



Department of Environmental Protection

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Frequently Asked Questions
About the MassDEP Asbestos Regulation (310 CMR 7.15)
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Disclaimer

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General Roofing and Siding Questions

1. Do I need to conduct a pre-demolition/renovation asbestos survey prior to the removal of roofing or siding materials that may include any suspect asbestos-containing material (ACM)?
 - Yes. Asphaltic and cementitious roofing and siding materials (including: asphaltic shingles, roofing felt and tar; and cement/transite shingles, siding and panels) are considered to be “Suspect Asbestos-Containing Material” and must be thoroughly inspected by a Department of Labor Standards (DLS)-licensed asbestos inspector before the project starts. The inspector can take samples of the material and have them analyzed by a DLS-licensed laboratory. If found to contain 1% or more asbestos, then the roofing or siding material is, by definition, Asbestos Containing Material (ACM). The asbestos inspector will document in a written survey report all materials that contain any asbestos.
 - Alternatively, if one chooses to forego sampling, then the asbestos inspector must presume that the suspect roofing or siding material is ACM and identify it as such in the written survey report.
2. How do I know whether roofing and siding material contains any asbestos?
 - The only way to know for certain that any material contains asbestos is to have it analyzed by a laboratory in accordance with an approved method.
 - The MassDEP asbestos regulation requires use of the *Method for the Determination of Asbestos in Bulk Building Materials* found in EPA report EPA/600/R-93/116. Under this method, bulk samples are routinely analyzed using Polarized Light Microscopy (PLM) analysis.
 - Please note that it is not uncommon for roofing materials to be categorized as “Special-Case Building Materials” (e.g., cementitious products, asphaltic roofing, etc.) characterized by interfering binder/matrix, low asbestos content, and/or small fiber size that may require additional sample treatment(s) and analysis be performed beyond routine PLM analysis (see Appendix D of the Method and/or check with the laboratory).
3. Do I need to file an AQ 04 Asbestos Notification Form (ANF-001) prior the removal of any roofing or siding materials that contain asbestos?
 - Yes. An AQ 04 Asbestos Notification Form (ANF-001) must be filed for the project at least ten (10) working days prior to starting any removal or disturbance of the roofing or siding material if it meets the definition of ACM or is presumed to be ACM. For more information on filing the ANF-001, see: <http://mass.gov/dep/asbestos>
 - If after proper sampling and analysis, the analytical report confirms that none of the materials contains 1% or more asbestos, then the materials do not meet the definition of ACM and no notification is required prior to the removal or disturbance of the roofing and siding materials.
 - However, waste contaminated with any amount of asbestos (even less than 1%) is defined as Asbestos Containing Waste Material (ACWM); and therefore, it must be managed as ACWM. In this scenario, irrespective of whether notification was required prior to removal of the roofing and siding material on the front-end of the project, a “disposal-only” notification is required 10 working-days prior to transport for storage/disposal on the back-end of the project.

4. If using a contractor to remove roofing and siding materials that contain asbestos, does the contractor need to be certified by the Department of Labor Standards (DLS) as a qualified asbestos contractor?
- For a definitive response about whether a DLS certified asbestos contractor is required to remove asbestos-containing roofing and siding materials, please reach out to the DLS for guidance. The requirements can vary depending on whether the job involves a school subject to AHERA requirements, or a small O&M activity, or a bigger job not at a school building.
 - In addition to specific work practices for removing asbestos roofing and siding materials articulated at 454 CMR 28.12, the DLS regulation also specifies requirements for worker training, clearance inspections, and recordkeeping.
 - 454 CMR 28.12(2)(g), “[p]ersons performing work involving only the removal of asbestos roofing and siding materials may comply with the OSHA training requirements set forth at 29 CFR 1926.1101(k)(9)(iv) or the corresponding EPA training requirements specified by 40 CFR Part 763, Subpart G, as applicable, in lieu of fulfilling the training requirements of 454 CMR 28.00”.
 - 454 CMR 28.12(2)(h), “The Work Area and perimeter shall be visually inspected for dust, debris and other particulate residue. The Work Area and perimeter shall be repeatedly cleaned by the Contractor or other entity carrying out the work operation until the no Visible Debris criterion is achieved.”
 - 454 CMR 28.12(2)(i), “Persons performing work involving only the removal of asbestos roofing and siding materials must retain records and documents for a period of at least 15 years.”
 - The work must also be performed in accordance with work practices specified at MassDEP’s regulations at 310 CMR 7.15.
 - The response to this question relies on information provided by DLS. For more information about the DLS asbestos regulation (454 CMR 28.00 “*The Removal, Containment, Maintenance, or Encapsulation of Asbestos*”), please see the DLS website: <http://www.mass.gov/lwd/labor-standards/>. Other federal, state or municipal agencies may have their own requirements that apply to roofing and siding projects that disturb ACM.
5. In addition to the material specific work practices that apply to certain types of roofing and siding jobs, what other sections of the MassDEP Asbestos Regulation requirements apply to roofing and siding work?
- The material-specific work practice sections of the MassDEP Asbestos Regulation (e.g., 310 CMR 7.15(10) “asphaltic roofing and siding materials” and 310 CMR 7.15(12) “exterior cement shingles, siding and panels”) apply in lieu of certain sections of the *General Asbestos Abatement Work Practice Standards* (310 CMR 7.15(7)). That said, you are still required to comply with all other applicable sections of the MassDEP asbestos regulation (310 CMR 7.15). Such additional requirements include, but are not limited to, the following:
 - Prior to starting any work:
 - *Survey Requirements* (Thorough inspection conducted by a DLS-licensed asbestos inspector)

- *Notification Requirements*
- During any removal or repair activities
 - *General Asbestos Abatement Work Practice Standards*: applicable sections, for example:
 - *No Visible Emissions*
 - *Equipment Decontamination Requirements*
 - *Removal and Cleanup Requirements*
- Upon completion of any removal or repair activities and prior to demobilizing:
 - *Visual Inspection Requirements* (i.e., post-abatement visual inspection by a DLS- licensed asbestos project monitor)
- Any time Asbestos-Containing Waste Material (ACWM) is generated:
 - *ACWM Packaging Requirements*
 - *ACWM Transport Requirements*
 - *ACWM Storage and Disposal Requirements*
 - *Waste Shipment Records and Reports*

Asphaltic Roofing and Siding Materials.

1. What kinds of cutting machines may be used to remove asphalt materials containing asbestos (e.g., roofing/siding shingles and felts)?

- Asphalt roofing/siding shingles and felts containing asbestos should be removed intact to the greatest extent feasible.
- If the material needs to be cut, any cutting machine equipped with a HEPA vacuum (which captures dust produced by the cutting process) may be used. Examples include manual and electric saws and shears. Additionally, where cutting machines are used to remove asphalt roofing/siding shingles and felt materials, the materials shall be adequately wetted throughout the cutting process. A cutting machine that is not equipped with a HEPA vacuum may be used, but only inside containment that is sufficient to prevent the release of visible dust to the outside air. However, containment for a roofing project is not generally considered practical or safe. [See 310 CMR 7.15(10)(e)].
 Note: 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.
- Asphalt shingles and felts may also be cut into manageable size pieces using manual methods.

2. Must asphalt roofing and siding materials that contain asbestos be kept wet while they are being removed?

- Yes, at every step of the roofing/siding removal process – cutting, removal, packaging

for disposal - all asphaltic shingles and felts must be kept wet with amended water at all times.

3. How should asphalt shingles and felts that contain asbestos be removed and lowered to the ground?

- Never throw or drop asbestos-containing shingles and felts to the ground.
- Asphalt roofing/siding shingles and felts should be removed intact to the greatest extent feasible.
 - Note: Intact material includes shingles and felts that have been cut into manageable size pieces using either cutting machines (as allowed above) or manual methods.
- Intact shingles and felts shall be carefully lowered to the ground prior to the end of each work shift. They can be containerized once on the ground.
- Non-intact shingles and felts shall be kept adequately wet at all times; placed in impermeable waste bags, or wrapped in plastic sheeting and sealed with duct tape while on the roof; and then carefully lowered to ground prior the end of each work shift.
 - Note: Non-intact material includes shingles and felts that have been fire damaged, broken apart by heavy equipment, etc.
- Carefully lowering to the ground means carrying or passing to the ground by hand, lowering by a crane or hoist, or transferring in dust-tight chutes.

4. Where can asbestos-containing asphalt roofing and siding materials be disposed?

- Asbestos-containing asphaltic roofing and siding material must **NEVER** be transferred to a C&D Processor, Recycler or Incinerator.
- If the job is done in accordance with the material-specific work practices for asphaltic roofing and siding found at 310 CMR 7.15(10), the resulting waste asphaltic roofing and siding material can be disposed at any landfill permitted to accept solid waste. (Note: Prior to arranging for disposal, MassDEP recommends that the landfill be made aware that the waste asphaltic roofing and siding contains asbestos.) In order to clearly document that the applicable material specific work practices were followed; when filling out the Asbestos Notification Form (ANF-001), please enter the regulatory citation “310 CMR 7.15(10) Asphalt Roofing/Siding Requirements” in Section A, Line 12 “*Abatement Procedures*” of the ANF-001 Form.
- However, if the material specific work practices at 310 CMR 7.15(10) are not followed (e.g. fire damaged, broken apart by heavy equipment, etc.), then the asphaltic roofing and siding must be managed as ACWM and disposed at a landfill permitted to accept “*Special Waste*”.
- Fines and dust that are collected in the HEPA filter of the vacuum machine used with the cutting equipment must be removed during the decontamination of the equipment and must be disposed of as ACWM. This material must be kept adequately wet,

containerized and sealed in individual leak-tight containers, and disposed at a landfill permitted to accept “*Special Waste*”.

5. When is a Non-Traditional Asbestos Abatement Work Practice Approval required, or not required, for bulk loading asbestos-containing asphaltic roofing debris?

- A Non-Traditional Asbestos Abatement Work Practice (NTWP) Approval is not required for bulk loading of asbestos-containing asphaltic roofing and siding provided that the material-specific work practice requirements specified in 310 CMR 7.15(10) are followed, and the waste is disposed as Solid Waste at a permitted Solid Waste landfill.
- By contrast, a Non-Traditional Asbestos Abatement Work Practice Approval is required for bulk loading of asbestos-containing roofing and siding material if the work practices required by 310 CMR 7.15 (10) are not followed (for example, during a demolition project, rather than systematically cutting the roof into manageable-sized pieces using HEPA-equipped cutting machines and carefully lowering the pieces to the ground for bulk loading, an excavator is used to break apart the roof and “live” load the roof debris directly into bulk containers). Such bulk-loaded demolition waste must be managed as ACWM and disposed at a landfill permitted to accept “*Special Waste*.”
- Please note: The “Asbestos-Containing Waste Material Packaging Requirements” (310 CMR 7.15(15)), paragraph (e) states that “bulk-loading of ACWM is not permitted without the Department’s prior approval of a Non-traditional Asbestos Abatement Work Practice Application.” So if, for any reason, you plan to dispose of asphaltic roofing waste as ACWM at a permitted “*Special Waste*” landfill, you must either containerize the individual pieces of ACWM in sealed, leak-tight containers with appropriate warning and generator labels; or alternatively, if the ACWM is to be bulk loaded, then an NTWP approval is required in advance.

Cementitious Shingles, Siding and Panels

1. How should cements shingles, siding and panels that contain asbestos be removed?

- The MassDEP Asbestos Regulation provides material specific work practices at 310 CMR 7.15(12) “Requirements for Exterior Asbestos-containing Cementitious Shingles, Siding and Panels” that must be followed without exception. The work practices specify:
 - i. Cement shingles, siding and panels shall not be broken, sanded, sawed or drilled at any time during removal or subsequent handling
 - ii. Lay tarp or plastic sheeting under work area.
 - iii. Close or seal openings on side of building being worked on to prevent leakage into interior spaces.
 - iv. Cut or pull nails/fasteners to allow shingles to be removed intact.
 - v. Remove shingles/panels whole and intact to the greatest extent feasible.
 - vi. Each shingle/panel shall be adequately wetted with amended water prior to removal.

- vii. Carefully lower to the ground to avoid breakage.
- viii. Containerize and seal in individual leak-tight containers at the end of each work shift
- ix. Uncontained shingles, siding or panels cannot be bulk loaded into a truck, dumpster or trailer for storage, transport, or disposal
- x. No Visible Emissions

2. Where can asbestos-containing cements shingles, siding and panels that contain asbestos be disposed?

- Waste cement shingles, siding and panels that meet the definition of ACM (i.e., contain 1% or more asbestos), or are contaminated with any amount of asbestos (even less than 1%) in the course of a demolition or renovation project, meet the definition of ACWM. Therefore, they must be managed as ACWM and disposed at a landfill permitted to accept *Special Waste*.

3. Is bulk loading of uncontained asbestos-containing cements shingles, siding and panels allowed?

- No. As stated above, the applicable work practices specifically prohibit bulk loading of uncontained asbestos-cement shingles, siding or panels into a truck, dumpster or trailer for storage, transport or disposal.

4. Does asbestos-cement siding have to be removed before installing new siding, or can it be covered over?

- While covering over is not specifically prohibited, it is not advisable to install new siding without first removing the existing asbestos-cement siding.
- Any siding installation practice that causes the existing asbestos-cement siding to break or to be released into the environment is prohibited. Violating this prohibition can result in potential liability resulting in enforcement, elevated cleanup costs and project delays.

5. Can intact asbestos-cement shingles be removed and immediately re-installed as part of a home weatherization project or other type of home improvement project?

- Yes, this is allowed.
- Please be aware that the removal and replacement of intact asbestos-cement shingles for a home weatherization project meets the definition of an *Asbestos Abatement Activity*, therefore all applicable requirements of the Asbestos Regulation must be satisfied. Among these are the Notification Requirements at 310 CMR 7.15(6) and the material specific work practices for exterior asbestos-cement shingles, siding and panels at 310 CMR 7.15(12).
- Please take care that:
 - Notification is submitted using the online eDEP notification system
<https://www.mass.gov/how-to/aq-04-anf-001-asbestos-removal-notification>.

- The work area preparation requirements are met (e.g., close/seal openings on side of building being worked on and lay down tarp under work area), and,
- The asbestos-cement shingles are adequately wetted, removed whole and intact to the greatest extent feasible, and are not broken, sanded, sawed or drilled at any time during removal or handling.
- A final visual inspection is performed to ensure no visible debris remains.
- If by chance any asbestos-cement shingles are inadvertently broken or damaged in the process, they must be disposed of as ACWM.

Floor Tile

1. Is the use of abrasive blasting to remove floor tile and related mastics permitted under the new regulations?

- Abrasive blasting using traditional wet methods is allowed provided it is done in compliance with the “General Asbestos Abatement Work Practice Standards” (310 CMR 7.15(7)), which include but are not limited to wetting, work area isolation, containment and ventilation system requirements to prevent visible emissions at all times. Under certain conditions (namely when it can be shown that use of traditional wet methods would unavoidably damage equipment or present a safety hazard), MassDEP may approve a Non-Traditional Asbestos Abatement Work Plan permit on a facility-specific basis for the use of “dry” abrasive blasting at that specific location provided that the work is done under full containment equipped with work area ventilation systems, and dust generation is minimized inside the work area through the liberal use of area misters.
- Abrasive blasting may NEVER be used to remove asbestos-containing floor tile and related asbestos-containing mastics if the work area is 100 square feet or less, which is defined as Incidental Maintenance Work [310 CMR 7.15 (1)]. Please note that in addition to the prohibition on abrasive-blasting, the Incidental Maintenance work practice standard in the regulation also prohibits sanding, dry-sweeping, dry-scraping, drilling, sawing, mechanical chipping or pulverization during removal work. Please see the “Floor Tile” Section Question 2 below for more information on Incidental Maintenance.

2. The specific requirements for removal of asbestos floor tile as an Incidental Maintenance Project indicate that floor tiles must be removed in a manner which minimizes breakage. Can you clarify “minimizes breakage”?

- The goal is to remove the floor tiles in an intact state to the maximum extent feasible. [310 CMR 7.15 (13)(b)2.]
 - While the regulation does not define “minimal breakage”, the specific work practices prescribed in the “Incidental Maintenance” section are designed to

limit breakage as floor tiles are removed:

1. Use hand scrapers or similar hand-held tools to pry up individual floor tiles. The use of tools that are likely to break floor tiles—e.g., spud bars or ice breakers—are prohibited.
2. Where tiles do not readily release from the underlying mastic, you can strike the removal tool with a hammer to facilitate the tile's release. Surfaces may be heated with a heat gun or other heat source to soften the adhesive and facilitate tile removal.

3. How is a single 9" x 9" vinyl asbestos floor tile that "pops" up and needs to be removed regulated in Massachusetts?

- You do not need to notify the MassDEP of the removal of one 9" x 9" asbestos-containing tile [*Notification Exemption for Incidental Maintenance Projects or Work*, 310 CMR 7.15 (6)(f)2.], as long as you follow the work practices described in the response to the "Floor Tile" Question 2 above.
- Intact and unbroken vinyl asbestos tiles (VAT) can be disposed of at any landfill permitted by the local permitting authority to accept solid waste.
- Non-intact VAT (i.e. broken, shattered, crumbled, pulverized or otherwise deteriorated) and any other types of asbestos-containing floor tile debris must be managed as Asbestos-Containing Waste Material (ACWM). Requirements for managing ACWM include: packaging [310 CMR 7.15 (15)], transport [310 CMR 7.15 (16)], storage and disposal [310 CMR 7.15 (17)], and waste shipment records and reports [310 CMR 7.15 (18)].

4. How does the quantity of "related asbestos-containing mastics" apply to the notification exemption for projects involving 100 square feet or less of asbestos-containing floor tile and related mastics? Does the exemption cover 100 square feet of floor tile plus the related mastics, or is it limited to 50 square feet of floor tile if the tile is completely underlain with asbestos-containing mastic?

- *Incidental Maintenance Project or Work* for asbestos-containing floor tile is defined as the "removal or disturbance of...100 square feet or less of asbestos-containing floor tile and related asbestos-containing mastics." This exemption is based on the amount of work area disturbed, not the sum of the individual layers (tile and mastic). So, a project that removes a total area of 100 square feet or less of floor tile along with its related mastic compounds is eligible for the incidental maintenance notification exemption [310 CMR 7.15 (6) (f) 2.].

Non-Traditional Asbestos Abatement Work Practice Approvals

1. How do I apply for a Non-Traditional Asbestos Abatement Work Practice Approval?

- Use the MassDEP form BWP AQ36 Application for Non-Traditional Asbestos Abatement Work Approval, which is available on the MassDEP website. For more information on filing the BWP AQ36, see: <http://mass.gov/dep/asbestos>

Survey Requirements

1. What do I need to do to satisfy the asbestos survey requirement before demolishing or renovating a facility or portion of a facility?

- Before starting any demolition or renovation activities at a facility that contains Suspect ACM, you must retain the services of a DLS-licensed asbestos inspector to conduct a thorough inspection of the facility, or that portion of the facility, where the demolition or renovation will occur, to identify the presence, location and quantity of any ACM or Suspect ACM and prepare a written asbestos survey report.
- The inspector will take samples of Suspect ACM and send them to a DLS-licensed laboratory for analysis. Any Suspect ACM that is not sampled and tested must be presumed to be ACM, identified as such on the written survey report, and handled and disposed of as if it were ACM.
- To the extent that the survey report relies on sampling and analysis to verify the presence, location and quantity of ACM, the analysis should follow protocols established by the U.S. EPA in a report entitled “*Test Method: Method for the Determination of Asbestos in Bulk Building Materials*” (EPA/600/R-93/116, July 1993). Note: DLS establishes certification requirements for laboratories that conduct analysis of air and bulk samples in connection with asbestos-related activities. A list of DLS-licensed laboratories is available on the DLS website: <http://www.mass.gov/lwd/labor-standards/>
- The results of the inspection must be memorialized in a written asbestos survey report. The report must include: an inventory of locations, dates and type of materials sampled; analytical results (which usually include the analytical methods used); the name(s) of the person(s) who provided the analytical services; and a site map, diagram or written description of locations and quantities of identified ACM.
- The owner/operator must maintain a copy of the written asbestos survey report at the facility for at least two years. If the facility is unstaffed or if it is demolished, the owner/operator must maintain a copy at their regular place of business.

2. What materials are “Suspect ACM”?

- Structures built before 1980 are very likely to contain some building materials that contain asbestos, including “snow-man” boilers encased with hand mixed and hand-applied plaster insulation; thermal system insulation on pipes and ductwork; sprayed-on fire-retardant insulation; vinyl-asbestos tile; asphalt roofing; and cement shingles. While there is a commonly held misperception that buildings constructed after 1980 do not contain asbestos, this is not true. After successfully banning certain uses of asbestos in the 1970s, the U.S. EPA adopted a regulation banning all asbestos-containing materials from use in commerce in 1989; however, this rule was struck down in 1991 by the US Court of Appeals for the 5th Circuit. While asbestos ores are no longer mined or processed in the United States, many products containing asbestos continue to be produced, imported, legally sold in commerce, and commonly used in building construction and industrial applications requiring management of challenging environments (e.g., extreme temperature, electric voltage, friction/wear, exposure to weather, etc.).
- MassDEP’s definition of “Suspect ACM” includes any product reasonably likely to contain asbestos based on appearance, composition and use (irrespective of the age of the structure or date of installation). A partial list of product categories that might contain asbestos is listed in the regulation. It includes, but is not limited to:
 - non-fiberglass insulation (e.g. pipe, boiler, duct work, etc.),
 - cloth vibration dampers or ductwork,
 - spray-on fireproofing,
 - cement/transite shingles,
 - cement/transite pipes,
 - cement sheets (corrugated and decorative),
 - asphalt roofing or siding materials (shingles, roofing felts, tars, etc.).
 - vinyl floor and wall tiles,
 - vinyl sheet flooring,
 - mastic (flooring or cove base adhesive or damp proofing),
 - wallboard joint compound
 - plaster, and
 - ceiling tiles.

3. Are there any situations where a survey of Suspect Asbestos Containing Material (ACM) is not required?

- The only time an asbestos survey prior to demolition or renovation is not required is when homeowners are doing the work *themselves*, and only on non-friable ACM, at their single-family, owner-occupied home. All other projects in a structure of any age that contains Suspect ACM require a survey prepared by a DLS-licensed asbestos inspector prior conducting any demolition or renovation activities. [310 CMR 7.15 (4)]

4. Must all Suspect ACM be identified through sampling and analysis?

- No. However, Suspect ACM that is not sampled and analyzed for the presence of asbestos must be handled and disposed of as if it were ACM (310 CMR 7.15 (4)(c)). Therefore, you may presume that Suspect ACM affected by a demolition/renovation project is ACM without sampling it, but the material must be identified as ACM in the survey report and managed as ACM according to all the applicable requirements of 310 CMR 7.15.

5. If one analytical method indicates that suspect material contains less than 1% asbestos, but another analytical method indicates that the material contains more than 1% asbestos, which method is considered definitive?

- Any analytical result based on an EPA approved method (e.g., TEM, PLM) that identifies the presence of 1% asbestos or more triggers the requirement that the material be managed as ACM.

6. If a laboratory reports an analytical result of “Non-Detect” for a sample, do you have to follow up with a more definitive analytical protocol?

- If you use a DLS-certified laboratory, and the laboratory properly follows the U.S. EPA approved analytical method (EPA/600/R-93/116 July 1993) to analyze your sample, there is no need to re-sample or re-analyze the sample in question.

Please note: Appendix D of EPA/600/R-93/116 “Special Case Building Materials” suggests that for the dominantly non-friable materials covered by that Appendix, materials exhibiting characteristics of interfering binder/matrix, low asbestos content, or small fiber size may require additional sample treatment(s) and analysis beyond routine Polarized Light Microscopy (“PLM”). The Appendix provides examples of materials for which additional sample treatment and analysis should be considered: cementitious products (pipe, sheeting, etc.), viscous matrix products (adhesives, cements, coatings, etc.), vinyl materials (vinyl floor tile and sheeting), asphaltic roofing (shingles, roll roofing) and miscellaneous products (paints, coatings, friction plates, gaskets, etc).

7. Can you clarify how MassDEP wants “condition” reported in the asbestos survey report?

- The regulation does not specify how an owner/operator should report the “condition” of Suspect ACM in the asbestos survey report. The owner/operator may use any classification system that adequately describes its condition.

Vermiculite Insulation

1. Can vermiculite insulation contain asbestos?

- Yes. The U.S. Centers for Disease Control has stated that “[h]istorically, much of the world’s supply of vermiculite came from a mine near Libby, Montana. The Libby mine also had a natural deposit of asbestos, and the vermiculite from Libby is contaminated with asbestos.”
- The U.S. EPA has stated that “...the Libby mine was estimated to be the source of over 70 percent of all vermiculite sold in the United States from 1919 to 1990, and vermiculite from Libby was contaminated with asbestos...”

2. Does all vermiculite contain asbestos?

- Most, but not all, of the vermiculite insulation that was used in homes and many other buildings in the United States between 1919 and 1990 came from a mine near Libby, Montana. The ore composition at the Libby mine is known to include a range of asbestiform minerals in the Amphibole family (the so-called Libby Amphibole Asbestos). The Libby Amphibole Asbestos was found to be a primary cause of illness to workers in the mine and nearby residents in the town. Most recently, the vermiculite insulation from the Libby mine was sold under the brand name “Zonolite.” Since the Libby Amphibole Asbestos is well documented in vermiculite that originated at the Libby mine, U.S. EPA advises people with vermiculite attic insulation to “assume that the vermiculite contains asbestos...”

3. What regulatory requirements apply to vermiculite insulation in Massachusetts?

- The MassDEP asbestos regulation [310 CMR 7.15 (1)] defines “Suspect Asbestos-Containing Material” as “products that have a reasonable likelihood of containing asbestos based upon their appearance, composition and use”, and lists non-fiberglass insulation as an example. Vermiculite insulation is one form of non-fiberglass insulation that is considered to be Suspect ACM due to its likely contamination with Libby Amphibole Asbestos.
- All Suspect ACM (including vermiculite insulation) that could be affected by the demolition or renovation must be identified during the asbestos survey [310 CMR 7.15 (4)].
- Please note that the USEPA has not yet approved a definitive test method to analyze for the presence of asbestos in vermiculite. Therefore, if vermiculite insulation is identified in the asbestos survey report as present, then MassDEP recommends following the EPA Guidance, which states:
 - i. Leave vermiculite insulation undisturbed in your attic or in your walls.

- ii. Do not store boxes or other items in your attic if it contains vermiculite insulation.
- iii. Do not allow children to play in an attic with vermiculite insulation.
- iv. Do not attempt to remove the insulation yourself.
- v. Hire a professional asbestos contractor if you plan to remodel or conduct renovations that would disturb the vermiculite in your attic or walls to make sure the material is safely handled and/or removed.

4. Is any financial assistance available for removal of vermiculite attic insulation?

- As part of a settlement with the U.S. EPA for contamination from the vermiculite mine in Libby, Montana, the W.R. Grace Company has established the “Zonolite Attic Insulation Trust”, which provides some financial assistance for owners of residential and commercial buildings in which this insulation was installed. Please see <http://www.zonoliteatticinsulation.com> for information on what the Trust can provide.
- The MA DOER offers Enhanced Barrier Mitigation Incentive grants for income qualified customers of MassSave who have barriers to completing weatherization or heating upgrades due to the presence of vermiculite insulation. See the MassSave webpage at the following link: <https://www.masssave.com/en/saving/energy-assessments/enhanced-residential-program/enhanced-barrier-mitigation-incentives> for more information on this program.

Window Painting and/or Repair Work

1. Does MassDEP require that any disturbance of asbestos-containing window glazing and/or caulking compounds be done under “full” containment?

- MassDEP has established specific requirements for window painting and repair work that will disturb glazing or caulking compounds containing 1% or more asbestos that include alternatives to full containment to prevent the release of asbestos fibers in the building and the exterior area around the jobsite [310 CMR 7.15(11)]. Be sure to check the regulation for the full list, but some important elements include:
 - Close openings on the side of the building where work is being performed.
 - Spread tarpaulins or plastic sheeting on ground below the work area.
 - If an entire sash is to be removed, seal the window with plastic sheeting on the inside.
 - Keep glazing compound and caulk adequately wet with amended water before removing it (Note: amended water means water with soap/surfactant added to prevent generation of visible dust).
 - Keep all waste adequately wet. Collect waste and seal it in a leak-tight container and dispose of it in accordance with requirements pertaining to packaging [310 CMR 7.15 (15)], transport [310 CMR 7.15 (16)], storage and

disposal [310 CMR 7.15 (17)], and waste shipment records and reports [310 CMR 7.15 (18)].

2. How do I handle a window glazing or caulking compound that contains less than 1% asbestos?

- Window glazing or caulking compound containing less than 1% asbestos does not meet the definition of an “Asbestos-Containing Material (ACM)” and therefore its removal from a window is not subject to the work practice requirements for window painting and/or repair work described in the response to the “Window Section” Question 1 above. If you are disturbing window glazing or caulking compound containing less than 1% asbestos, you may still elect to follow these work practice requirements to minimize the risk of asbestos exposure to workers and members of the public, and to minimize the risk of contaminating the waste with any amount of asbestos (even less than 1%).
- Waste that includes removed pieces of window glazing or caulking compound contaminated with any amount of asbestos (even less than 1%), in the course of a demolition or renovation project, meets the definition of “Asbestos-Containing Waste Material (ACWM),” and must be managed in accordance with requirements pertaining to packaging [310 CMR 7.15 (15)], transport [310 CMR 7.15 (16)], storage and disposal [310 CMR 7.15 (17)], and waste shipment records and reports [310 CMR 7.15 (18)].

Revision Tracking

For more information on the topics covered by these FAQs or other asbestos questions, please contact Mike Elliott in MassDEP’s Bureau of Air and Waste (michael.elliott@mass.gov or 617-571-0824).

Section/Question Modified	Date
Initial Publication Date	June 19, 2015
Revisions to “Asphaltic Roofing and Siding” responses	August 1, 2017
Revision to the “Floor Tile” section	August 1, 2017
Revision to the “Vermiculite” section.	August 1, 2017
Addition of “General Roofing and Siding” section	September 2019
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Revision to the “Vermiculite” section	September 2019
Revision to “General Roofing and Siding” section, and updated citations to the DLS Asbestos Regulation at 454 CMR 28.00 (amended April 2021)	November 2022