

7.15: U Asbestos

(1) Definitions. The definitions set forth at 310 CMR 7.00 apply to 310 CMR 7.15 unless otherwise defined in 310 CMR 7.15(1). The following words and phrases shall have the following meanings as they appear in 310 CMR 7.15. If a term is defined both in 310 CMR 7.00 and in 310 CMR 7.15(1), then the definition in 310 CMR 7.15(1) applies for purposes of 310 CMR 7.15.

ADEQUATELY WET or ADEQUATELY WETTED means fixing or coating with water (or water to which a surfactant has been added), amended water or a remover-encapsulant, so as to prevent a friable condition and visible emissions. Material shall be considered adequately wetted where it has been fixed or coated with water (or water to which a surfactant has been added), amended water or a remover-encapsulant, so as to prevent a friable condition and visible emissions.

AHERA means the Asbestos Hazard Emergency Response Act, 15 U.S.C. 2646 *et seq.*, and the regulations promulgated thereunder, including 40 CFR Part 763.

AMENDED WATER means water to which a wetting agent has been added.

ASBESTOS means all asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthophyllite, actinolite, and tremolite, and any other asbestiform minerals designated as asbestos by EPA in 40 CFR 61.141.

ASBESTOS ABATEMENT ACTIVITY means the removal, encapsulation, demolition, renovation, enclosure, repair, disturbance, handling, transportation, storage, or disposal of asbestos-containing material or asbestos-containing waste material or any other activity involving asbestos-containing material or asbestos-containing waste material that has the potential to result in a condition of air pollution. ASBESTOS ABATEMENT ACTIVITY does not include survey, sampling, analysis, monitoring, or visual inspection activities.

ASBESTOS ANALYTICAL SERVICES means services provided by a person certified by the Commonwealth pursuant to 453 CMR 6.08: *Certification and Other Requirements for Asbestos Analytical Services* which include, but are not limited to, the counting or enumeration of asbestos fibers in the air (air monitoring analysis) and the identification and quantification of asbestos in materials (bulk sample analysis) in connection with any asbestos hazard assessment, facility inventory, exposure measurement, abatement activity or associated activity.

ASBESTOS-CONTAINING MATERIAL (ACM) means any material containing 1% or more asbestos as determined by a laboratory using protocols set forth in the *Method for the Determination of Asbestos in Bulk Building Materials* found in EPA report EPA/600/R-93/116, or another method as directed by the Department. ASBESTOS-CONTAINING MATERIAL (ACM) includes, but is not limited to, sprayed-on and troweled-on materials applied to ceilings, walls, and other surfaces; insulation on pipes, boilers, tanks, ducts, and other equipment, structural and non-structural members; tiles; asphalt roofing or siding materials; or asbestos-containing paper.

ASBESTOS-CONTAINING WASTE MATERIAL (ACWM) means any ACM removed during a demolition or renovation project and anything contaminated with asbestos in the course of a demolition or renovation project including, but not limited to, asbestos waste from control devices, bags or containers that previously contained asbestos, contaminated clothing, materials used to enclose the work area during the demolition or renovation operation, and demolition or renovation debris. ASBESTOS-CONTAINING WASTE MATERIAL (ACWM) shall also include ACM on and/or in facility components that are inoperable or have been taken out of service and any ACM that is damaged or deteriorated to the point where it is no longer attached as originally applied or is no longer serving the intended purpose for which it was originally installed.

ASBESTOS CONTRACTOR means any person who has a valid license issued by the Commonwealth pursuant to 453 CMR 6.05: *Licensure of Asbestos Contractors* for the purpose of entering into or engaging in asbestos abatement activity.

ASBESTOS INSPECTOR means any person certified by the Commonwealth pursuant to 453 CMR 6.07: *Certification of Consultants* who identifies, assesses the condition of, or collects pre-abatement samples of ACM.

ASBESTOS PROJECT MONITOR means any person certified by the Commonwealth pursuant to 453 CMR 6.07 who:

- (a) Collects air and bulk samples and performs visual inspections for the purpose of determining asbestos project completion;
- (b) Collects environmental asbestos air samples for the purpose of assessing present or future potential for exposure to airborne asbestos; or
- (c) Functions as the on-site representative of the facility owner or other persons by overseeing the activities of the asbestos contractor.

ASBESTOS SURVEY REPORT means a written report resulting from a thorough inspection using EPA approved procedures and methods, or an alternate asbestos inspection method that has received prior written approval from the Department, to determine whether materials or structures to be worked on, renovated, removed or demolished (including materials on the outside of structures) contain asbestos.

BULK LOADING means the placement of unconfined ACWM in a vehicle or container, such as a roll-off, dumpster or truck in *lieu* of packaging the ACWM in individual leak tight containers.

CONTAINERIZE means to place into sealed containers which will prevent leakage of solids, including dust, and liquids.

DEMOLITION, for the purposes of 310 CMR 7.15, means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

DISTURBANCE means a physical disruption of the matrix of an ACM which predisposes the material to release fibers or to generate asbestos-containing dust or debris.

DUMPING GROUND, for the purpose of 310 CMR 7.15, means a facility or place used for the disposal of ACWM from one or more sources which is not established or maintained pursuant to a valid site assignment and permit in accordance with M.G.L. c. 111, § 150A, 310 CMR 16.00: *Site Assignment Regulations for Solid Waste Facilities* or 310 CMR 19.000: *Solid Waste Management*.

EMERGENCY RENOVATION OPERATION means a renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. EMERGENCY RENOVATION OPERATION includes operations necessitated by nonroutine failures of equipment.

ENCAPSULATION means the application of a coating or liquid sealant to ACM to reduce the tendency of the material to release fibers.

ENCLOSURE means the covering or wrapping of friable ACM in, under or behind air-tight barriers.

FACILITY means any dumping ground, or any installation, structure, building establishment or ship, and associated equipment.

FRIABLE means material that, when dry, can be crumbled, shattered, pulverized or reduced to powder by hand pressure.

FRIABLE ASBESTOS-CONTAINING MATERIAL (FRIABLE ACM) means any ACM, that, when dry, can be crumbled, shattered, pulverized or reduced to powder by hand pressure or any non-friable ACM that has been subjected to sanding, grinding, cutting, or abrading or has been crumbled, shattered or pulverized by mechanical means such as, but not limited to, the use of excavators, bulldozers, heavy equipment, or power and/or hand tools.

GLOVE BAG or GLOVEBAG means a manufactured plastic bag-type of enclosure with built-in gloves, which is placed with an air-tight seal around a facility component which permits ACM in or on the facility component to be removed without releasing asbestos fibers into the atmosphere.

HEPA FILTRATION means high efficiency particulate air filtration capable of filtering 0.3 micron particles with 99.97% efficiency.

INCIDENTAL MAINTENANCE PROJECT OR WORK means any asbestos abatement activity conducted in accordance with the applicable work practice standards set forth in 310 CMR 7.15 and which involves the removal or disturbance of:

- (a) 100 square feet or less of asbestos-containing floor tile and related asbestos-containing mastics; and/or
- (b) 32 square feet or less of asbestos-containing gypsum wallboard and/or joint compound.

LEAK-TIGHT means a condition under which solids, including dust, and liquids cannot escape or spill out of a container.

NON-FRIABLE means material that, when dry, cannot be crumbled, shattered, pulverized or reduced to powder by hand pressure.

NON-FRIABLE ASBESTOS-CONTAINING MATERIAL (NON-FRIABLE ACM) means any ACM that, when dry, cannot be crumbled, shattered, pulverized or reduced to powder by hand pressure and that has not been subjected to sanding, grinding, cutting, or abrading and has not been crumbled, shattered, or pulverized by mechanical means such as, but not limited to, the use of excavators, bulldozers, heavy equipment, or power and/or hand tools.

OSHA means the Occupational Safety and Health Administration of the United States Department of Labor.

OWNER-OCCUPIED, SINGLE-FAMILY RESIDENCE means any single unit building containing space for uses such as living, sleeping, preparation of food, and eating that is used by a single family which owns the property both prior to and after renovation or demolition. OWNER-OCCUPIED, SINGLE-FAMILY RESIDENCE includes houses, mobile homes, trailers, detached garages, houseboats, and houses with a “mother-in-law apartment” or “guest room”. OWNER-OCCUPIED, SINGLE-FAMILY RESIDENCE does not include rental property, multiple-family buildings, mixed use commercial/residential buildings or structures used for fire training exercises.

OWNER/OPERATOR means any person who:

- (a) has legal title, alone or with others, of a facility or dumping ground;
- (b) has the care, charge, or control of a facility or dumping ground, or
- (c) has control of an asbestos abatement activity, including but not limited to contractors and subcontractors.

RENOVATION, for the purposes of 310 CMR 7.15, means altering a facility or one or more facility components in any way, including the stripping or removal of ACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are “demolitions”.

SAMPLING means the process of obtaining portions of materials suspected of containing asbestos, including the taking of bulk portions of materials for analysis to determine composition, and the collection of air for the purposes of measuring the presence of asbestos.

SURVEY means any pre-demolition or pre-renovation activity undertaken at a facility for the purpose of determining the presence, location, amount, and condition of ACM or material assumed to contain asbestos. Activities including but not limited to the following do not meet the requirements for a survey pursuant to 310 CMR 7.15:

- (a) 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  
(b) Inspections, surveillance and testing conducted for the purpose of compliance with AHERA.

SUSPECT ASBESTOS-CONTAINING MATERIAL means products that have a reasonable likelihood of containing asbestos based upon their appearance, composition and use. SUSPECT ASBESTOS-CONTAINING MATERIAL includes, but is not limited to, non-fiberglass insulation (e.g. pipe, boiler, duct work, etc.), cement/transite shingles, vinyl floor and wall tiles, vinyl sheet flooring, plaster, cement/transite pipes, cement sheets (corrugated and decorative), ceiling tiles, cloth vibration dampers or ductwork, spray-on fire proofing, mastic (flooring or cove base adhesive or damp proofing), and asphalt roofing or siding materials (shingles, roofing felts, tars, etc.).

VISIBLE DEBRIS means any visually detectable particulate residue, such as dust, dirt or other extraneous material which may or may not contain asbestos.

WASTE SHIPMENT RECORD means the shipping document, required to be originated and signed by the owner/operator, used to track and substantiate the disposition of ACWM.

WORK AREA means the area or location where any asbestos abatement activity or incidental maintenance work is being performed, including but not limited to: areas used for accessing the location where asbestos abatement, asbestos-associated project work or incidental work is being performed; areas used for the storage of equipment or removed materials related to asbestos abatement activity; and other areas of a facility or location in which the Department determines that such asbestos abatement activity has been or may be an actual or potential cause of a condition of air pollution.

WORK PRACTICE STANDARDS means the standards, procedures or actions for the removal, enclosure or encapsulation of asbestos, or for the demolition, renovation, maintenance or repair of facilities containing asbestos.

WORKING DAY means any day that the Massachusetts Department of Environmental Protection is open for business.

(2) Applicability.

- (a) 310 CMR 7.15 applies to any persons engaged in asbestos abatement activities or associated activities or actions set forth in 310 CMR 7.15(3), and to activities associated with such asbestos abatement activities, including, but not limited to, notifications, surveys, visual inspections, and recordkeeping.
- (b) Nothing in 310 CMR 7.15 shall relieve any person from complying with all other applicable federal, state and local laws and regulations, including, but not limited to, 42 U.S.C.A. § 7412 (the Clean Air Act) and 40 CFR, Part 61, Subpart M (the Asbestos National Emission Standard for Hazardous Air Pollutants); and M.G.L. c. 149, §§6A-6F (statutes authorizing the Department of Labor Standards to regulate asbestos) and 453 CMR 6.00: *The Removal, Containment or Encapsulation of Asbestos.*

(3) Prohibitions.

- (a) No person shall:
1. Violate or cause, suffer, allow or permit a person to violate any requirement set forth in 310 CMR 7.15; or
  2. Cause, suffer, allow, or permit any asbestos abatement activity which causes or contributes to a condition of air pollution; or
  3. Cause, suffer, allow, or permit any asbestos abatement activity which poses an actual or potential threat to human health, safety and welfare or to the environment.
- (b) No person shall prevent access to ACM for subsequent removal.
- (c) No person shall spray ACM on any facility or facility component.
- (d) No person shall apply an encapsulant to severely damaged or deteriorated ACM.
- (e) No person shall install or reinstall asbestos-containing insulating material on a facility or facility component or install or reinstall a facility component that contains asbestos-containing insulating material.
- (f) No person shall abandon or leave inoperable or out-of-service facility components that contain ACM, that are not in compliance with 310 CMR 7.15(3)(g), and are located above ground or have been exposed by excavation on site. Inoperable or out-of-service facility components containing ACM and located underground do not need to be removed unless they are disturbed or uncovered by excavation.
- (g) No person shall fail to maintain ACM that is located above ground, in a facility or that is uncovered by excavation in good condition and serving the intended purpose for which it was originally installed.
- (h) No person shall make, or cause any other person to make, any false, inaccurate, incomplete or misleading statement(s) in any notification or any other record or report submitted to or required by the Department pursuant to 310 CMR 7.15. Each owner/operator of a facility subject to any asbestos abatement activity shall notify the Department in writing immediately but in no event more than 24 hours after the discovery of any false, inaccurate, incomplete or misleading statement(s) in any such notification or other record or report submitted to or required by the Department pursuant to 310 CMR 7.15.

(4) Survey Requirements.

With the exception of the owner of an Owner-Occupied, Single-Family Residence who performs asbestos abatement activities at the owner's residence involving solely non-friable ACM, the owner/operator of a facility or facility component that contains suspect ACM shall, prior to conducting any demolition or renovation, employ or engage an asbestos inspector to thoroughly inspect the facility or facility component, or those parts thereof where the demolition or renovation will occur, to identify the presence, location, amount and condition of any ACM or suspect ACM and to prepare a written asbestos survey report. The survey shall identify and assess suspect ACM located in all areas that will be breached or otherwise affected by demolition or renovation activities, including, but not limited to wall cavities, areas above ceilings and under/between multiple layers of flooring. Public and private utility owners/operators of underground cement pipes in their system networks shall comply with the provisions of 310 CMR 7.15(12A)(b). in lieu of 310 CMR 7.15(4).

- (a) The written asbestos survey report shall describe the demolition or renovation operation to be undertaken and identify the types, amounts, condition and locations of all ACM present. The written asbestos survey report shall also include the following:
1. The date(s) of the survey of the facility;
  2. The printed name, business address, business telephone number, certification number and signature of the asbestos inspector who conducted the survey and prepared the report; and
  3. A description of the manner used to determine the sampling locations.
- (b) The written asbestos survey report shall also contain an inventory of the exact locations of the ACM or suspect ACM from which samples were collected, analytical results of all samples taken, the date(s) such samples were collected, the name(s) of the persons who provided asbestos analytical services, and a blueprint, site map, diagram or written description of the facility and locations(s) thereof subject to demolition or renovation. This documentation shall clearly identify each location subject to demolition and/or renovation and the corresponding footage (square and/or linear) of any ACM or suspect ACM in each location.
- (c) Any suspect ACM that is not sampled and tested for the presence of asbestos must be handled and disposed of as if it were ACM and must be identified as ACM in the asbestos survey report.
- (d) The owner/operator of a facility or facility component shall maintain a copy of the written asbestos survey report available at the facility for review by or submittal to the Department upon request at all times during the asbestos abatement activities and shall preserve and maintain such report at the facility for at least two years following the completion of said activities. If the facility is unstaffed or in the event that the facility is demolished, the owner/operator shall preserve and maintain the written asbestos survey report at its regular place of business.

- (5) Removal Requirements. The owner/operator of a facility or facility component shall:
- (a) Remove and dispose of any ACM in accordance with 310 CMR 7.15, prior to conducting any demolition and/or any renovation thereof; and
  - (b) Remove or encapsulate any friable ACM that has been or will be exposed or created as a result of any demolition or renovation, in accordance with 310 CMR 7.15(7).

(6) Notification Requirements.

Unless specifically exempted under the provisions of 310 CMR 7.15(6)(f), or if notification is being made under the terms of an approved facility blanket notification pursuant to 310 CMR 7.15(6)(j), the owner/operator of a facility or facility component shall notify the Department and obtain Department authorization prior to conducting any asbestos abatement activity, as follows:

- (a) Each owner/operator shall ensure that a fully completed asbestos notification form, including any applicable fee, is received by the Department at least ten working days prior to the commencement of the asbestos abatement activity;
- (b) An asbestos notification form shall be deemed accepted by the Department unless the person submitting said asbestos notification form is notified in writing by the Department of deficiencies in the asbestos notification form within ten calendar days of the Department's receipt of said form;
- (c) The Department's acceptance of said asbestos notification form shall constitute the Department's authorization for the asbestos abatement activity described in the asbestos

notification form to be conducted in compliance with all applicable provisions of 310 CMR 7.15;

- (d) The start date on the asbestos notification form shall encompass the time required for set-up of the area where such asbestos abatement activity will occur, including any pre-cleaning and installation of polyethylene sheeting required by 310 CMR 7.15(7)(c); and
- (e) Notification shall be made only by use of the Department approved asbestos notification form, and shall include all required information, be accompanied by the applicable fee, and be legible. An incomplete or illegible notification form will not be accepted and any asbestos abatement activity described therein will not be deemed authorized by the Department or in compliance with 310 CMR 7.15.
- (f) Notification Exemptions. The following activities shall not be subject to the notification requirements of 310 CMR 7.15(6)(a) through (e):
  1. Notification Exemption for Exterior Asbestos-Containing Cementitious Shingles, Sidings and Panels: The removal or disturbance of 100 square feet or less of exterior asbestos-containing cementitious shingles, sidings and panels, provided that the applicable requirements of 310 CMR 7.15(12) are met.
  2. Notification Exemption for Asbestos Incidental Maintenance Projects or Work: The removal or disturbance of asbestos-containing floor tile, and asbestos mastics or asbestos-containing gypsum wallboard/joint compound systems, provided that the applicable requirements of 310 CMR 7.15(13) are met.
  3. Notification Exemption for Owner of Owner-Occupied, Single-Family Residence: The owner of an Owner-Occupied, Single-Family Residence who performs asbestos abatement activities at the owner's residence involving solely non-friable ACM; provided that the abatement activity does not cause the non-friable ACM to become friable ACM and provided that the asbestos abatement activity is not required to be conducted by a Licensed Contractor pursuant to 453 CMR 6.00: *The Removal, Containment or Encapsulation of Asbestos*. This exemption does not apply to the removal or disturbance of greater than 100 square feet of exterior asbestos-containing cementitious shingles, siding and panels.
- (g) Notification Revision Procedures. Notification date changes shall be made as follows:
  1. The original start date on a notification form that has been submitted to and accepted by the Department in compliance with 310 CMR 7.15(6)(a) and (b) may be revised (i.e. moved forward or postponed), and asbestos abatement activity may start on said revised date provided that a revised notification form is received and accepted by the Department at least 10 working days prior to the new start date for the asbestos abatement activity and provided that the revision is properly submitted to and accepted by the Department prior to the start date for the asbestos abatement activity listed on the original notification form.
  2. If the asbestos abatement activity will end earlier than the end date listed on the original notification form, the Department must receive a revised notification form identifying the change no later than 24-hours prior to the revised end date for the activity.
  3. The asbestos abatement activity end date set forth in the original notification form may be extended to allow additional time to complete the specific asbestos abatement activity identified on the original notification. In such cases, the person who submitted the original notification form shall revise the original notification form and specify a new end date provided that the end date specified in the original notification form has not passed.

4. If asbestos abatement activities are not continuous and will occur at intermittent times within the notified asbestos abatement work period identified on the notification form, the person who submitted the original notification shall inform the applicable Department regional office in writing, via fax, email or hand delivery, of the specific dates and times when the asbestos abatement activities will suspend and resume. The person who submitted the original notification form shall provide the Department with such notice a maximum of 24 hours following suspension of work and a minimum of 24 hours prior to resuming asbestos abatement activities.
- (h) Multiple Building Abatements. Separate notification forms shall be submitted to and accepted by the Department at least ten working days in advance of any asbestos abatement activity for each building and/or structure in which asbestos abatement activities will occur.
- (i) Waiver of the Advance Notification Period.
1. The Department may approve, at its sole discretion, a waiver of the ten working day advance notification period under the following circumstances and situations:
    - a. 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; or
    - b. an emergency renovation operation.
  2. Requests for approval of an advance notification waiver shall be made to the applicable Department regional office.
  3. When approved by the Department, the waiver shall apply only to the ten working day advance notification period. All other requirements of 310 CMR 7.15 shall continue to fully apply to asbestos abatement activities for which such notification waiver has been approved.
  4. If the Department approves such a waiver, the person receiving the waiver shall provide notification regarding all asbestos abatement activities to the Department on the Department approved asbestos notification approval form (ANF 001) within 24-hours of commencement of the asbestos abatement activities, including set-up or on-site preparation activities.
- (j) Facility Blanket Notification. An owner/operator may apply to the Department for approval of a blanket notification covering multiple asbestos abatement projects for limited maintenance projects involving less than 10 linear feet of ACM on pipe or 25 square feet of ACM on other facility components at a facility; or for large scale planned asbestos abatement projects at a facility; or for work in individual contiguous utility system networks owned by public or private utilities involving up to 25 linear feet of ACM on pipe or up to 60 square feet of ACM on other facility components at a facility.
1. Blanket notification applications shall be submitted on Department approved forms, shall include all required information and any additional information requested by the Department, shall be accompanied by the appropriate fee, and shall be legible.
  2. Blanket notification approvals may be granted for a period not to exceed 12 months at the Department's discretion and when granted the terms of the approval shall be facility-specific.
  3. The Department's receipt and acceptance of a blanket notification application shall not constitute approval thereof. The Department will issue a written approval or denial of the application at its discretion.
  4. Individual notifications shall be submitted to the Department before the start of each project or project segment thereof conducted under an approved Facility Blanket

notification. The approval of an application for a Facility Blanket notification shall have the effect of waiving the ten working day advance notification period for each individual project or project segment conducted under said Facility Blanket approval. However, each approval of an application for a Facility Blanket notification shall establish an advance notification period that shall apply to the individual project(s) or project segment(s) conducted under that specific approval.

(7) General Asbestos Abatement Work Practice Standards.

Unless otherwise exempted under 310 CMR 7.15(9): *Requirements for Asbestos Glovebag Operations*; 310 CMR 7.15(10): *Requirements for the Removal of Asbestos-Containing Asphaltic Roofing and Siding Materials*; 310 CMR 7.15(11): *Requirements for Window Painting and/or Repair Work that Result in the Disturbance of Asbestos-Containing Glazing and Caulking Compounds*; 310 CMR 7.15(12): *Requirements for Exterior Asbestos-Containing Cementitious Shingles, Sidings and Panels*; or 310 CMR 7.15(13): *Work Practice Requirements for Asbestos Incidental Maintenance Projects*, the owner/operator of a facility or facility component where any asbestos abatement activity is conducted shall ensure that the work practice standards listed below are followed.

(a) No Visible Emissions. No visible emissions shall be discharged to the outside air during the collection, processing, packaging, or transporting of any ACM or ACWM.

(b) Required Use of Asbestos Contractors. Except as allowed by 453 CMR 6.14(1)(a): *Exception to Licenseing Requirement for Entities Conducting Response Action in their Own Facilities*, only asbestos contractors licensed pursuant to 453 CMR 6.00: *The Removal, Containment or Encapsulation of Asbestos* shall carry out asbestos abatement activities.

(c) Work Area Preparation Requirements to prevent emissions to the ambient air.

1. Shutdown of HVAC Systems. The facility heating, ventilation and air-conditioning (HVAC) systems in the work area shall be shut down, locked out and isolated.
2. Removal of Moveable Objects. All moveable objects shall be removed from the work area prior to commencement of asbestos abatement work. Items to be reused which may have been contaminated with asbestos shall be decontaminated by HEPA vacuuming or wet cleaning prior to their being removed from the work area.
3. Covering of Non-Moveable Objects. All non-moveable or fixed objects remaining within the work area shall be wrapped or covered with six mil thick (minimum) plastic sheeting and completely sealed with duct tape or the equivalent.
4. Isolation of Work Area. Prior to the commencement of any asbestos abatement activity, the work area shall be isolated in accordance with the requirements of 310 CMR 7.15(7)(c)4. to prevent emissions to the ambient air. The work area shall be isolated by sealing all openings, including but not limited to, windows, doors, ventilation openings, drains, grills, and grates with six mil thick (minimum) plastic sheeting and duct tape or the equivalent. For asbestos abatement activities defined at 310 CMR 7.15(1), large openings such as open doorways, elevator doors, and passageways shall be first sealed with solid construction materials, such as plywood over studding, which shall constitute the outermost boundary of the asbestos work area. All cracks, seams and openings in such solid construction materials shall be caulked or otherwise sealed, so as to prevent the movement of asbestos fibers out of the work area.
5. Covering of Floor and Wall Surfaces. Except as listed in 310 CMR 7.15(7)(c)5.a.-c., floor and wall surfaces shall be covered with plastic sheeting. All seams and joints shall be sealed with duct tape or the equivalent. Floor covering shall consist of at least two

layers of six mil thick plastic sheeting, with the edges up-turned to cover at least the bottom 12 inches of the adjoining wall(s). Wall covering shall consist of a minimum of two layers of four mil thick plastic sheeting. Wall covering shall extend from ceiling to floor and overlap the up-turned floor coverings without protruding onto the floor. Duct tape or the equivalent shall be used to seal the seams in the plastic sheeting at the wall-to-floor joints.

- a. Exception to Covering Requirement Where Surfaces Are Impervious. Compliance with 310 CMR 7.15 (7)(c)5. is not required where floors and walls are covered by ceramic tile or other impervious materials that are free from holes, drains, cracks, fissures or other openings and which may be thoroughly decontaminated by washing at the conclusion of the work, provided that such action does not result in the passage of asbestos fibers from the work area.
  - b. Exception to Covering Requirement for Abatement Surfaces. Compliance with 310 CMR 7.15(7)(c)5. is not required for those floor, ceiling and wall surfaces from which asbestos coverings are removed.
  - c. Exception to Wall Surface Covering Requirement Where Glovebags are Used. Covering of wall is optional for asbestos abatement activities where glovebags are used as the sole means of removal or repair, provided that the work area is isolated in accordance with 310 CMR 7.15(7)(c)4, that all moveable objects in the work area are removed in accordance with 310 CMR 7.15 (7)(c)2, that immovable objects remaining in the work area are covered in accordance with 310 CMR 7.15(7)(c)3, and that all other relevant requirements of 310 CMR 7.15(7)(c)1 - 4 are met. Where glovebags are used, the floor of the work area shall be covered with a minimum of one layer of six mil-thick plastic sheeting.
6. Covering of Ceiling Surfaces. Ceiling surfaces within the work area shall be covered with a minimum of two layers of four mil thick plastic sheeting or shall be cleaned and decontaminated by wet wiping and HEPA vacuuming in accordance with 310 CMR 7.15(7)(f)4.

(d) Equipment Decontamination Requirements.

No equipment, supplies or materials (except properly containerized waste material) shall be removed from an asbestos work area unless such equipment, supplies or materials have been thoroughly cleaned and are free of asbestos debris. Where decontamination is not feasible, such materials shall be wrapped in a minimum of two layers of six-mil thick polyethylene sheeting with all joints, seams and overlaps sealed with duct tape or equivalent, or containerized in a metal, plastic or fiber drum with a locking lid. Said wrapped equipment, supplies or materials shall be labeled as being ACWM prior to removal from the work area. HEPA vacuums shall be emptied of contents prior to removal from the work area. Air filtration devices shall have used pre-filters removed and replaced with fresh filters prior to removal from the work area. Used HEPA filters and pre-filters shall be disposed of as ACWM.

(e) Requirements for Work Area Ventilation System.

1. A HEPA-filtered work area ventilation system shall be used to maintain a reduced atmospheric pressure of at least -0.02 column inches of water pressure differential within the contained work area.
2. The HEPA system shall be in operation at all times from the commencement of the asbestos project until the requirements of 310 CMR 7.15(8) have been met.

3. The ventilation equipment utilized shall be of sufficient capacity to provide a minimum of four air changes per hour and shall be equipped with an operating alarm system capable of indicating when the unit is not working properly, and utilizing a clean filter specified for that unit and capable of filtering 0.3 micron particles with 99.97 % efficiency.
    - a. No later than June 20, 2017 the operating alarm system shall be an audible and visual alarm system capable of indicating the unit is working properly, and utilizing a clean filter specified for that unit and capable of filtering 0.3 micron particles with 99.97 % efficiency.
  4. The HEPA system units shall be operated in accordance with Appendix J of EPA Guidance Document EPA 560/5-85-024.
  5. Make-up air entering the work area shall pass through the decontamination system.
  6. Exhaust air shall be HEPA-filtered before being discharged outside of the work area.
    - a. Exhaust air tubes or ducts associated with the work area ventilation system shall be free of leaks.
    - b. Whenever feasible, exhaust air shall be discharged to the outside of the building. If access to the outside is not available, exhaust air may be discharged to an area within the building, but in no case shall exhaust air be discharged into any occupied areas of the building or into any areas of the building which contain exposed or damaged asbestos.
  7. Exception to Work Area Ventilation System Requirement where Glovebags are Used. Compliance with 310 CMR 7.15(7)(e) is not required for asbestos abatement activities where glovebags are used as the sole means of abatement removal or repair.
- (f) Removal and Cleanup Requirements. Removal of ACM from facility components shall be conducted within the work area at the site of origin as described in 310 CMR 7.15(7)(f)1.- 5. below.
1. Wetting of ACM. Prior to removal, all ACM shall be adequately wetted with amended water. Amended water shall not be applied in amounts that will cause run-off or leakage of the water from the work area. Once removed, ACM shall be kept adequately wet until and after it is placed into containers pursuant to 310 CMR 7.15(15).
  2. Removal of ACM Being Removed As Units or in Sections. Facility component(s), covered or coated with ACM, being removed as units or in sections, shall be adequately wetted, carefully lowered to the floor level as units or sections and abated within the work area.
  3. Containerization of ACWM. All ACWM within the work area shall be promptly cleaned up and placed into leak-tight containers as described in 310 CMR 7.15(7)(f)3.a.- c. below. Containerized ACWM shall be removed from the work area at least once per shift and stored in secured, totally enclosed vehicles or containers that are designed, constructed, and operated to prevent spills, leaks, or emissions in accordance with 310 CMR 7.15(15) through (17).
    - a. ACM and ACWM not containing components with sharp edges shall be containerized in two plastic bags (six-mil minimum thickness each bag, one inside the other) or in leak-proof metal, plastic or plastic lined drums with locking lids.
    - b. ACM and ACWM with sharp-edge components shall be contained in leak-proof metal, plastic or plastic-lined drums with locking lids or plastic lined boxes.

- c. Large components removed intact shall be wrapped in a minimum of two layers of six mil thick polyethylene sheeting with all joints and seams sealed with duct tape or equivalent, and labeled as ACWM prior to removal from the contained work area.
4. Clean-up. Following an asbestos abatement activity, all contaminated surfaces within the work area shall be decontaminated using HEPA vacuuming or wet cleaning techniques. All equipment and materials used and all surfaces from which ACM has been removed shall be decontaminated. An inch of soil shall be removed from dirt floors and disposed of as ACWM. Clean-up shall be to the level of no visible debris.
5. Removal of Work Area Barriers and Work Area Ventilation Systems. The conditions described in 310 CMR 7.15(7)(f)5.a – c. below shall be maintained until such time as the visual inspection requirements of 310 CMR 7.15(8) are met:
  - a. all work area barriers remain in place;
  - b. work area ventilation systems (if required) remain in operation; and
  - c. all other work practice standards established by 310 CMR 7.15 are met.

(8) Visual Inspection Requirements.

With the exception of the owner of an Owner-Occupied, Single-Family Residence who performs asbestos abatement activities at the owner's residence involving solely non-friable ACM, in addition to the specific asbestos abatement work practice standards set forth at 310 CMR 7.15(7), upon completion of an asbestos abatement activity, the owner/operator shall ensure that the following visual inspection procedures are performed for all asbestos abatement activities. The visual inspection shall be performed only by an asbestos project monitor. Public and private utility owners/operators of underground asbestos cement pipes in their system networks shall comply with the provisions of 310 CMR 7.15(12A)(d) in lieu of 310 CMR 7.15(8).

- (a) An asbestos project monitor shall inspect all surfaces within the work area for visible debris.
- (b) Should any visible debris be found in the work area, it shall be repeatedly cleaned by the asbestos contractor in accordance with 310 CMR 7.15 until there is no visible debris.

(9) Requirements for Asbestos Glovebag Operations.

The owner/operator of a facility or facility component where asbestos abatement activities involving glovebag operations are conducted shall ensure that the following requirements are met:

- (a) For activities that disturb friable ACM, no visible emissions shall be discharged to the outside air during the collection, processing, packaging or transporting of any ACM or ACWM.
- (b) Glovebags shall be used only on those facility components for which they are specifically designed and they shall not be modified for use on any other type of facility component. Glovebags shall be constructed of six-mil thick (minimum) plastic sheeting and be seamless at the bottom.
- (c) Glovebags shall be used only once and shall not be moved along the facility component from where they are initially applied.
- (d) The work area shall be isolated in accordance with 310 CMR 7.15(7)(c)5.c. and cleaned of visible debris by wet wiping or HEPA vacuuming prior to installation of the glovebag.
- (e) Glovebags shall be installed so as to form an airtight covering around the facility components on which they are to be used. Any friable ACM in the immediate area of glovebag installation shall be wrapped and sealed in two layers of six-mil (0.006 inch) thick plastic

- sheeting or otherwise maintained intact prior to glovebag installation. All openings in the glovebag shall be sealed against leakage with duct tape or the equivalent material.
- (f) ACM shall be adequately wetted with amended water prior to its removal and shall be maintained in an adequately wet condition inside the glovebag.
  - (g) Any ACM that has been exposed as a result of the glovebag operation shall be removed, encapsulated, or enclosed so as to prevent the leakage of asbestos fibers prior to the removal of the glovebag.
  - (h) All surfaces inside the glovebag from which ACM has been removed and the upper portions of the glovebag itself shall be cleaned free of visible debris prior to removal of the glovebag.
  - (i) Debris shall be isolated in the bottom of the glovebag by twisting the bag so as to form a closure in the middle. This closure shall then be taped around with duct tape or the equivalent. Air in the glovebag shall be exhausted with a HEPA vacuum cleaner prior to its removal.
  - (j) Following removal from the facility component, the glovebag and its contents shall be containerized in accordance with 310 CMR 7.15(15) and 310 CMR 19.000: *Solid Waste Management*.
- (10) Requirements for the Removal of Asbestos-Containing Asphaltic Roofing and Siding Materials.
- (a) If the requirements of 310 CMR 7.15(10) are followed, asbestos-containing asphaltic roofing and siding may be disposed of in any landfill permitted by the Department to accept solid waste pursuant to 310 CMR 19.000: *Solid Waste Management*. If the asbestos-containing asphaltic roofing and siding are not handled in accordance with this section or if the Department has determined that asbestos fibers may be released during handling, removal or disposal, then the materials shall be disposed of in a landfill that has obtained a special waste permit to accept asbestos wastes or is managing such wastes in accordance with 310 CMR 19.061: *Special Waste*.
  - (b) Roof level heating and ventilation air intakes shall be isolated by covering the intakes with six-mil thickness plastic sheeting prior to the start of the removal work.
  - (c) Asphaltic shingles and felts shall be removed intact to the greatest extent feasible.
  - (d) Asphaltic shingles and felts that are not intact, or will be rendered non-intact shall be adequately wet during removal.
  - (e) Where cutting machines are used in the removal of asphaltic shingles and felts, said cutting machines shall be equipped with a HEPA vacuum to capture dust produced by the cutting process. Cutting machines that are not equipped with a HEPA vacuum to capture dust produced by the cutting process shall only be used inside a work area for which containment sufficient to prevent visible emissions of fugitive dust to the ambient air has been established.
  - (f) Where cutting machines are used in the removal of asphaltic shingles and felts, the material shall be adequately wetted throughout the cutting process.
  - (g) Dust produced by power roof cutters operating on aggregate surfaces shall be removed by HEPA vacuuming. Dust produced by power roof cutters operating on non-aggregate, smooth surfaces shall be removed by HEPA vacuuming or wet wiping along the cut line.
  - (h) Asbestos-containing shingles or felts shall not be dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it shall be lowered to the ground by crane or hoist or transferred in dust-tight chutes.

- (i) Intact asphaltic shingles and felts shall be lowered to the ground prior to the end of each work shift. Non-intact asphaltic shingles and felts shall be kept adequately wet at all times while on the roof. Non-intact asphaltic shingles and felts shall be placed in an impermeable waste bag (six-mil thickness) or wrapped in plastic sheeting (minimum six-mil thickness), sealed with duct tape or the equivalent and lowered to the ground prior to the end of each work shift.
- (j) For activities that disturb friable ACM, no visible emissions shall be discharged to the outside air during the collection, processing, packaging or transporting of any ACM or ACWM.

(11) Requirements for Window Painting and/or Repair Work that Result in the Disturbance of Asbestos-Containing Glazing and/or Caulking Compounds.

- (a) A work area defined at 310 CMR 7.15(1) shall be established that extends outward from the exterior side of the building or facility where the window painting and/or repair work that will result in disturbance of asbestos-containing glazing and/or caulking compounds is to take place. Said work area shall be large enough to encompass all areas where dust, debris or waste generated during the operation are expected to accumulate and areas where there is a reasonable possibility that airborne levels of asbestos could be elevated, as well as any area occupied by equipment.
- (b) Windows, doors and other openings on the side of the building where the window repair/painting work that will result in disturbance of asbestos-containing glazing and/or caulking compounds is occurring shall be closed while the work is occurring and air conditioners on the same side of the building shall be turned off.
- (c) Tarpaulin or plastic sheeting shall be spread on the ground under the window(s) being painted or repaired. Said tarpaulin or plastic sheeting shall extend away from the edge of the building and to either side of the work area a sufficient distance to catch any debris generated by the work operation. Tarpaulin or sheeting shall be cleaned of accumulated debris no later than the end of each work shift.
- (d) If the entire sash is to be removed during painting or repair operations, window openings shall be sealed on the inside of the building with six-mil thickness polyethylene sheeting in a manner sufficient to prevent leakage of dust or debris to interior spaces. Where less than an entire sash is to be replaced, covering and sealing of interior surfaces of the sash that encompasses the area of the panes being worked on may be performed in *lieu* of sealing the entire sash.
- (e) Prior to commencing removal or repair of asbestos-containing glazing compound or caulk, the exterior and interior window well and sash areas shall be pre-cleaned by HEPA-vacuuming and/or wet wiping.
- (f) Asbestos-containing glazing compound and caulk shall be adequately wet with amended water prior to removal or repair. All pieces or particles of glazing compound and caulk shall be removed using a HEPA vacuum and/or using a wet wipe collection method.
- (g) The work area, including ground covers and equipment, shall be cleaned of visible debris at the end of each workday.
- (h) Upon completion of the removal of the asbestos-containing glazing compound and/or caulk, the sash and sill areas shall again be cleaned by HEPA-vacuuming and/or wiped with a wet sponge or cloth. Polyethylene sheeting (where used) shall be removed from the interior of

the window and disposed of as ACWM in accordance with 310 CMR 7.15(15) through (18), and the window well shall be cleaned by HEPA-vacuumping and/or wet wiping.

- (i) All equipment utilized in the work operation shall be cleaned of visible dust and debris by HEPA-vacuumping and/or wet wiping prior to removal from the work area. Wet wipes shall be managed as ACWM.
- (j) The tarpaulin or plastic sheeting below the window(s) shall be cleaned of visible dust and debris by HEPA-vacuumping and/or wet wiping. Dry sweeping shall not be allowed. Ground covers that are free of visible debris and dust may be re-used or disposed as solid waste in accordance with 310 CMR 19.000: *Solid Waste Management*.
- (k) Barrier tape may be disposed as solid waste in accordance with 310 CMR 19.000.
- (l) If disposable protective clothing is used, it shall be disposed as ACWM in accordance with 310 CMR 7.15(15) through (18).
- (m) Wetted window caulking and glazing and other ACM shall be collected and sealed into a six-mil plastic bag that is placed in a leak-tight container for disposal as ACWM in accordance with 310 CMR 7.15(15)-(18).
- (n) If an entire sash is to be removed and disposed of as ACWM, then the adequately wetted sash shall be removed intact, wrapped in a minimum of two layers of six-mil thick polyethylene sheeting with all joints and seams sealed with duct tape.
- (o) At the conclusion of the work, the work site shall be inspected for paint dust or chip debris and asbestos-containing glazing compound or caulk. The work area shall be re-cleaned until no such debris is found.
- (p) All waste shall be labeled as ACWM prior to removal from the work area.
- (q) Visual inspection of the work area required by 310 CMR 7.15(8) above shall be conducted by a person who has completed the asbestos operations and maintenance projects worker training specified in 453 CMR 6.00: *The Removal, Containment or Encapsulation of Asbestos*.
- (r) For activities that disturb friable ACM, no visible emissions shall be discharged to the outside air during the collection, processing, packaging, or transporting of any ACM or ACWM.

(12) Requirements for Exterior Asbestos-Containing Cementitious Shingles, Siding and Panels.

- (a) Asbestos cement shingles, siding and panels shall not be broken, sanded, sawed or drilled at any time during removal or subsequent handling.
- (b) Tarpaulin or plastic sheeting shall be spread on the ground under the areas where the shingles, siding or panels are being removed. Said tarpaulin or plastic sheeting shall extend away from the edge of the building and to either side of the work area a sufficient distance to catch any debris generated by the work operation. Tarpaulin or sheeting shall be cleaned of accumulated debris no later than the end of each work shift.
- (c) Openings on the side of the building where the asbestos abatement activities are taking place shall be closed or sealed with polyethylene sheeting and duct taped in a manner sufficient to prevent leakage of dust or debris to interior spaces.
- (d) Nails securing shingles shall be cut or pulled to allow intact shingle removal. Cementitious asbestos-containing shingles, siding and panels shall be removed whole and intact to the greatest extent feasible. Methods likely to break shingles, siding or panels during removal shall not be used.

- (e) Each panel, siding or shingle shall be adequately wetted with amended water prior to removal.
- (f) Shingles, siding or panels shall be carefully lowered to the ground in a manner to avoid breakage.
- (g) Removed shingles, siding or panels and associated debris shall be containerized in leak-proof metal, plastic or plastic-lined drums or boxes or wrapped with double thickness plastic sheeting (six-mil minimum thickness each layer) sealed with duct tape no later than the end of each work shift.
- (h) Uncontained asbestos cement shingles, siding or panels shall not be bulk loaded into a truck, dumpster or trailer for storage, transport or disposal.
- (i) For activities that disturb friable ACM, no visible emissions shall be discharged to the outside air during the collection, processing, packaging or transporting of any ACM or ACWM.

(12A) Requirements for Underground Asbestos-Cement Pipe.

(a) Applicability.

1. The requirements of 310 CMR 7.15(12A)(b) and (d) shall apply only to repair and replacement of underground asbestos-cement pipe that is owned and/or operated by public and private utilities (e.g., pipes conveying drinking water, sanitary sewage, storm water, electricity, and gas). Repair and replacement of all other underground cement pipe shall comply with the survey requirements at 310 CMR 7.15(4) and the visual inspection requirements of 310 CMR 7.15(8) if the pipe is found to be ACM.
  - a. Public and private utility owners/operators of underground asbestos-cement pipe covered by 310 CMR 7.15(12A) shall comply with all the requirements of 310 CMR 7.15(12A)(b) in lieu of 310 CMR 7.15(4), *Survey Requirements*.
  - b. Public and private utility owners/operators of underground asbestos-cement pipe shall comply with all the requirements of 310 CMR 7.15(12A)(d) in lieu of 310 CMR 7.15(8), *Visual Inspection Requirements*.
2. All owners/operators shall comply with all the requirements of 310 CMR 7.15(12A)(c) in lieu of 310 CMR 7.15(7)(c) and (e), *General Asbestos Abatement Work Practice Standards*, when conducting asbestos abatement activity involving underground asbestos-cement pipe.
3. All owners/operators shall comply with all other requirements of 310 CMR 7.15 when conducting asbestos abatement activity involving underground asbestos-cement pipe.

(b) Survey.

1. The public and private utility owner/operator shall thoroughly inspect the facility, facility component or any part thereof where the demolition or renovation will occur, to identify the presence, location and amount of any asbestos-cement pipe. If the pipe is not identified as asbestos-cement pipe, the owner/operator shall comply with 310 CMR 7.15(4). The thorough inspection shall be satisfied by one of the following:
  - a. As-built plans or other documents, reviewed by the owner/operator, identifying whether particular underground cement pipe or parts thereof that may be affected by a repair or replacement project is asbestos-cement pipe, provided that the documentation has been updated to reflect any repairs or alterations; or
  - b. Visual identification conducted by a person who meets the requirements of 310 CMR 7.15(12A)(b)2. through their field observations of the underground asbestos-cement

- pipe to be worked on, including, but not limited to the manufacturer's brand-label markings indicating transite material or the source of the pipe; or
- c. A presumption by the owner/operator that the underground cement pipe is asbestos-cement pipe.
  2. The survey in 310 CMR 7.15(12A)(b)1.b. shall be conducted by a person who has successfully completed a training course that has been approved in writing by the Department of Labor Standards, that specifically addresses, at a minimum, underground asbestos cement pipe and the survey requirements in 310 CMR 7.15(12A)(b).
  3. The person conducting the survey shall document in writing, in a format prescribed by the Department, the method used to determine whether the cement pipe to be worked on is an ACM, including, but not limited to, identification of specific documents, the specific features of the pipe that were visually observed and/or other information that was relied upon to make said determination. Owners/operators shall keep such documentation at their regular place of business for two (2) years from the date of the survey and provide it to the Department upon request.

(c) Specific Work Practice Requirements for Underground Asbestos-Cement Pipe.

Owners/operators shall ensure the work practice standards listed below are followed:

1. Asbestos-cement pipe shall be handled in a manner that will minimize the risk of making it friable ACM or releasing asbestos dust into the environment.
2. At the start of work involving asbestos-cement pipe, owners/operators shall ensure that:
  - a. The asbestos-cement pipe shall be exposed with minimal disturbance.
  - b. Mechanical excavation shall not be used within six inches of the asbestos-cement pipe.
  - c. The soil within six inches of the asbestos-cement pipe shall be uncovered by hand or with a shovel.
  - d. Once the pipe has been exposed, an assessment shall be made before proceeding to determine whether the asbestos-cement pipe is damaged, cracked or broken to determine whether the requirements of 310 CMR 7.15(12A)(c)3. or 4. apply to the asbestos abatement activity.
3. If the assessment shows that the asbestos-cement pipe is intact and not deteriorated:
  - a. Place 6 mil (0.006 inch) thick polyethylene sheeting under the asbestos cement pipe to prevent soil contamination.  
Adequately wet the asbestos-cement pipe with amended water using surfactant or liquid soap before and during removal to avoid creating airborne dust.
  - b. Separate the asbestos cement pipe at the nearest coupling (bell or compression fitting).
  - c. Slide the asbestos-cement pipe apart at the joints (no saw cutting) or use other methods that do not cause the asbestos-cement pipe to break, become friable ACM or otherwise create the potential to release asbestos fibers.
  - d. Containerizing the wet asbestos-cement pipe and other debris from the abatement in accordance with 310 CMR 7.15(7)(f)(3) may be done in the trench or adjacent to the trench.
  - e. If the trench is filled with water, the placement of polyethylene sheeting is not required.
4. If the asbestos-cement pipe is deteriorated or is not intact, or when the use of mechanical breakage with saws, snap or blade cutting, and/or tapping is necessary:

- a. Place 6 mil (0.006 inch) thick polyethylene sheeting under the asbestos-cement pipe to prevent soil contamination.
  - b. Adequately wet asbestos-cement pipe with amended water where cutting or breaking will occur.
  - c. Saw cutting of asbestos-cement pipe shall only be conducted with a HEPA-shrouded vacuum attachment or wet cutting equipment, unless it is conducted within a small enclosure that isolates the area in which the saw cutting is being conducted to prevent the release of asbestos fibers to ambient air.
  - d. Wrap wet asbestos cement pipe in two layers of 6 mil polyethylene sheeting, seal with duct tape and label (This may be done either in the trench or adjacent to the trench).
5. For activities that disturb friable ACM, no visible emissions shall be discharged to the outside air during the collection, processing, packaging or transporting of any ACM or ACWM.
- (d) Visual Inspection. The final visual inspection shall be satisfied by complying with the following requirements:
1. The visual inspection shall be performed by a person who has successfully completed a training course, approved in writing by the Department of Labor Standards, that specifically addresses, at a minimum, underground asbestos-cement pipe and the requirements of the visual inspection in 310 CMR 7.15(12A)(d).
  2. The person conducting the final visual inspection shall:
    - a. Inspect the work area to ensure there was no visible debris remaining:
      - i. In the excavation trench;
      - ii. In soil excavated from the trench;
      - iii. In the surrounding area adjacent to the trench after the removal of the asbestos cement pipe, and
      - iv. On any tools used during the removal/repair/replacement activities.
    - b. Ensure that all ACWM has been removed for proper storage/disposal.
  3. The person who conducted the final visual inspection shall sign and date the documentation of the final inspection, in a format provided by the Department, as evidence that the inspection was performed and that the condition of “no remaining visible debris” was met. Owners/operators shall keep such documentation at their regular place of business for two (2) years from the date of final visual inspection and provide it to the Department upon request.

(13) Work Practice Standards for Asbestos Incidental Maintenance Projects or Work.

The owner/operator of a facility or facility component where an incidental maintenance project or work is conducted, as defined by 310 CMR 7.15(1), involving the removal or disturbance of asbestos-containing floor tile, or asbestos-containing gypsum wallboard/joint compound systems shall ensure that the following general work practice standards are met.

(a) General Work Practice Standards for Incidental Maintenance Projects or Work.

1. Barriers shall be constructed, as necessary, to insure that asbestos-containing dust released during work activities is contained within the work area. Glove bags, HEPA-shrouded tools and mini-enclosures are permitted in *lieu* of constructed barriers.

2. ACM shall be adequately wetted with amended water before it is disturbed, and it shall be kept adequately wet throughout the asbestos abatement activities until containerized in accordance with 310 CMR 7.15(7)(f)3.
  3. Where ACM is being removed, it shall be removed in an intact state to the greatest extent feasible.
  4. Where power tools are used to cut, chip or abrade an ACM, said power tools shall be equipped with HEPA-filtered local exhaust attachments specifically manufactured for the tools being used.
  5. Any friable ACM exposed as a result of the asbestos abatement activities shall be removed or, if in suitable condition, encapsulated.
  6. HEPA vacuuming or wet cleaning shall be used to decontaminate the work area and any equipment used in the work operation until all surfaces are free of visible debris. The use of compressed air or dry-sweeping is prohibited.
  7. HEPA vacuums shall be emptied and decontaminated in accordance with 310 CMR 7.15(7)(d).
  8. All surfaces within the work area shall be visually inspected for dust, debris and other particulates residue in accordance with 310 CMR 7.15(8). The work area shall be repeatedly cleaned until there is no visible debris.
- (b) Requirements for the Removal of Asbestos Floor Tile as Incidental Maintenance Projects or Work. Any person conducting an incidental maintenance project or work involving the removal of floor tile and related mastics shall presume that said materials contain asbestos unless the results from an asbestos bulk analysis or manufacturer's specifications indicate otherwise.
1. General Requirements:
    - a. Asbestos floor tile and related mastics being removed shall not be sanded, dry-swept, dry-scraped, drilled, sawed, abrasive-blasted, mechanically chipped or pulverized during said removal work.
    - b. All furniture and other movable objects shall be removed from the work area before removal begins. All non-movable objects in the work area shall be wrapped or covered with four-mil (0.004 inch) (minimum) plastic sheeting. Plastic sheet coverings shall be completely sealed with duct tape or the equivalent.
    - c. The entire floor surface from which asbestos floor tile is to be removed shall be vacuumed with a HEPA vacuum prior to removal of the floor tile.
  2. Specific Requirements for Removal of Asbestos Floor Tile. In addition to the General Requirements of 310 CMR 7.15(13)(b)1. the following specific requirements for the removal of asbestos floor tile shall also be followed:
    - a. Floor tiles shall be adequately wetted with amended water prior to removal and kept adequately wet throughout the removal process.
    - b. Floor tiles shall be individually removed by prying upward with hand scrapers or similar hand-held tools in a manner which minimizes breakage. Removal with spud-bars, ice scrapers or similar implements is prohibited. Where tiles do not readily release from underlying mastic, the removal tool may be struck with a hammer to facilitate release. Floor tiles shall be removed in an intact state to the extent feasible.
    - c. Tile surfaces may be heated with a heat gun or other heat source to soften the adhesive and facilitate tile removal. Where heat is used to facilitate removal, the

- wetting of tile specified in 310 CMR 7.15(13)(b)2.a. above may be delayed until after release of the tile from the floor surface.
- d. Removed floor tiles and ACWM within the work area shall be promptly cleaned up and containerized while still adequately wet. Containerized ACM shall be removed from the work area at least once each working shift. Waste not containing components with sharp edges shall be containerized in two plastic bags (six-mil minimum thickness each bag, one inside the other) or in metal, plastic or fiber drums with locking lids. Floor tile with sharp edges and sharp-edged components likely to puncture the plastic bags specified above shall be contained in leak-proof metal, plastic or plastic lined drums or boxes.
  - e. Following containerization of floor tile and associated debris, the floor surface shall be HEPA-vacuumed while still wet and then allowed to dry.
  - f. Immediately after drying, the floor surface shall be HEPA-vacuumed again before the visual inspection required by 310 CMR 7.15(8) is performed.
- (c) Specific Requirements for the Removal or Repair of Asbestos-Containing Gypsum Wallboard and/or Joint Compound. Any person conducting an incidental maintenance project or work involving the removal of gypsum wallboard and/or joint compound shall presume that said materials contain asbestos unless the results from an asbestos bulk analysis or manufacturer's specifications indicate otherwise.
1. Where removal of sections of gypsum wallboard and/or joint compound is required, said sections shall be removed intact to the greatest extent feasible.
  2. Where gypsum wallboard and/or joint compound must be cut to allow removal or refitting of sections, only the minimum number of cuts necessary to accomplish said removal or refitting shall be permitted.
  3. Manually-operated tools or power tools fitted with HEPA-filtered vacuum attachments shall be used for the cutting or resurfacing of asbestos-containing gypsum wallboard and/or joint compound.
  4. Where manually-operated tools are used for the cutting or resurfacing of gypsum wallboard and/or joint compound, the area being cut shall be adequately wetted with amended water during the cutting operation.
  5. Dry sanding of asbestos-containing gypsum wallboard and/or joint compound during refinishing operations is prohibited; only wet sanding is permitted.
  6. Where holes of ½ inch or less in diameter are to be drilled through asbestos gypsum wallboard and/or joint compound, the area encompassing the hole shall be covered with a sufficient quantity of shaving foam to catch the generated chips and dust. Where holes of greater than ½ inch are to be drilled, the area being drilled shall be adequately wetted with amended water during the drilling operation.
- (14) Non-Traditional Asbestos Abatement Work Practice Approvals.
- (a) A person may apply to the Department to utilize Non-Traditional Asbestos Abatement Work Practices that result in the need to deviate from section(s) of 310 CMR 7.15 if one or more of the following circumstances or situations occur:
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 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;
  3. Where asbestos abatement activity is conducted as part of an emergency renovation operation;
  4. Where asbestos abatement activity is 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. For 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.
- (b) A Non-Traditional Asbestos Abatement Work Practice Approval, if granted, shall apply to a specific facility or facility component and shall be non-transferable.
- (c) The Department shall, in its sole discretion, only grant a Non-Traditional Asbestos Abatement Work Practice Approval, to the extent and for the duration of time during which the Department is persuaded that the activities allowed by the approval will:
1. result in no discharge of visible emissions to the outside air;
  2. keep ACM and ACWM adequately wet until it is placed and sealed into containers pursuant to 310 CMR 7.15(15);
  3. comply with all other applicable requirements of 310 CMR 7.15; and
  4. be consistent with the requirements of the laws and regulations cited in 310 CMR 7.15(2)(b).
- (d) Any person applying for a Non-Traditional Asbestos Abatement Work Practice Approval shall submit an application to the Department on a Department approved form. The application shall include:
1. a description of the need and justification for each requirement of 310 CMR 7.15 for which a deviation is sought;
  2. a description of each non-traditional work practice proposed;
  3. a demonstration that the deviations from 310 CMR 7.15 and alternatives proposed will not cause any visible emissions to the outside air and will not pose significant risk to public health, safety or the environment;
  4. all required information specified in the application form; and
  5. any additional information requested by the Department.
- (e) The application shall be accompanied by the applicable fee and shall be legible. An incomplete or illegible application will not be accepted or approved and shall not constitute compliance with these regulations.

(15) Asbestos-Containing Waste Material Packaging Requirements.

The owner/operator of a facility or facility component where any asbestos abatement activity is conducted shall comply with the following:

- (a) Adequately wet ACWM obtained from air cleaning equipment or from removal operations.
- (b) While adequately wet, containerize and seal the ACWM in leak-tight containers.
- (c) 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

Prior to June 1, 2015, the containers may be labeled with the following information in *lieu* of the labeling requirements above:

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

- (d) In addition to the warning label requirement specified in 310 CMR 7.15(15)(c) above, each individual container and/or package of ACWM shall be labeled prior to being transported off the site of generation with the name of the waste generator, the location at which the waste was generated, and the date of generation.
  - (e) Bulk-loading of ACWM is not permitted without the Department's prior approval of a Non-Traditional Asbestos Abatement Work Practice Application.
- (16) Asbestos-Containing Waste Material Transport Requirements.
- (a) All ACWM shall be containerized pursuant to 310 CMR 7.15(15) prior to being transported.
  - (b) All ACWM shall be transported in totally enclosed vehicles or containers that are designed, constructed, and operated to prevent spills, leaks, or emissions.
  - (c) All ACWM shall be transported in conformance with 40 CFR Part 61 and applicable US Department of Transportation, OSHA and state and local regulations.
- (17) Asbestos-Containing Waste Material Storage and Disposal Requirements.
- (a) The owner/operator of a facility or facility component where any asbestos abatement activity is conducted shall ensure that all ACWM generated from any asbestos abatement activity is properly disposed of at a landfill approved to accept such material. If within Massachusetts, such sites must be operated in accordance with 310 CMR 19.000: *Solid Waste Management*. If outside Massachusetts, such sites must be operated in accordance with applicable state and federal asbestos and landfill laws and regulations of the receiving state.
  - (b) ACWM shall be stored only at:
    1. A location that is an approved refuse transfer station facility permitted or that is managing such wastes in accordance with 310 CMR 19.061: *Special Waste*; and/or
    2. The site of generation of the ACWM while the asbestos abatement activity is on-going and for up to 30 calendar days after completion of the asbestos abatement activity and the visual inspection requirements of 310 CMR 7.15(8) are met.
  - (c) No person shall dispose of ACWM at a location that is not a landfill approved to accept such material. If within Massachusetts, such sites must be operated in accordance with 310 CMR 19.000: *Solid Waste Management*. If outside Massachusetts, such sites must be operated in

accordance with applicable state and federal asbestos and landfill laws and regulations of the receiving state.

- (d) Intact and unbroken vinyl asbestos tile that is not coated with asbestos-containing mastic may be disposed of in any landfill permitted by the Department to accept solid waste pursuant to 310 CMR 19.000: *Solid Waste Management*.

(18) Waste Shipment Records and Reports.

- (a) All ACWM shall be shipped via asbestos waste shipment records on a Department approved form that includes, but is not limited to, the following information:
1. The name, address and telephone number of the owner/operator of the facility or dumping ground where asbestos abatement activities have occurred;
  2. The quantity and type (friable or non-friable) of the ACWM in cubic meters (cubic yards) and a description of the container used for shipment;
  3. The name, address and telephone number of the person who conducted any asbestos abatement activity;
  4. The name and telephone number of the disposal site operator;
  5. The name and physical location of the disposal site;
  6. The date transported;
  7. The name, address, and telephone number of the transporter(s);
  8. Certification by the owner/operator of the facility or dumping ground where asbestos abatement activities have occurred/where asbestos waste was generated that the contents of each shipment have been characterized, packaged, marked and labeled in accordance with 310 CMR 7.15;
  9. Signature of each transporter confirming the contents of each shipment are in all respects in the proper condition for transport according to applicable international, federal, state and local regulations;
  10. Signature by the receiving disposal facility confirming that: i) the quantity of ACWM listed on the waste shipment record is the same as the quantity accepted for disposal; and ii) it holds appropriate permits and/or authorizations to accept for disposal ACWM described on waste shipment records; and
  11. Such other information as the Department requires therein.
- (b) If a copy of the waste shipment record, signed by the owner/operator of the designated disposal site, is not received by the owner/operator of the facility or dumping ground where asbestos abatement activities have occurred/where the ACWM was generated within 35 days of the date the waste leaves the site of origin, the owner/operator of the facility or dumping ground where the asbestos abatement activities have occurred and/or where the ACWM was generated shall contact the transporter and/or operator of the designated disposal site to determine the status of the waste shipment.
- (c) The owner/operator of the facility or dumping ground where the asbestos abatement activities have occurred and/or where the ACWM was generated shall report, in writing, to the Department if a copy of the waste shipment record, signed by the owner/operator of the designated waste disposal site, is not received by the owner/operator of the facility or dumping ground where the asbestos abatement activities have occurred and/or where the ACWM was generated within 45 days of the date the waste was accepted by the initial transporter. The report shall include the following information:

1. A copy of the waste shipment record for which a confirmation of delivery was not received; and
  2. A cover letter signed by the owner/operator of the facility or dumping ground explaining the efforts taken to locate the asbestos waste shipment records in accordance with 310 CMR 7.15. Compliance with the foregoing reporting requirements shall not be construed to relieve the owner/operator of the facility or dumping ground of the obligation to maintain waste shipment records in accordance with 310 CMR 7.15.
- (d) The owner/operator of the facility or dumping ground where the asbestos abatement activities have occurred and/or where the ACWM was generated shall report, in writing, to the Department if the waste shipment record is modified after the date the waste is accepted by the initial transporter. The report shall include a description of the amendment or modification together with copies of the waste shipment record before and after amendment or modification.
- (e) The owner/operator of the facility or dumping ground where the asbestos abatement activities have occurred and/or where the ACWM was generated, the transporter, and the owner/operator of the designated waste disposal site shall retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner/operator of the designated waste disposal site, for at least two years. All such parties shall furnish upon request, and make available for inspection by Department personnel, all records required under this section.

(19) General Enforcement Provisions.

In addition to the Department's enforcement authority under M.G.L. c.111 §§142A through O, M.G.L. c. 21A §16 and other applicable laws and regulations, the provisions of 310 CMR 7.15 are subject to the enforcement provisions of 310 CMR 7.52.