regulations for the transport of asbestos waste, 	

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<p>including the Transportation of Dangerous Goods Act.</p> <ul style="list-style-type: none"> ○ Ministry of the Environment Regulations for the disposal of asbestos waste, including R.R.O. 1990, Reg. 347 as amended. <p><u>REFERENCES:</u></p> <p>Western University Respiratory Protective Equipment Program https://www.uwo.ca/hr/form_doc/health_safety/doc/policies/respirator_policy.pdf</p> <p>WP-18: Lock-Out/Tag-Out https://uwo.ca/fm/pdf/policies/work_procedures/WP-18_Lock-out_Tag-out.pdf</p> <p>O. Reg. 278/05: Designated Substance https://www.ontario.ca/laws/regulation/050278</p>	