

# Regulation 61-86.1

## Standards of Performance for Asbestos Projects

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## **SECTION I. DEFINITIONS.**

1. “Abatement” - Procedures to control fiber release from regulated asbestos-containing materials. This includes removal, enclosure, encapsulation, repair, and any associated preparation, clean up and disposal activities having the potential to disturb regulated asbestos-containing material.
2. “Adequately wet” - To sufficiently mix or penetrate with liquid to prevent the potential release of particulates. The absence of visible emissions is not sufficient evidence of being adequately wet.
3. “Aggressive clearance sampling” - A method of sampling which uses electric fan(s), electric leaf blower(s), and other devices to simulate vigorous activity in the abated area while air samples are being collected.
4. “AHERA” - Regulations developed pursuant to the Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Asbestos Containing Materials in Schools (October 30, 1987).
5. “AIHA” - American Industrial Hygiene Association.
6. “Airlock” - A chamber which permits entrance and exit with minimum air movement between a contaminated area and an uncontaminated area, consisting of two doorways protected by two overlapping polyethylene sheets and separated by a sufficient distance such that one passes through one doorway into the chamber, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway. The airlock maintains a pressure differential between the contaminated and uncontaminated areas, thereby minimizing flow-through contamination further.
7. “Air sampler” - A person licensed by the Department to implement air-monitoring plans and analysis schemes during abatement.
8. “Air sampling” - A method such as NIOSH 7400 for PCM, the OSHA Reference Method, 40 CFR 763 Appendix A for TEM, or an equivalent method accepted by the Department used to determine the fiber content of a known volume of air during a specified period of time.
9. “Amended water” - Water to which a surfactant (for example, a non-sudsing detergent) has been added.
10. “Area air sampling” - Any form of air sampling whereby the sampling device is placed at a stationary location either inside or outside the regulated work area.
11. “Asbestos” - The asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthophyllite, and actinolite-tremolite.
12. “Asbestos abatement entity” - Any individual, partnership, firm, association, corporation, sole proprietorship or other business concern, as well as an employee or member of any governmental, religious, or social organization that is involved in asbestos abatement.
13. “Asbestos containing material (ACM)” - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than one percent (1%) as determined by using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, as amended, or an accepted equivalent. (NOTE: “Appendix A to Subpart F” has been redesignated as, and shall hereinafter be referred to as, “Appendix E to Subpart E” - 60 FR 31917, June 19, 1995.)

14. “Asbestos containing waste materials” - As applied to demolition and renovation operations, this term includes regulated asbestos-containing waste materials and materials contaminated with asbestos, including disposable equipment and clothing.

15. “Asbestos project” - Any activity associated with abatement including inspection, design, air monitoring, in-place management, encapsulation, enclosure, renovation, repair, removal, any disturbance of regulated asbestos containing materials (RACM), and demolition of a facility.

16. “Asbestos project design” - A written or graphic plan prepared by an accredited project designer specifying how an asbestos abatement project will be performed that includes, but is not limited to, scope of work and technical specifications.

17. “Asbestos training course” - A Department-approved initial or refresher course in any discipline listed herein (for example, workers, supervisors, management planners, etc.) that meets the requirements of this regulation and is acceptable for licensing purposes.

18. “Asbestos training course instructor” - A Department-approved individual who will teach work practice topics, non-work practice topics, and/or hands-on topics in any Department-approved initial and/or refresher training course and who meets the qualifications of this regulation.

19. “Asbestos training course provider” - The person, sole proprietorship, public corporation, or incorporated entity that meets the qualifications of this regulation to provide instruction in any of the work practice topics or disciplines, non-work practice topics, and/or hands-on topics in any Department-approved initial and/or refresher training course.

20. “ASHARA” - Regulations developed pursuant to 40 CFR Part 763, Subpart E, Appendix C Model Accreditation Plan, Asbestos School Hazard Abatement Reauthorization Act (November 28, 1992).

21. “Authorized visitor” - The facility owner/operator, or any representative of a regulatory or other agency having jurisdiction over the project. This is limited to government project inspectors, police, paramedics, fire-safety personnel, nuclear plant operators, and insurance loss prevention safety auditors, or other personnel as approved on a case-by-case basis by the Department.

22. “Background monitoring” - Area sampling performed prior to abatement to obtain an index of existing airborne fiber levels under typical activity.

23. “Building inspection” - An activity undertaken at a facility by a Department-licensed asbestos building inspector to determine the presence and location of regulated and non-regulated ACM, and to assess the condition of materials identified as ACM. This includes visual or physical examination and bulk sample collection.

24. “Building inspector” - A person licensed by the Department to examine a facility for the presence of ACM, to identify and assess the condition of the material, and to collect bulk samples.

25. “Category I nonfriable asbestos containing material (ACM)” - Nonfriable asbestos or nonfriable asbestos-containing packing, gaskets, and resilient floor covering; and asphalt roofing products containing greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.

26. “Category II nonfriable ACM” - Any material that cannot, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations,

excluding Category I nonfriable ACM and containing greater than one percent (1%) asbestos as determined using the methods specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.

27. “Clean room” - An uncontaminated area or room that is part of the decontamination enclosure system and that has provisions for storage of street clothing and protective equipment.

28. “Clearance monitoring” - Area air sampling performed using Department accepted aggressive clearance sampling techniques to determine the airborne concentrations of residual fibers upon conclusion of asbestos abatement.

29. “Commercial labor provider” - Any individual, partnership, corporation, or other business concern that is not engaged in an asbestos project but does provide temporary workers or supervisors to the owner/operator of the project.

30. “Contractor” - Any individual, partnership, corporation or other business concern that performs asbestos abatement but is not a permanent employee of the facility owner.

31. “Control measure” - Use of amended water, negative pressure differential equipment, encapsulant, high efficiency particulate air filtration device, glove bag or other state-of-the-art equipment designed to prevent fiber release into the air.

32. “Critical barrier” - At minimum, two independent layers of 6-mil plastic sheeting applied to any opening into a work area in a manner that creates a leak-tight seal within the work area to isolate vents, windows, doors, switches, outlets, and any other cavity or opening to the contaminated work area.

33. “Cut” - To penetrate with a sharp-edged instrument. This includes sawing, but may not include shearing, slicing, or punching.

34. “Decontamination enclosure system” - An enclosed area adjacent and connected to the regulated work area consisting of an equipment room, shower area, and clean room, each separated by airlocks, that is used for the decontamination of employees, materials, and equipment that are contaminated with asbestos.

35. “Demolition” - Wrecking or taking out any load-supporting structural member of a facility together with any related handling operations, the burning of any facility, or moving of a structure.

36. “Department” - The South Carolina Department of Health and Environmental Control’s Asbestos Section.

37. “Electrical generating facility” - Any establishment primarily engaged in the generation, transmission and/or distribution of electrical energy for sale.

38. “Emergency operation” - A renovation or demolition operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, will present an imminent safety or public health hazard, will cause equipment damage, or will impose an unreasonable financial burden. This term specifically excludes routine equipment maintenance.

39. “Encapsulation” - A form of abatement involving the treatment of regulated asbestos-containing material (RACM) with a liquid that covers the surface with a protective coating (bridging) or embeds fibers in an adhesive matrix (penetrating) to prevent the release of asbestos fibers.

40. “Enclosure” - A form of abatement involving placement of a leak-tight, impermeable, permanent barrier to prevent access to regulated asbestos-containing material and to prevent the release of asbestos fibers.

41. “EPA” - United States Environmental Protection Agency.

42. “Equipment room” - A contaminated area or room that is part of the decontamination enclosure system and that has provisions for the storage of contaminated clothing and equipment.

43. “Examination date” - The date printed on the Departmental Asbestos Abatement License that indicates the date of successful completion of an examination administered upon completion of an asbestos training course.

44. “F/cc” - Fibers per cubic centimeter.

45. “Facility” - Any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units); any bridge; any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation or building that was previously subject to this requirement is included in this definition, regardless of its current use or function.

46. “Facility component” - Any part of a facility including equipment.

47. “Friable” - Refers to ACM, which may, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations. This also refers to previously non-friable ACM after such material becomes damaged to the extent that when dry, can be or has been crumbled, pulverized, or reduced to powder.

48. “Friable asbestos containing material” - Any material that, when dry, can be or has been crumbled, pulverized, or reduced to powder and contains greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, as amended, or an accepted equivalent.

49. “Goose neck” - Process for sealing the outer bag by twisting the opening of the bag, folding twisted portion of bag over, and creating a loop. Adequately secure the opening of the bag to the base of the twist, using duct tape.

50. “Glovebag” - A sealed compartment with attached inner gloves used for the handling of asbestos-containing materials. Information on glovebag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration’s (OSHA’s) final rules on occupational exposure to asbestos, 29 CFR 1926.1101 (August 10, 1994), as amended, and any subsequent amendments or editions.

51. “Grind” - To reduce to powder or small fragments. Grinding includes mechanical chipping or drilling.

52. “HEPA filter” - A high efficiency particulate air filter that will capture particles with an aerodynamic diameter of 0.3 micrometers with a minimum efficiency of 99.97 percent.

53. “Homogeneous area” - Area of surfacing material, thermal system insulation material, or a miscellaneous material that is uniform in color or texture.

54. “HVAC” - Heating, ventilation, and air conditioning.

55. “Industrial manufacturing facility” - Any establishment whose Standard Industrial Classification code falls within Major Groups 20 through 39, excluding any office space that is part of such an establishment.

56. “In poor condition” - Refers to any ACM where the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.

57. “Installation” - Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of a single owner or operator (or of owners or operators under common control).

58. “Issue date” - The date a license is issued by the Department.

59. “Leak-tight” - Dust, solids, or liquids cannot escape or spill out.

60. “License” - A document issued by the Department that allows an asbestos abatement contractor, building inspector, project designer, management planner, air sampler, supervisor, worker, or other to engage in asbestos projects.

61. “Long-term, in-house contractor” - A contractor having a long-term, often multi-year, contractual arrangement with an industrial manufacturing or electrical generating facility to provide construction and maintenance services, including asbestos abatement. The employees of a designated long-term, in-house contractor shall be covered under the group license of the assigned facility.

62. “Management planner” - A person licensed in accordance with the requirements of this regulation who interprets inspection reports, conducts hazard assessments of asbestos-containing materials, determines appropriate response actions, develops a schedule for implementing response actions, and prepares written management plans.

63. “Manometer” - Instrument for the measurement of gas pressure whose units are represented in inches of water column.

64. “Minor project” - A project where 25 or fewer square or linear feet of regulated asbestos-containing material (RACM) are removed, or where 10 or fewer cubic feet of RACM off a facility component are cleaned up.

65. “Movable object” - A structure within the work area that can be moved (e.g., chair, desk, etc.).

66. “Negative pressure differential equipment” - A portable exhaust system equipped with a HEPA filter.

67. “NESHAP” - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.

68. “NESHAP project” - An asbestos project which involves at least 160 square feet or 260 linear feet of regulated asbestos containing material (RACM), or 35 or more cubic feet of RACM off a facility



component such that the area or length could not be measured prior to abatement. If several contemporaneous projects in the same area within the same building being performed by the same contractor are smaller than 160 square or 260 linear feet individually but add up to that amount, then the combination of the smaller projects shall be considered one NESHAP project.

69. “NIOSH” - National Institute for Occupational Safety and Health.

70. “Non-industrial facility” - Any public, private, institutional or governmental entity that does not meet the definition of an electrical generating or industrial manufacturing facility as defined in this regulation.

71. “Operation and maintenance (O&M) activity” - The disturbance of regulated asbestos-containing material only when required in the performance of an emergency or routine maintenance activity that is not intended solely as asbestos abatement. In no event shall the amount of ACM disturbed exceed that which can be contained in one glovebag or 6-mil polyethylene bag that shall not exceed 60 inches in length and width.

72. “O&M worker” - An individual licensed under a facility group license to perform an operation and maintenance activity at that facility.

73. “OSHA” - Occupational Safety and Health Administration.

74. “Owner/operator” - Any person or contractor who owns, leases, operates, controls, or supervises a facility being demolished or renovated, or any person who operates, controls, or supervises the demolition or renovation operation, or both.

75. “Owner’s representative” - A licensed supervisor, management planner, project designer, or air sampler designated by the facility owner to manage the asbestos project, and who serves to ensure that abatement work is completed according to specification and in compliance with all relevant statutes and regulations.

76. “Personal air sampling” - A method used to obtain an index of an employee’s exposure to airborne fibers. Samples are collected outside the respirator in the worker’s breathing zone.

77. “Planned renovation operations” - A renovation operation, or a number of such operations, in which some RACM will be disturbed, removed, or stripped within a given period of time and that can be predicted. Individual non-scheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

78. “Project designer” - A person licensed in accordance with the requirements of this regulation who is directly responsible for planning all phases of an asbestos abatement project design from project site preparation through complete disassembly of all abatement area barriers.

79. “Reciprocity” - A written agreement between another state and South Carolina to use the same or equivalent auditing criteria when evaluating training course materials, course presentations, and instructor qualifications.

80. “Regulated area” - An area established by the owner/operator of an asbestos project to demarcate areas where asbestos abatement activities are conducted; any adjoining area where debris and waste from such asbestos work is stored; and any work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit.

81. “Regulated asbestos-containing material (RACM)” - (a) Friable asbestos-containing material; (b) Category I nonfriable ACM that has become friable; (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, drilling, or abrading; or (d) Category II nonfriable ACM that is likely to become or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations subject to this regulation.

82. “Removal” - Taking out RACM or facility components that contain or are covered with RACM from any facility.

83. “Renovation” - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

84. “Repair” - Returning damaged asbestos-containing material to an undamaged condition or to an intact state so as to prevent fiber release.

85. “Resilient floor covering” - Asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing greater than one percent (1%) asbestos as determined using polarized light microscopy according to the method specified in 40 CFR Part 763, Appendix E, Subpart E, Polarized Light Microscopy, or an accepted equivalent.

86. “Shower room” - A room located between the clean room and the equipment room in the decontamination enclosure system containing a shower with hot and cold or warm running water controllable at the tap.

87. “Small project” - A project where more than 25 but fewer than 160 square feet or more than 25 but fewer than 260 linear feet of RACM are to be abated, or where more than 10 but fewer than 35 cubic feet of RACM off a facility component are to be cleaned up.

88. “Start date” - The date printed on the Departmental-issued asbestos abatement project license, which indicates when asbestos renovation or demolition operations, including any abatement activity having the potential to disturb RACM, will begin.

89. “Strip” - To remove RACM from any part of a facility or facility component.

90. “Structural member” - Any load-supporting member of a facility, such as beams and load-supporting walls; or any non-load-supporting member, such as ceilings and non-load-supporting walls.

91. “Structures per square millimeter” - Reporting measure for Transmission Electron Microscopy (TEM) Analysis. TEM clearance requires fewer than 70 structures per square millimeter (70s/mm<sup>2</sup>).

92. “Supervisor” - A person licensed by the Department and designated as the contractor’s representative to provide direct on-site supervision and guidance to workers engaged in abatement of RACM.

93. “Surfactant” - A chemical wetting agent added to water to improve penetration, such as a non-sudsing detergent.

94. “Temporary storage license” - A license issued by the Department that authorizes storage of asbestos waste from small and minor projects at a secure location deemed acceptable by the Department.

95. “Variance” - Written Departmental approval for the use of alternative work practices at an asbestos project.

96. “Visible emissions” - Any emissions that are visually detectable without the aid of instruments that originate from RACM or asbestos-containing waste material or a regulated work area.

97. “Waste generator” - Any owner/operator of an asbestos project covered by this regulation whose act or process produces asbestos-containing waste material.

98. “Waste shipment record” - The shipping document, required to be originated, prepared, and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

99. “Wet cleaning” - The process of removing asbestos contamination from facility surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.

100. “Work area” - Designated rooms, spaces, or areas in which asbestos abatement activities are to be undertaken, or that may be contaminated as a result of such abatement activities.

101. “Worker” - A person licensed by the Department to perform asbestos abatement under the direct guidance of an accredited and licensed supervisor.

102. “Working day” - Monday through Friday, including holidays that fall on any of the days Monday through Friday.

## **SECTION II. APPLICABILITY.**

A. The requirements of this regulation shall apply to: any owner/operator, building inspector, management planner, project designer, contractor, asbestos abatement entity, air sampler, commercial labor provider, supervisor, worker, non-industrial facility owner and/or operator, or demolition contractor involved in the inspection, in-place management, design, removal, encapsulation, enclosure, renovation, repair, demolition activity, or any other disturbance of RACM; and any asbestos training course provider or asbestos training course instructor who conducts mandatory asbestos training courses.

B. There are no size limits for abatement projects involving RACM for which the applicable requirements of this regulation shall not apply unless otherwise specified.

C. An owner/operator may request that the Department determine whether a project is an asbestos project subject to the requirements of this regulation.

D. Asbestos projects occurring at a private residential structure of four units or fewer may be exempt from the requirements of this regulation unless:

1. Performed by a person or persons holding an asbestos abatement license.

2. Performed as part of a larger commercial or public project, such as, but not limited to, highway construction; development of a shopping mall, industrial facility, other private development; or urban renewal, etc.

3. The project involves multiple structures within a compact area (“city block”) under the ownership and/or control of a single owner and/or operator. Examples would be a municipality clearing a block of houses for urban renewal purposes or SCDOT clearing a row of houses for a highway-right-of-way project.

4. The structure meets the definition of an installation.
5. The residential structure is being burned for fire training.

E. If asbestos projects occur at separate buildings (different school buildings, for example) then each separate building shall be considered a separate project.

### **SECTION III. ASBESTOS LICENSE FEE SCHEDULE.**

#### **A. Applicability.**

1. The requirements of this Section shall apply to: any owner/operator, asbestos abatement entity, building inspector, management planner, project designer, contractor, asbestos abatement entity, air sampler, commercial labor provider, supervisor, worker, non-industrial facility owner and/or operator, demolition contractor involved in the inspection, in-place management, design, removal, renovation, encapsulation, enclosure, repair, clean-up, demolition activity, or any other disturbance of RACM; and any asbestos training course provider or asbestos training course instructor who conducts mandatory asbestos training courses.

2. Acceptable methods of payment shall be by check or money order made payable to SCDHEC, by credit card (VISA, MasterCard, or Discover), or cash.

3. Each separate building at a multi-building site shall be considered a separate asbestos project, and fees will be assessed for each.

#### **B. Personnel Licensing Fees.**

1. No application will be processed unless accompanied by the required fee.
2. Departmental receipt and deposit of fees submitted with an application shall in no way indicate approval of the application or guarantee the issuance of a license.
3. Fees shall not be refunded if a license application is denied per Section IV.F.
4. Fees for any duplicate original license shall be \$10.00.
5. Fee schedule: Individual license fees are assessed on a per person per discipline basis.
  - a. Contractor - \$100.00
  - b. Building Inspector - \$100.00
  - c. Air Sampler - \$100.00
  - d. Supervisor (Any type) - \$50.00
  - e. Worker (Any type) - \$10.00
6. Facility Operation & Maintenance (O&M) Worker Group License Fee Schedule:

a. The minimum fee for an O&M Worker Group License is \$25.00 and the maximum is \$500.00.

b. Fee Schedule:

- (1) Up to 10 people - \$25.00 minimum fee
- (2) 11 to 20 people - \$2.50 per person
- (3) 21 to 50 people - \$5.00 per person
- (4) 51 to 90 people - \$7.50 per person
- (5) 91 or more persons - \$500.00 minimum fee

C. Renovation Project Fees.

1. The Department shall collect project license fees based on all RACM being removed and ACM rendered regulated by use of destructive removal techniques such as chipping, grinding, sawing, abrading, drilling, or extensive breaking.

2. Abatement project fees for regulated asbestos-containing materials (RACM) are calculated at 10 cents per linear, square, or cubic foot, with a minimum fee of \$25.00 and a maximum fee of \$1,000.00.

3. The Department shall not issue an abatement project license for a renovation or demolition until all requested information has been submitted and reviewed and all applicable fees have been paid.

4. Fees shall not be refunded for projects for which the Department has issued an asbestos project license.

5. An abatement project license that has been issued shall automatically become invalid if an instrument of payment is returned for insufficient funds.

D. Demolition Project Fees.

1. The Department shall charge a fee of \$50.00 to issue a project license for demolition projects.

2. A project license is required for every facility to be demolished, including any facility in which the required building survey indicates there is no ACM present.

3. The Department shall not issue a project license for a demolition until all requested information has been submitted and reviewed, and all applicable fees have been paid.

4. Fees shall not be refunded for projects for which the Department has issued a project license.

5. A project license that has been issued shall automatically become invalid if an instrument of payment is returned for insufficient funds, and the licensee shall be subject to enforcement action for operation without a valid license.

## **SECTION IV. PERSONNEL LICENSING REQUIREMENTS.**

A. Applicability.

1. No person or contractor shall engage in any asbestos project or abatement involving RACM, or ACM rendered regulated by removal techniques or methods, unless licensed to do so by the Department.

2. Every contractor, supervisor, worker, air sampler, project designer, building inspector, or management planner who engages in any asbestos project shall have a current and valid license specific to the duties performed under the license.

3. When a person or contractor engaged in an asbestos project performs duties in more than one discipline, a separate license shall be obtained specific for each discipline. However, a management planner may perform the duties of a building inspector, and a supervisor may perform the duties of a worker without having to obtain separate licenses.

4. A license in any discipline shall only be utilized in accordance with the conditions and provisions contained in the license.

5. When an individual or a company for hire plans to remove RACM, a Department-issued asbestos contractor license must be obtained prior to performing abatement.

#### B. Training Documentation.

Acceptable documentation of training shall be:

1. An original certificate issued by a Department-approved training course provider and that meets the requirements specified in this regulation; or

2. A valid, original license or accreditation (photocopies or telephone facsimile transmissions shall not be accepted) issued by a state with which the Department has a reciprocal arrangement; or

3. A letter verifying successful completion of training, which includes the name, last four digits of Social Security number, unique certificate number, test score, and printed name and signature of the course instructor and which is sent directly to the Department from the training provider.

#### C. License Application.

1. Each applicant seeking an asbestos personnel license in any discipline shall:

a. Successfully complete a Department-approved initial training course specific to the discipline and, at the conclusion of the course, pass an examination with a score of 70 percent or above;

b. Submit a completed application to the Department in a format designated by the Department;

c. Submit a color passport style photo or have a photo taken by the Department. Digital photos should be at least one mega pixel in resolution. Still photos should be a minimum of 2" x 2" and a maximum of 3" x 5".

2. The application must state the type of license for which the application is being made and must include all of the following information:

a. Supervisor License:

(1) Applicant's name, Social Security number, mailing address, telephone number, and, when applicable, company affiliation; and

(2) Documentation of successful completion of an initial asbestos abatement five-day supervisor training course and all subsequent eight-hour refresher training courses, if applicable.

b. AHERA Worker License:

(1) Applicant's name, Social Security number, mailing address, telephone number, and, when applicable, company affiliation; and

(2) Documentation of successful completion of an initial asbestos abatement four-day worker training course and all subsequent eight-hour refresher training courses, if applicable.

c. Air Sampler License:

(1) Applicant's name, Social Security number, mailing address, telephone number, and, when applicable, company affiliation;

(2) Documentation of successful completion of an initial asbestos abatement five-day supervisor training course; and

(3) Documentation of successful completion of NIOSH 582 course or equivalent, or documentation that the applicant is a Certified Industrial Hygienist.

d. Project Designer License:

(1) Applicant's name, Social Security number, mailing address, telephone number, and, when applicable, company affiliation; and

(2) Documentation of successful completion of an initial three-day asbestos abatement project designer training course and all subsequent eight-hour refresher training courses.

e. Building Inspector License:

(1) Applicant's name, Social Security number, mailing address, telephone number, and, when applicable, company affiliation; and

(2) Documentation of successful completion of an initial three-day asbestos building inspector training course and all subsequent four-hour refresher training courses, if applicable.

f. Management Planner License:

(1) Applicant's name, Social Security number, mailing address, telephone number, and, when applicable, company affiliation; and

(2) Documentation of successful completion of an initial three-day asbestos building inspector training course and all subsequent four-hour refresher training courses, if applicable; and

(3) Documentation of successful completion of an initial two-day asbestos management planners' training course and all subsequent four-hour refresher training courses, if applicable.

g. Contractor's License:

(1) Company name, mailing address, street address, telephone number, name, and title of a responsible company official, registered agent with the South Carolina Secretary of State's office, and the Federal Employer Identification Number (FEIN); and

(2) The name and license number of a company employee who is currently licensed as a supervisor in affiliation with that company pursuant to this regulation, or an application completed as required herein for a supervisor's license for a company employee.

h. Non-Industrial Facility O&M Group License (this license is facility-affiliated only):

(1) The facility representative shall, on company letterhead, submit the name, Social Security number, and type of training received for each individual to be covered under the facility license; and

(2) Documentation shall be submitted in the form of an original initial and/or refresher asbestos training certificate that is discipline-specific for the duties to be performed by each individual covered under the facility license.

D. Continuing Education.

1. After successful completion of an approved initial training course, an applicant seeking a license in any discipline except that of Contractor shall thereafter successfully complete a Department-approved initial or refresher training course specific to the discipline and, at the conclusion of each course, shall pass an examination with a score of 70 percent or above.

2. If more than 12 months but fewer than 24 months have elapsed since completing an initial or refresher training course, an applicant shall successfully complete either a refresher training course or an initial training course.

3. If more than 24 months have elapsed since successfully completing an initial or refresher training course, an applicant shall complete an initial training course.

4. The Department may require additional initial or refresher training specific to the requirements of this regulation or to air sampling strategies.

E. Action on an Application.

1. Within 15 calendar days after receiving an application, the Department will acknowledge receipt of the application and notify the applicant of any deficiency in the application. Within 30 calendar days after receiving a completed application, including all additional information requested, the Department will issue a license or deny the application.

2. The Department reserves the right to request documentation to verify an applicant's previous training or accreditation in any discipline prior to issuing a license.

3. The Department reserves the right to request documentation, including Social Security numbers, to verify an applicant's identity prior to issuing a license.

F. Denial.



1. The Department shall deny an application if it determines that the applicant has not demonstrated the ability to comply with applicable requirements, procedures, and standards established by:

- a. The Department as per South Carolina Regulation 61-86.1;
- b. Chapter 87 of the 1976 South Carolina Code of Laws, as amended;
- c. The U. S. Environmental Protection Agency as per:

(1) National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61, Subpart M, as amended, and any subsequent amendments and editions; and

(2) Asbestos-Containing Materials in Schools, 40 CFR Part 763, Subpart E, as amended, and any subsequent amendments and editions; and

d. Occupational Safety and Health Administration in 29 CFR Part 1926.1101 and 1910.1001, as amended, and any subsequent amendments and editions.

2. The Department shall deny a license to any applicant who has failed to comply with the requirements of a properly issued consent, administrative, or judicial order initiated by the Department.

3. The Department shall deny a license to any applicant if it determines that any information or documentation, including a Social Security number, required by this regulation is fraudulent or has been altered or falsified.

4. The Department shall deny a license to any applicant who fails to remit applicable fees.

5. The Department shall deny a license to any applicant who submits fraudulent or falsified information or documents.

6. The Department will not return fees submitted with any invalid or falsified training and/or identification documents submitted for the purposes of licensing.

7. The Department shall send notification of the denial of an application by certified mail, unless the individual is present when the application is evaluated, in which case the Department will inform the applicant in person of the denial.

8. Reapplication after denial. An application denied per this Section shall be resubmitted as follows:

a. For failure to comply with the requirements of a properly issued consent, administrative, or judicial order initiated by the Department, the application shall not be considered until the applicant complies with said order.

b. For altered or falsified documents, including but not limited to, training certificates, Social Security cards or numbers, and photo IDs, the application shall not be considered by the Department prior to 180 days after receipt of such documents and will only be considered thereafter with proper proof of the applicant having successfully completed an initial course in the discipline in which licensure is sought.

c. For failure to remit applicable fees, the application shall not be considered until all applicable fees have been received.

9. The applicant may request a hearing pursuant to the provisions of this regulation.

#### G. Conditions and Generic Alternatives.

In granting a license, the Department may impose reasonable terms and conditions to ensure continuous compliance with the requirements of this regulation.

#### H. Duration of Licenses.

1. A license shall automatically become invalid if an instrument of payment is returned for insufficient funds.

2. A Contractor's license shall expire one year from the issue date, unless the Department suspends or revokes the license at an earlier date. A Contractor's license shall be considered invalid unless at least one company employee maintains a current, company-affiliated supervisor's license pursuant to this regulation.

3. All other licenses shall expire one year from the examination date printed on the license, which is based on the most recent acceptable training certificate submitted with the application, unless the Department suspends or revokes the license at an earlier date.

4. No license shall be extended beyond its expiration date.

### **SECTION V. ASBESTOS PROJECTS/GENERAL INFORMATION.**

#### A. Applicability.

The requirements of this Section shall apply to the owner/operator, building inspector, management planner, project designer, air sampler, supervisor, worker, non-industrial facility owner/operator, or demolition contractor of any asbestos project involving the disturbance of RACM or ACM.

#### B. General Requirements.

1. A person licensed as an asbestos project designer shall prepare the written design for each abatement renovation project involving the removal of greater than 3,000 square, 1,500 linear or 656 cubic feet of RACM in a facility. However, all projects must be designed in accordance with 40 CFR 763.90(g) (*Federal Register*, Volume 52, Number 210, Friday, October 30, 1987), as amended, and any subsequent amendments and editions, and this regulation.

2. The asbestos project design must address:

- a. Preparation of each asbestos-related work area;
- b. Establishment of each containment;
- c. Establishment of each decontamination unit and procedures for use;
- d. Evaluation and selection of various fiber release control options;
- e. Establishment, maintenance, and monitoring of negative air pressure within each containment;

- f. RACM enclosure, removal, encapsulation, or repair work practices;
- g. Visual inspection procedures for each asbestos abatement containment area;
- h. Clean-up and final clearance procedures;
- i. Air monitoring, including analysis, documentation, and any other required record keeping;
- j. Respiratory protection and personal protective equipment requirements;
- k. Procedures for on-site storage, handling, and disposal of ACM and project waste; and
- l. Procedures for maintaining personnel licenses and training certificates on-site.

3. An owner/operator shall obtain an asbestos project license from the Department prior to beginning any NESHAP, small, minor, or demolition asbestos project subject to this regulation unless reporting quarterly as specified herein or in the case of an emergency removal.

4. When air monitoring is required by this regulation, the facility owner shall utilize a person licensed as an air sampler and ensure that all air monitoring is performed.

5. When any negative pressure enclosure or contained work area is required for any sized asbestos abatement project or demolition project, the following requirements shall apply:

a. There shall be sufficient negative pressure differential equipment to ensure at least four air changes per hour;

b. A minimum of -0.02 column inches of water pressure differential, relative to outside pressure, shall be maintained as verified and recorded by a manometer;

c. The manometer record of daily readings (to be taken four times during every eight-hour work shift by a licensed air sampler independent from the contractor) verifying the negative pressure shall be maintained at the job site for Department review for the duration of the project;

d. The inlet sensor of the manometer shall be located at the farthest point from any source of make-up air;

e. The manometer must be calibrated prior to the start of each work shift;

f. Negative pressure shall be maintained until final clearance has been achieved; and

g. Air movement shall be directed away from employees performing asbestos work within the enclosure/containment and toward a HEPA filtration or other collection device.

6. The owner/operator shall notify the Department by telephone and follow up in writing as soon as possible, but not later than, the following working day when a project has been canceled.

7. The disposal requirements of this regulation shall be applicable to all asbestos-containing and asbestos-contaminated materials for any abatement activity.

8. The owner/operator shall ensure that contaminated water is filtered through a five-micron or smaller filter and discharged to a sanitary sewer system. No contaminated or filtered water shall be allowed to leak or drain outside of the work area.

#### C. Other Requirements at the Project Sites.

1. Every asbestos abatement entity performing abatement work shall have at the project site a legible, clear copy of a valid current initial or refresher training certificate issued by an approved training provider.

2. Every asbestos abatement entity performing abatement work shall have a clear, legible copy of a valid Department-issued personnel license at the project site.

3. For the duration of an abatement project, the asbestos owner/operator shall ensure that:

a. Each worker and supervisor employed at the abatement project site meets the applicable training and licensing requirements of this regulation.

b. At all times while abatement (including preparation, removal, and cleanup) of RACM is being performed at NESHAP and small projects, at least one licensed supervisor remains inside of each contained work area supervising the work. During abatement at regulated roofing projects, the supervisor shall be in the immediate work area supervising the work.

c. A means is available at all times during abatement at NESHAP and small abatement projects for Department inspectors or other authorized visitors to communicate with persons within the immediate contained work area in order to gain access.

d. For the duration of the asbestos project, a daily log containing the name and signature of every individual entering the negative pressure enclosure/regulated area shall be maintained on site.

e. The contained work area is secured at all times to prevent access of unauthorized visitors or unprotected persons.

f. Legible copies of Department letters of approval for alternative work practices are at the project site and available for inspection for the duration of abatement.

4. The contractor shall not proceed with abatement unless the air sampler fulfills all specified air monitoring requirements.

5. Commercial labor providers shall ensure that each worker or supervisor has completed appropriate training as specified in this regulation.

#### D. Alternative Work Practices for Any Sized Asbestos Project.

1. The Department may, on a case-by-case basis, approve and issue a variance for an alternative procedure for control of emissions from an asbestos abatement project, provided the owner/operator submits a written description of the alternative procedure to the Department prior to beginning work and demonstrates to the satisfaction of the Department that compliance with the prescribed procedures will not be practical or feasible, and that the proposed alternative procedures provide equivalent protection from asbestos exposure.

2. The owner/operator shall keep a copy of the Department's written approval at the work site and make it available for review by Department personnel upon request.

#### E. Emergency Operation.

1. For an emergency operation, the owner/operator must notify the Department by telephone (outside of normal business hours, an electronically recorded verbal notification is acceptable for approval to execute the emergency operation) and must submit a project notification/application as early as possible before, but not later than, the working day following the emergency operation. The notification/application may be transmitted via facsimile.

2. The facility owner shall notify the Department in writing of the date and hour that the emergency occurred; a description of the sudden, unexpected event; and an explanation of how the event caused an unsafe condition, public safety or health threat, equipment damage or would impose an unreasonable financial burden. The owner shall submit this information with the project notification/application.

### **SECTION VI. ASBESTOS BUILDING INSPECTION REQUIREMENTS.**

#### A. Applicability.

1. Prior to beginning a renovation or demolition operation at any facility, the facility owner and/or owner's representative shall ensure that an asbestos building inspection is performed to identify the presence of ACM.

2. The asbestos building inspection shall include the facility or part of the facility affected by the renovation or demolition operation.

3. The facility owner and/or owner's representative shall ensure the asbestos building inspection is completed by a person licensed as an asbestos building inspector or management planner.

4. When materials that will be disturbed by the renovation or demolition operation are assumed to be asbestos without the use of laboratory bulk sample results, the provisions of Section VI.A.3 of this regulation does not apply.

5. In a multi-unit building, each separate room in each part of the building or areas affected by the renovation or demolition operation shall be inspected to confirm and quantify ACM homogeneous areas for sampling purposes.

6. To be acceptable, a building inspection shall have been performed no earlier than three years prior to the renovation or demolition, or, if more than three years have elapsed since the most recent inspection, the previous inspection shall be confirmed and verified by a person licensed as a building inspector.

7. The Department will not accept an asbestos building inspection or written report for any structure from an employee of an abatement company also involved in the removal of asbestos-containing materials from that structure, unless the licensed inspector is an employee of an entity regulated under Section XX of this regulation.

8. An asbestos building inspector shall not participate in the analysis of the bulk samples he or she has collected.

#### B. Asbestos Inspection.

The building inspector or management planner shall:

1. Visually inspect the areas that may be affected by the renovation or demolition operation to identify the locations of all suspected ACM. For a pre-demolition inspection, destructive sampling techniques shall be utilized;
2. Touch all suspected ACM to determine condition, friability, and whether ACM is a regulated material in areas that may be affected by the renovation or demolition operation;
3. Identify all homogeneous areas of suspected ACM in areas that may be affected by the renovation or demolition operation;
4. In areas that may be affected by the renovation or demolition operation, assume that some or all of the homogeneous areas are ACM, and/or for each homogeneous area that is not assumed to be ACM, collect and submit bulk samples for analysis in compliance with this Section;
5. Material Safety Data Sheets (MSDS), statements from the manufacturer, and architecture signoff will not be accepted as proof that a building product contains no asbestos, except in cases where the owner can verify the direct correlation of the building product to the MSDS, statements from the manufacturer, and/or architecture signoff documents. The Department reserves the right to reject documentation that it deems unacceptable.

#### C. Asbestos Inspection Report Contents.

1. Prior to each demolition operation and upon request for renovations, the Department shall be provided with a complete, legible copy of the asbestos building inspection report.
2. The inspection report shall include:
  - a. A title page denoting:
    - (1) The client's name, company, address, and telephone number, and the name and exact location of the facility inspected;
    - (2) The date the inspection was performed;
    - (3) The date the inspection report was written; and
    - (4) The printed name and telephone number of the inspector(s), and his or her affiliated company name, address, and telephone number.
  - b. A cover letter to the building owner or owner's representative that describes the purpose of the inspection; a general synopsis of the inspection and results; and the name, title, and signature of the inspector(s) and report writer, if different.
  - c. A detailed narrative of the physical description of the building or part of the building affected by the renovation or demolition operation that includes:
    - (1) The square footage of the building or part of the building affected by the renovation or demolition operation;

(2) The building materials used in the construction of the exterior, roof, interior, and basement or crawlspace of the building affected by the demolition or affected by the renovation materials operation; and

(3) An estimated or exact quantity (square or linear feet) for all suspect materials whether sampled for or assumed to be asbestos that may be affected by the renovation or demolition operation;

(4) Also include a description of non-suspect materials excluding: glass, metals, kiln brick, cement, fiberglass, concrete, pressed wood, cinder block, and rubber.

d. An executive summary that details:

(1) The type of suspect ACM (e.g., TSI, floor tile, mastic), total square or linear footage, and the total number of samples collected for each separate homogenous area affected by the renovation or demolition operation;

(2) The date of the inspection, type, condition, quantity, sample results, and exact location of ACM positively identified or assumed to be ACM in the part of the building affected by the renovation or demolition operation; and

(3) A list of the homogeneous areas identified are:

(a) Surfacing material that includes, but is not limited to, joint compound; plaster; and painted, troweled on, or spray-applied textured material;

(b) Thermal system insulation (TSI) that includes, but is not limited to, pipe and boiler insulation; or

(c) Miscellaneous material that includes, but is not limited to, flooring, roofing, mastics, gaskets, cementitious materials, caulking, ceiling tiles, fire doors, wall boards, and flexible duct connections;

(4) Whether the material is accessible for the building or part of the building affected by the renovation or demolition operation; and

(5) The material's potential for disturbance for the building or part of the building affected by the renovation or demolition operation.

e. For renovation and demolition operations, the inspector's determination that ACM is friable or non-friable.

f. Except when suspect ACM materials are assumed to be asbestos, include a complete, clear, legible copy of all laboratory bulk sample results.

g. Clear, legible drawings and/or photographs to clarify the scope of the renovation or demolition operation. Illustrate the exact location of each sample collected. For facilities that involve a trade secret or confidential component or an affected area process, a request for a variance may be submitted.

h. The printed name and signature of each accredited inspector who collected the samples, and a clear legible copy of his or her Department issued asbestos building inspector or management planner license.

#### D.Sampling.

1. A licensed asbestos inspector shall collect, in a statistically random manner, a minimum of three bulk samples from each homogeneous area of any surfacing that is not assumed to be ACM, and shall collect the samples as follows:

a. At least three bulk samples shall be collected from each homogeneous area that is 1,000 or fewer square feet (sf) or linear feet (Lf) in size.

b. At least five bulk samples shall be collected from each homogeneous area that is greater than 1,000 but fewer than or equal to 5,000 sf or Lf.

c. At least seven bulk samples shall be collected from each homogeneous area that is greater than 5,000 sf or Lf.

2. A licensed asbestos inspector shall collect, in a statistically random manner, at least three bulk samples from each homogeneous area of TSI and any miscellaneous material that is not assumed to be ACM. In accordance with ASTM E2356, and any subsequent amendments and editions, negative results for non-friable organically bound materials such as flooring and roofing shall be verified with at least one TEM analysis.

3. Each owner/operator shall have all bulk samples collected per this regulation analyzed for asbestos using laboratories accredited by the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), or an equivalent standard as approved by the Department.

4. Bulk samples shall be analyzed for asbestos content by polarized light microscopy (PLM) using the “Interim Method for the Determination of Asbestos in Bulk Insulation Samples” found in Appendix E to subpart E of 40 CFR 763, the “Method for the Determination of Asbestos in Bulk Building Materials” (EPA/600/R-93/116), ASTM E2356, or other method(s) deemed acceptable by the Department on a case-by-case basis.

5. A homogeneous area is not considered to contain ACM only if the results of all samples required to be collected from the area show asbestos in amounts of one percent (1%) or less.

6. A homogeneous area shall be determined to contain ACM based on a finding that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than one percent (1%).

## **SECTION VII. STANDARDS FOR AIR SAMPLERS.**

#### A.Applicability.

This Section shall apply to each owner, owner’s representative and/or air sampler engaged in an asbestos project where air sampling is required.

#### B.General Requirements.



1. Area air sampling shall be performed by a licensed air sampler.
2. Abatement air sampling data collected by a licensed air sampler under contract with or employed by the asbestos contractor performing the abatement will not be acceptable to the Department.
3. Air sampling shall be conducted using collection media, procedures, and analytical methods in accordance with NIOSH Method 7400 when Phase Contrast Microscopy (PCM) is used, and with *Electron Microscope Measurement of Airborne Asbestos Concentrations* [EPA Report 600/2-77-178 (1978) and EPA Contract No. 68-02-3266 (1984)] when Transmission Electron Microscopy (TEM) is used.
4. Any alternative procedure for clearance sampling shall require prior written approval from the Department. The written request must provide a detailed description of the alternative procedure and an explanation of how it will provide an equivalent level of protection to facility occupants.
5. The air sampler shall:
  - a. Ensure that all air sampling pumps are accurately calibrated prior to operation by utilizing a rotometer that has been calibrated within the past six months using a primary standard, such as a bubble burette or a dry calibrator. Calibration data shall be maintained at the project site for the duration of abatement.
  - b. Ensure that all air sampling pumps are operating properly and that the filtered sampling cassettes are securely attached to the pumps for the duration of sampling.
  - c. Maintain current background, daily, and clearance air monitoring data at the project site, and make the data available for review by Department personnel and other authorized visitors upon request.
  - d. Ensure that there are always at least four sampling pumps operating properly for the duration of any asbestos project requiring daily area air monitoring.
  - e. Collect area air samples for a minimum of two and one half hours for each four-hour work period during preparation, removal, and clean-up activities at NESHAP projects.
  - f. Maintain a log for the duration of an asbestos project describing daily activities.
  - g. Follow the procedures specified in NIOSH 7400 or an equivalent method acceptable to the Department when conducting clearance air monitoring.
  - h. Submit a written copy of the sampling procedures and clearance air monitoring results to the facility owner within five working days following the completion of the project and to the Department upon request.

#### C. Background Monitoring.

1. The air sampler shall collect a minimum of five air samples at a NESHAP abatement project prior to the start of abatement activities in order to obtain an index of background airborne fiber concentrations.
2. Samples shall be taken both inside and outside the work area to establish existing ambient air levels under normal activity conditions.

3. The air sampler shall document any variations and justifications for the variations, and shall maintain a written copy of the sampling variation(s) at the project site for the duration of the abatement, and shall provide the information to the Department upon request.

4. No background air sampling is required at small, minor, and O&M abatement projects.

5. Background sampling, when required, may be analyzed using PCM methods.

#### D. Daily Monitoring.

1. Once abatement activities begin at a NESHAP abatement project, the air sampler shall conduct representative daily area sampling in the following areas:

a. In the equipment room of the decontamination enclosure systems;

b. At the entrance to the clean room of each decontamination enclosure system;

c. Outside the work area in uncontaminated areas of the facility;

d. Where the negative pressure differential equipment exhausts, at a distance no greater than five to eight feet from the air flow when feasible. When multiple machines are in operation, the air sampler may rotate the sampling; however, all exhausts must be monitored daily; and

e. The total volume of air collected for daily area air sampling shall be in accordance with 40 CFR Part 763 and/or NIOSH 7400 and any subsequent revisions for analytical methodology.

2. The air sampler shall document any variations and justifications for the variations, and shall maintain a written copy of the sampling variation at the project site for the duration of the abatement and provide the information to the Department upon request.

3. Daily air sampling, when required, may be analyzed using PCM methods.

#### E. Clearance Monitoring.

1. Where clearance air monitoring is required by this regulation, the clearance standard for any NESHAP abatement project shall be: by Phase Contrast Microscopy less than or equal to 0.01 f/cc; or by Transmission Electron Microscopy (TEM). The clearance standard is less than or equal to 70 s/mm<sup>2</sup> using the Mandatory TEM Method described in 40 CFR 763, Appendix A of Subpart E, as amended, and any subsequent amendments and editions. The Z test with a value of Z less than or equal to 1.65 for a Z test carried out as described in 40 CFR 763, Appendix A of Subpart E, as amended, and any subsequent amendments and editions, shall be allowed for clearance purposes only with prior Department approval.

2. The total volume of air collected for clearance air sampling shall be in accordance with 40 CFR Part 763 and/or NIOSH 7400 and any subsequent revisions for analytical methodology.

3. A licensed air sampler shall conduct, at a minimum, PCM clearance air monitoring at the completion of each NESHAP project. Projects exceeding the project design threshold (3,000 sf, 1,500 Lf, and 656 cubic feet of RACM) will require TEM clearance air monitoring.

4. When conducting clearance air monitoring, the air sampler shall follow the procedures specified in

*Measuring Airborne Asbestos Following An Abatement Action*, EPA Report 600/4-85-049 (1985), which is hereby incorporated by reference, or an equivalent method acceptable to the Department. Procedures shall be summarized and submitted to the facility owner. The air sampler shall report the clearance air monitoring results in writing to the facility owner within five working days following completion of the project and to the Department upon request.

5. Sampling shall not begin until wet cleaning has been completed and no visible pools of water or condensation remain. Sufficient time shall be allowed for all surfaces to dry. The sampling zone shall be representative of the building occupants' breathing zone.

6. Sampling shall not begin until the air sampler has performed a visual inspection and authorizes final clearance air monitoring.

7. Sampling shall be conducted only after all interior wall, ceiling, and floor polyethylene sheeting has been removed. Critical barriers and the five-stage decontamination enclosure system shall remain in place until the abated area has passed final clearance.

8. For projects subject to 40 CFR Part 763, AHERA, as amended, and any subsequent amendments or editions, conduct clearance air monitoring after abatement in areas to be reoccupied (including interior spaces, porticos, and covered exterior walkways) and abatement on exterior portions of mechanical systems used to condition interior spaces. For projects equal to or greater than 160 sf, 260 Lf or 35 cubic feet, TEM clearance air monitoring is required.

9. At least one licensed asbestos project supervisor shall remain at an asbestos project site for the duration of the final clearance visual inspection and clearance air sample collection process.

## **SECTION VIII. DISPOSAL REQUIREMENTS.**

### **A. Applicability.**

This Section shall apply to each owner/operator engaged in a renovation abatement project.

### **B. General Requirements.**

1. Each owner/operator engaged in a renovation abatement project subject to this Section shall ensure that:

a. Each container (bag, drum, wrapped component, etc.) is labeled so that labels have the appearance of or are designed in accordance with OSHA 29 CFR 1926.1101 (August 10, 1994), as amended, and any subsequent amendments and editions, and EPA 40 CFR 61.150 (November 20, 1990), as amended, and any subsequent amendments and editions.

b. All asbestos waste bags and/or containers shall be properly labeled prior to being placed into the waste transport vehicle.

c. Waste generator labels are:

(1) Written legibly and in indelible ink; and

(2) Displayed in a prominent location on the outer most bag or container.

- d. Asbestos waste is disposed of at a landfill approved or permitted to accept asbestos waste.
- e. Asbestos waste is not stored at a location other than the facility site without prior written approval from the Department.
- f. Stored asbestos waste is maintained in a secured, locked location where access is controlled.
- g. Asbestos waste is transported and disposed of in a manner that will not permit the release of asbestos fibers into the air (e.g., enclosed or retrofitted covered vehicle).
- h. Asbestos waste is transported in accordance with the following procedures:
  - (1) The cargo area of the transport vehicle shall be free of debris and be lined with at least one layer of 6-mil polyethylene sheeting.
    - (a) Floor sheeting shall be installed first and shall extend up the side walls at least 12 inches and shall be taped securely into place.
    - (b) Wall sheeting shall overlap by at least six inches and be taped into place.
    - (c) Ceiling sheeting shall extend down the sides of the walls at least six inches and be taped into place.
  - (2) If asbestos waste is transported exclusively in leak-tight clean drums, or other leak-tight, rigid containers approved by the US Department of Transportation as appropriate shipping containers for asbestos waste, then polyethylene sheeting is not required.
  - (3) Drums, bags, wrapped components, and other leak-tight containers that have been removed from the work area shall be labeled in accordance with 1.a. of this Section prior to being loaded into an appropriate vehicle for transportation.
  - (4) Any debris or residue observed on containers or surfaces outside of the work area resulting from abatement activities shall immediately be cleaned using wet methods and a vacuum equipped with a HEPA filter.
  - (5) Containers shall be carefully placed, not thrown, into the truck cargo area. Drums shall be placed on a level surface in the cargo area and packed tightly or blocked and braced to prevent shifting and tipping. Large structural components shall be secured to prevent shifting.
  - (6) Asbestos waste that is removed from a facility site shall be transported directly to an approved landfill unless it is stored in the location designated in a temporary storage license issued to the owner/operator by the Department.
  - (7) Metal dumpsters or containers in which asbestos waste is temporarily stored at the abatement site shall be lined with 6-mil polyethylene sheeting to prevent contamination and shall have doors or tops. The doors and tops shall be closed and locked except during loading or unloading of asbestos waste.
  - (8) Metal dumpsters or containers used for waste storage shall be labeled in accordance with OSHA 29 CFR 1926.1101, August 10, 1994, as amended, and any subsequent amendments and editions.

(9) Bags shall be free of splits, rips, and tears, and shall be carefully placed, not thrown, into the transport vehicle.

(10) Any equipment, materials, or supplies stored in the waste transport vehicle shall be isolated from the asbestos waste by a leak-tight barrier. All containers and wrappings shall be free of asbestos contamination.

(11) Non-asbestos waste shall not be placed in waste containers or bags labeled as asbestos waste.

(12) The vehicle used to transport asbestos wastes shall be labeled in accordance with 40 CFR 61.149(d)(1)(i), (ii), and (iii), as amended, and any subsequent amendments and editions.

2. The owner/operator shall dispose of asbestos waste in accordance with the following procedures:

a. Upon reaching the landfill, vehicles shall approach the dump location as closely as possible to unload asbestos waste.

b. Bags, drums, and wrapped components shall be inspected when unloaded at the disposal site. Material in damaged containers shall be rewrapped or repacked in empty drums or bags.

c. Waste containers shall be placed on the ground at the disposal site, not dropped or thrown out.

d. Unloading of metal dumpsters or containers by tipping or tilting is permitted without re-inspecting individual bags or drums, provided there are no visible emissions.

e. Following the removal of all containerized waste, polyethylene sheeting shall be removed and discarded in bags or drums along with contaminated cleaning materials and protective clothing.

f. After asbestos waste has been unloaded, the truck cargo area, including the floor, walls, and ceiling, shall be decontaminated using wet methods or a vacuum equipped with a HEPA filter until no visible residues remain.

g. A copy of a completed waste shipment record with signature of the landfill operator shall be submitted to the Department by the asbestos contractor within 45 working days of completion of removal.

h. A waste shipment record shall be used and shall include the asbestos project license number; names of the facility owner, contractor and disposal site; the estimated quantity of asbestos waste; and the type and number of containers used. Each time the material changes custody, the record shall be signed by the person(s) receiving the waste. If a separate hauler is used, the hauler's name, address, telephone number, and the driver's signature shall also appear on the record.

i. The owner/operator shall ensure that asbestos-containing or asbestos-contaminated waste materials are not burned or recycled.

j. Commercial rental vehicles shall not be used to transport any asbestos, asbestos-containing, or asbestos-contaminated waste. This prohibition does not apply to tractors but does apply to cargo compartment areas used to store and/or transport asbestos waste. Rental vehicles do not include leased vehicles.

C. Temporary Asbestos Storage Containment Area Site.

1. Prior written approval must be obtained from the Department before a site other than an asbestos abatement project site can be used for the storage of regulated asbestos-containing waste from small, minor, or O&M asbestos projects. NESHAP asbestos project waste must be deposited into an approved landfill and may not be stored.

2. Written authorization shall also be obtained from the facility owner or his representative prior to transporting regulated asbestos-containing waste from the facility site of generation (verification of the property owner's authorization must be sent directly to the Department by the facility owner).

3. In order to have a site permitted as a Temporary Asbestos Storage Containment Area, the operator must demonstrate that adequate precautions have been and will continue to be taken to ensure that the waste is properly maintained for the duration of its storage.

4. An operator must submit an application requesting a license for a Temporary Asbestos Storage Containment Area to the Department for review at least 45 working days in advance. The Department will acknowledge receipt of the application and notify the applicant of any deficiency in the application.

5. Within 45 working days after receiving a completed application, including additional information requested, the Department will issue a license or deny issuance of the license.

6. The Department reserves the right to inspect the proposed Temporary Asbestos Storage Containment Area prior to granting final approval.

7. Approval of the Temporary Asbestos Storage Containment Area will be valid for one year from the date of issuance unless the authorization is revoked or suspended by the Department at an earlier date.

8. The Department may revoke or suspend a license based on falsification of or known omission of information from an application for this license, omission or improper use of work practices, improper disposal of ACM, and/or spread of asbestos waste beyond the containment area.

9. In order to renew a storage license, the operator of a Temporary Asbestos Storage Containment Area must resubmit an application for off-site storage of regulated asbestos-containing waste to the Department at least 45 working days prior to the expiration of the existing permit. Previous approval of a site as a Temporary Asbestos Storage Containment Area does not guarantee re-issuance or continuance of a storage license.

## **SECTION IX. EXEMPTION FROM WETTING FOR ANY SIZED PROJECT.**

### **A. General Provisions.**

In renovation operations, wetting is not required if:

1. The owner/operator has obtained prior written approval from the Department based on a written application that wetting to comply with this Section would unavoidably damage equipment or present a safety hazard; and

2. The owner/operator uses one or more of the following emission control methods:

a. A local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping and removal of asbestos materials. The system must exhibit no

visible emissions to the outside air or must be designed and operated in accordance with the requirements in EPA Regulation 40 CFR 61.152, as amended, and any subsequent amendments and editions;

b. A glovebag system designed and operated in accordance with the requirements of OSHA regulation 29 CFR 1926.1101, as amended, and any subsequent amendments and editions;

c. Leak-tight wrapping to contain all RACM prior to dismantlement;

3. In renovation operations where wetting would result in equipment damage or a safety hazard and the methods allowed in this Section cannot be used, an owner or operator may use another method after obtaining written approval from the Department based on its determination that the alternative method is equivalent to wetting. The owner/operator shall keep a copy of the Department's written approval at the work site and make it available for review by Department personnel upon request.

#### B. Temperature Constraints.

When the temperature at the point of wetting is below 0°C (32°F):

1. During periods when wetting operations are suspended due to freezing temperatures, the owner/operator must record the temperature in the area containing the asbestos-coated or covered facility components at the beginning, middle, and end of each workday and keep daily temperature records. A copy of these records must be maintained at the project site and made available for inspection by Department personnel upon request. The facility owner must maintain these temperature records for two years from the date the project is completed and shall provide a legible copy of the data to the Department upon request.

2. The owner/operator may request to use an alternative work practice by submitting to the Department a written description of control measures to be used that will afford the same level of protection as wetting. A legible copy of the Department's approval letter must be available at the project site for the duration of the asbestos project and shall be made available for review by Department personnel upon request.

3. The owner/operator shall remove facility components containing, coated with, or covered with RACM as units or in sections and shall secure the units or sections leak-tight in 6-mil or thicker polyethylene sheeting.

### **SECTION X. NESHAP PROJECTS.**

#### A. Applicability.

The notification/application, work practice, air sampling, clean-up and disposal requirements of this Section shall apply to each owner/operator of a renovation asbestos project, where the combined amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed includes at least 260 linear feet on pipes, or 160 square feet on other facility components, or 35 cubic feet off of facility components where the area or length could not be measured prior to abatement.

#### B. Notification/Application.

1. Each owner/operator of a renovation or demolition operation to which this Section applies shall:

a. Provide the Department with written notification/application at least ten complete working days prior to any renovation or demolition operation, and pay all applicable project fees. Acceptable delivery of

the notification and fee payment is by U.S. Postal Service or commercial delivery service, by hand, or by other methods deemed acceptable by the Department.

b. Update/revise the notification/application and pay appropriate fees as required when any previously-notified information changes, including but not limited to, when the amount of asbestos affected increases or decreases more than five percent (5%), when the project start or completion date changes, when the disposal site changes, and/or the project has been cancelled. The owner/operator shall notify the Department by telephone and follow up in writing as soon as possible before, but not later than, the following working day.

c. Prior to each demolition operation, and upon request for renovations, provide the Department with a complete legible copy of the asbestos building inspection report.

d. Begin abatement on the start date contained in the Department-issued asbestos project license.

e. Project designs shall be submitted at the Department's request.

2. When the asbestos stripping or removal operation or demolition operation covered by this Section will begin on a date earlier than the previously-notified start date, the owner/operator shall provide the Department with written notification/application of the new start date at least ten working days before asbestos stripping or removal work will begin. The Department may waive this requirement on a case-by-case basis, although the owner/operator shall provide all required information in writing prior to commencing any abatement activities.

3. The owner/operator of an asbestos stripping or removal operation covered by this Section shall:

a. Notify the Department of the new start date by telephone as soon as possible before, but not later than, the original start date, when the renovation will begin after the date contained in the initial notification/application and in the asbestos project license issued by the Department.

b. Provide the Department with an updated written notice of the new start date as soon as possible before, but not later than, the original start date. Acceptable delivery of the updated notice is by the U.S. Postal Service or commercial delivery service, by hand, or by other methods deemed acceptable by the Department.

c. Provide the Department with an updated written notice of the new completion date as soon as possible before, but not later than, one working day following the completion of the project when the asbestos stripping or removal operation covered by this Section will end on a date earlier than contained in the initial notification and in the asbestos project license issued by the Department. Acceptable delivery of the updated notice is by the U.S. Postal Service or commercial delivery service, by hand, or by other methods deemed acceptable by the Department.

d. Provide the Department with written notification/application of the new completion date as soon as possible before, but not later than, the original completion date when the asbestos stripping or removal operation covered by this Section will end on a date later than contained in the initial notification/application and in the asbestos project license issued by the Department. Acceptable delivery of the updated notice is by the U.S. Postal Service or commercial delivery service, by hand, or by other methods deemed acceptable by the Department.

4. The written notification /application shall include:



- a. Indication whether the notification/application is an original, revision, or cancellation;
- b. Name, address, and telephone number of the owner/operator;
- c. Type of operation: demolition or renovation;
- d. Description of the facility or affected part of the facility, including the square footage, number of floors, age, and prior, present, and intended use of the facility;
- e. Description of the procedures and analytical methods used to detect the presence of ACM (regulated and non-regulated), date of inspection, and name, address, telephone number, and license number of the building inspector;
- f. An estimate of the approximate amount of RACM and Category II nonfriable ACM to be removed from the facility in terms of length of pipe in linear feet; surface area in square feet on other facility components, or volume in cubic feet, if already off facility components;
- g. Location and street address (including building number or name and floor or room number, if appropriate), city, county, and state of the facility being demolished or renovated;
- h. Scheduled starting and completion dates of asbestos renovation or demolition;
- i. Description of planned renovation or demolition work to be performed, emission control measure(s) to be employed, and a description of the affected facility or facility components;
- j. Description of the engineering controls and procedures to be used to comply with the work practice requirements of this regulation;
- k. Name and location of the waste disposal site where the regulated asbestos-containing waste material will be deposited. Regulated asbestos-containing waste must be deposited into a landfill approved or permitted to accept asbestos waste;
- l. Description of procedures to be followed in the event that unexpected RACM is found or Category I or II nonfriable ACM becomes regulated;
- m. Name, address, and telephone number of the waste transporter; and
- n. Printed name and signature of the asbestos owner/operator submitting the notification, and date signed.

5. A complete notification/application shall contain all of the above information and shall be reported on a form similar to the one found in 40 CFR Part 61, Subpart M, as amended, and any subsequent amendments and editions.

### C. Work Practice Requirements.

#### 1. Preparation.

a. Prior to beginning removal, each owner/operator engaged in a renovation project subject to this Section shall:

(1) Define the work area using barrier tape and danger signs in accordance with the following or OSHA 29 CFR 1926.1101, as amended, and any subsequent amendments and editions, if more stringent:

(a) Warning signs and tape that clearly separate the regulated area shall be provided and displayed at each location where a regulated area is required to be established by this Section. Signs shall be posted at a distance from the regulated area such that an employee may read the signs and take necessary protective steps before entering the area marked by the signs.

(b) The warning signs required by this Section shall bear the following information:

DANGER

ASBESTOS

CANCER AND LUNG DISEASE HAZARD

AUTHORIZED PERSONNEL ONLY

(2) Shut down, lock, and tag out all HVAC equipment in or passing through the work area. Seal each intake and exhaust opening and any seam in system components with two sheets of 6-mil polyethylene sheeting and tape.

(3) Detach and wet clean removable electrical, heating, and ventilating equipment and other items which may be connected to asbestos surfaces.

(4) Remove existing filters from the HVAC system and dispose of as asbestos-contaminated waste.

(5) Seal each opening between the work area and uncontaminated areas including windows, doorways, elevator openings, corridor entrances, drains, ducts, electrical outlets, grills, grates, diffusers, and skylights with a critical barrier consisting of at least two independent sheets of 6-mil or thicker polyethylene sheeting secured in place. These critical barriers must be maintained leak-tight for the duration of asbestos abatement.

(6) Thoroughly clean and remove all movable objects from the work area.

(7) Thoroughly clean, then cover and secure each non-movable object in the work area with at least one sheet of 4-mil or thicker polyethylene sheeting.

(8) Use polyethylene sheeting to isolate contaminated from uncontaminated areas, and ensure the sheeting is attached securely in place and properly maintained at all times.

(9) Prevent contamination of carpet with ACM, or dispose of the carpet as asbestos-contaminated waste.

(10) Cover floors not being abated with at least two layers of 6-mil or thicker polyethylene sheeting. Floor sheeting shall be installed first and shall extend at least 12 inches up the walls and be taped into place. No seams shall be located at wall/floor joints. Spray-applied polyethylene coating shall not be used.

(11) Cover walls and ceilings not being abated with at least one sheet of 4-mil or thicker polyethylene sheeting. Wall sheeting shall be installed to minimize joints and shall extend at least six inches beyond wall/floor joint and be taped into place. Ceiling sheeting shall extend at least 12 inches down the wall and be sized and taped into place. No seams shall be located at wall/ceiling or wall/wall joints.

(12) Construct a decontamination enclosure system adjoining the contained work area. The decontamination enclosure shall be built in a manner that will prevent track-out of RACM, and shall consist of: a clean room equipped with appropriate storage containers and adequate space for changing clothing; an air lock; a shower room containing hot and cold or warm running water controllable at the tap; and an equipment room suitable for storage of tools and equipment.

(13) Construct a clear viewing port measuring at least 24 inches by 24 inches in an external wall of the contained work area to allow unobstructed observation of abatement activities in the work area.

(14) Operate negative pressure differential equipment with HEPA filtration continuously from the time that barrier construction is completed through the time that acceptable final clearance air monitoring results are obtained.

(15) Utilize a manometer to measure negative pressure differential and operate it in accordance with the General Requirement Section of this regulation.

## 2. Removal.

Each owner/operator engaged in a renovation asbestos project subject to this Section shall ensure that:

a. Prior to removal, all RACM is thoroughly wet through to the substrate using amended water.

b. All RACM that has been stripped or removed in sections or units shall be:

(1) Thoroughly wet during stripping or removal and shall remain wet until disposed of in accordance with this regulation and 40 CFR 61.150, as amended, and any subsequent amendments and editions;

(2) Carefully lowered to the ground or floor, not dropped or thrown; and

(3) When removed or stripped at an elevation greater than 50 feet above ground level, transported to the ground via leak-tight chutes or containers.

c. At no time shall an owner/operator allow RACM to accumulate or become dry.

d. Structural components are thoroughly wet prior to wrapping in polyethylene sheeting for disposal.

e. For facility components such as reactor vessels, large tanks, and steam generators (but not beams, which must be stripped), ACM is not required to be stripped if the following requirements are met:

(1) The component is removed, transported, stored, disposed of, or reused without disturbing or damaging any of the ACM;

(2) The component is encased in leak-tight wrappings; and

(3) The leak-tight wrapping is labeled in accordance with EPA Regulation 40 CFR 61.149(d)(1)(i),(ii),and(iii), as amended, and any subsequent amendments and editions, during all loading, unloading, and storage operations.

f. When double polyethylene bags of at least 6-mil thickness are used for waste, bags shall be leak-tight. Excess air shall be removed from bags prior to sealing using a vacuum equipped with a HEPA filtration system in accordance with OSHA regulation 29 CFR 1926.1101, as amended, and any subsequent amendments and editions.

g. ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers.

h. Any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

### 3. Cleanup.

a. Each owner/operator engaged in a renovation abatement project subject to this Section shall ensure that:

(1) Following abatement, a visual inspection of the abated substrate is performed.

(2) A coating of a compatible encapsulating agent is applied to porous surfaces that have been stripped and cleaned of ACM. The encapsulant must be allowed to thoroughly dry prior to additional cleaning or final air clearance.

(3) The air sampler or the owner's representative inspects the abated area prior to final clearance. If there is any evidence of contamination, the asbestos contractor shall perform additional wet cleaning and HEPA vacuuming.

(4) All polyethylene sheeting, except for critical barriers and the decontamination enclosure system, is removed and disposed of as asbestos-contaminated waste.

(5) With only the critical barriers and decontamination enclosure system left in place, the entire work area, including any duct work, is wet-cleaned and HEPA vacuumed until no visible residue remains.

(6) Areas exceeding clearance standards are re-cleaned by the contractor using wet methods and HEPA vacuuming. Re-cleaning, drying, and retesting shall be repeated until the satisfactory clearance standard is achieved.

(7) Following satisfactory clearance of the work area, remaining polyethylene critical barriers and decontamination enclosure systems are removed and disposed of as asbestos-contaminated waste.

(8) Portable decontamination trailers are cleaned and polyethylene sheeting disposed of as contaminated waste.

b. Re-establishment of the work area shall only occur following completion of clean-up procedures and after clearance air monitoring has been performed and documented to the satisfaction of the air sampler or of the facility owner or his representative.

c. Replacement materials shall only be installed following completion of abatement. This does not include outdoor projects subject to this regulation.

#### 4. Disposal.

The disposal requirements of the Disposal Section of this regulation shall apply.

#### D. Air Sampling and Analysis Procedures.

The background, daily, and clearance air monitoring requirements of the Air Sampling Section of this regulation shall apply.

### **SECTION XI. SMALL PROJECTS.**

#### A. Applicability.

The notification/application, work practice, air sampling, clean-up, and disposal requirements of this Section shall apply to each abatement project where the combined amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed is more than 25 but fewer than 260 linear feet on pipes, or more than 25 but fewer than 160 square feet on other facility components, or more than ten but fewer than 35 cubic feet of RACM off of facility components such that area or length could not be measured prior to abatement.

#### B. Notification/Application.

In a facility being renovated subject to this Section, the owner/operator shall provide the Department with written notification prior to any abatement and pay all applicable fees as follows:

1. Deliver the notification/application by U.S. Postal Service or commercial delivery service, facsimile transmission, by hand or by other methods deemed acceptable by the Department.

2. Postmark or deliver the notice at least four working days before asbestos stripping or removal work or any other activity begins that would break up, dislodge, or similarly disturb RACM.

3. Update/revise the notification/application and pay appropriate fees as required, when any previously-notified information changes, including but not limited to: when the amount of asbestos affected increases or decreases more than ten percent (10%), when the project start or completion date changes, and/or when the disposal site changes, and/or the project has been cancelled. The owner/operator shall notify the Department by telephone and follow up in writing as soon as possible before, but not later than, the following working day. When the amount of asbestos affected changes such that the total quantity being abated qualifies as a NESHAP project, prior approval must be granted by the Department for work to proceed.

4. The Department may waive the four working days prior notice requirement on a case-by-case basis.

#### C. Air Sampling and Analysis Procedures.

The facility owner shall ensure that air sampling is performed in accordance with applicable requirements of the Air Sampling Section of this regulation.

#### D. Work Practice and Clean-up Requirements.

1. An owner/operator engaged in a small asbestos abatement project shall:
  - a. Construct critical barriers to prevent the potential release of asbestos fibers from within the work area;
  - b. Prevent contamination of carpet with ACM, or dispose of the carpet as asbestos-contaminated waste;
  - c. Thoroughly wet all RACM prior to removal and keep it wet until disposal;
  - d. Prevent track-out and leakage of RACM onto uncontaminated surfaces;
  - e. Use HEPA vacuum equipment and wet-cleaning techniques to clean up the work area following abatement until there is no visible residue;
  - f. Ensure that ACM from within the work area is not permitted outside of the work area except in sealed, leak-tight containers;
  - g. Ensure that any person exiting or any equipment or machinery being removed from the contaminated work area is thoroughly decontaminated. If equipment or machinery is not thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container; and
  - h. Ensure porous surfaces that have been stripped or cleaned of RACM are encapsulated to secure any residual fibers that may be present. The encapsulant used must be compatible with subsequent coverings.

#### 2. Disposal.

The owner/operator shall comply with the requirements of the Disposal Section of this regulation.

### **SECTION XII. MINOR PROJECTS.**

#### A. Applicability.

The notification, work practice, clean-up, and disposal requirements of this Section shall apply to each abatement project where the combined amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed is equal to or fewer than 25 linear feet on pipes, or is equal to or fewer than 25 square feet on other facility components, or is equal to or fewer than 10 cubic feet of RACM off facility components where the area or the length or area could not be measured prior to abatement.

#### B. Notification/Application.

In a facility being abated subject to this Section:

1. The owner/operator shall provide the Department with a written application at least two working days prior to any abatement and pay all applicable fees as follows:

a. Acceptable delivery of the notification shall be by U.S. Postal Service, commercial delivery service, facsimile transmission, by hand or by other methods deemed acceptable by the Department.

b. Update/revise the notification/application and pay appropriate fees as required when any previously-notified information changes, including but not limited to: when the amount of asbestos affected increases or decreases more than ten percent (10%), when the project start or completion date changes, and/or when the disposal site changes, and/or the project has been cancelled; or

c. The owner/operator shall notify the Department by telephone and follow up in writing as soon as possible before, but not later than, the following working day. When the amount of asbestos affected changes such that the total quantity being abated qualifies as a small or NESHAP project, prior approval must be granted by the Department for work to proceed.

2. Facility employees who do not meet the definition of a contractor as defined by this regulation, or a contractor who has obtained a temporary storage license may maintain a log of all minor abatements performed during a quarter, report them to the Department within 30 calendar days after the end of the quarter, and pay applicable project fees. The log shall include, but is not limited to: the name and address of the facility being abated, amount and type of ACM removed, date(s) of removal, names of individuals who performed the abatement, exact location for temporary storage of asbestos wastes, and the name of the landfill used for disposal.

#### C. Air Sampling and Analysis Procedures.

The facility owner shall ensure that air sampling is performed in accordance with applicable requirements of the Air Sampling Section of this regulation.

#### D. Work Practice and Clean-up Requirements.

1. An owner/operator engaged in a minor asbestos abatement project shall:

a. Construct critical barriers to contain asbestos fibers released within the work area;

b. Wet all RACM prior to removal and during containerization for disposal in an approved landfill;

c. Prevent track-out and leakage of RACM onto uncontaminated surfaces;

d. Use HEPA vacuum equipment and wet-cleaning techniques to clean up the work area following abatement until there is no visible residue;

e. Ensure that ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers;

f. Ensure that any person exiting or any equipment or machinery being removed from the contaminated work area is thoroughly decontaminated. If equipment or machinery is not thoroughly decontaminated, it shall be sealed in a leak-tight container. No visible residue shall appear on the outside surface of the container;

g. Ensure porous surfaces, that have been stripped or cleaned of RACM are encapsulated to secure any residual fibers that may be present. The encapsulant used must be compatible with subsequent coverings;

h. Containerize waste in appropriately labeled impermeable containers (6-mil polyethylene sheeting, bags, and/or fiber or metal drums), and store in an area that is secured and locked; and

i. Transport asbestos waste in a manner that does not release fibers into the air and dispose of at a landfill permitted to accept asbestos waste.

## 2. Disposal.

The owner/operator shall comply with the requirements of the Disposal Section of this regulation.

### **SECTION XIII. OPERATION AND MAINTENANCE ACTIVITIES.**

#### A. Applicability.

1. The notification/application, work practice, clean-up, and disposal requirements of this Section shall apply to the non-industrial facility owner/operator and the O&M personnel covered under the facility's group license.

2. Workers are limited to an activity in which the amount of RACM disturbed does not exceed that which can be contained in one glovebag or one 6-mil polyethylene bag measuring no greater than 60 inches in length and width.

#### B. Notification/Application.

In a facility being abated that is subject to this Section:

1. The non-industrial facility owner/operator shall provide the Department with written notification/application and pay all applicable fees as follows:

a. Acceptable delivery of the notification shall be by U.S. Postal Service, commercial delivery service, facsimile transmission, by hand or by other methods deemed acceptable by the Department.

b. Update the notification when any previously-notified information changes.

c. Notify the Department by telephone and follow up in writing as soon as possible, but not later than, the original start date when a project for which notification was made has been canceled.

2. Alternately, facility employees who do not meet the definition of a contractor as defined by this regulation may maintain a log of all O&M activities performed during a quarter, report them to the Department within 30 calendar days of the end of the quarter, and pay applicable project fees. The log shall include, but is not limited to: the name and address of the facility being abated, amount and type of ACM removed, date(s) of removal, names of individuals who performed the abatement, exact location for temporary storage of asbestos wastes, and the name of the landfill used for disposal.

#### C. Air Sampling and Analysis Procedures.

The facility owner shall ensure that sampling is performed in accordance with applicable requirements of the Air Sampling Section of this regulation.

#### D. Work Practice and Clean-Up Requirements.



1. An owner/operator engaged in an operation and maintenance activity shall:
  - a. Construct critical barriers to prevent the potential release of asbestos fibers from within the work area;
  - b. Wet all RACM prior to removal and during containerization for disposal at an approved landfill;
  - c. Prevent track-out and leakage of RACM onto uncontaminated surfaces;
  - d. Use HEPA vacuum equipment and wet-cleaning techniques to clean up the work area following abatement until there is no visible residue;
  - e. Ensure that ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers;
  - f. Containerize wetted waste in appropriately labeled impermeable containers (6-mil polyethylene sheeting, bags, and/or fiber or metal drums) and store in an area that is secured and locked;
  - g. Transport asbestos waste in a manner that does not release fibers into the air, and dispose of at a landfill permitted to accept asbestos waste.

2. Each owner/operator engaged in an O&M glovebag operation shall:

- a. Ensure that the glovebag procedure is being performed only by persons who have received training in the method and are licensed as workers or supervisors in accordance with the requirements of this regulation;
- b. Ensure that the glovebag is constructed and utilized in accordance with the glovebag requirements of this regulation and OSHA 29 CFR 1926.1101, as amended, and any subsequent amendments and editions;
- c. Isolate the work area to prevent access by unprotected persons;
- d. Display danger signs in accordance with OSHA 29 CFR 1926.1101, as amended, and any subsequent amendments and editions, at all approaches to any asbestos abatement area;
- e. Remove all polyethylene sheeting, tape, glovebags and other equipment, and inspect the area for visible residue following abatement;
- f. Wet-clean the area using amended water and a HEPA vacuum after surfaces have been allowed to dry. The sequence of wet cleaning and vacuuming shall be repeated until no visible residue is observed in the work area; and
- g. Ensure that porous surfaces that have been stripped or cleaned of RACM are encapsulated to secure any residual fibers that may be present. The encapsulant used must be compatible with subsequent coverings.

E. Disposal.

The owner/operator shall comply with the requirements of the Disposal Section of this regulation.

## **SECTION XIV. GLOVEBAG TECHNIQUE.**

### **A.Applicability.**

1. The requirements of this Section shall apply to the owner/operator of any NESHAP, small, minor, or O&M abatement project when glovebag operations are implemented.

2. The owner/operator shall ensure that asbestos-containing waste from glovebag operations is wet at all times during abatement, storage, and transportation and is deposited in a landfill approved or permitted to accept asbestos waste.

### **B.Glovebag Operations.**

Glovebag systems may be used to remove ACM from straight runs of piping, elbows, and other connections when performed in compliance with the provisions of this Section and OSHA 29 CFR 1926.1101, as amended, and any subsequent amendments and editions.

1. The owner/operator shall ensure that the glovebag is constructed and utilized in accordance with the following requirements:

- a. The work area is isolated to prevent access by unprotected persons.
- b. Danger signs are displayed at all approaches to any asbestos abatement area in accordance with OSHA 29 CFR 1926.1101, as amended, and any subsequent amendments and editions.
- c. The glovebag procedure is performed only by persons who have received training in the method and are licensed as workers or supervisors in accordance with the requirements of this regulation.
- d. At least two persons shall perform glovebag removal operations.
- e. Each glovebag shall be made of 6-mil thick plastic and shall be seamless at the bottom.
- f. Each glovebag used on elbows and other connections must be designed for that purpose and used without modifications.
- g. Each glovebag shall be installed so that it completely covers the circumference of pipe or other structures where the work is to be performed.
- h. Each glovebag shall be smoke-tested for leaks and any leaks sealed prior to use.
- i. A glovebag shall be used only once and may not be slid or moved.
- j. Each glovebag shall not be used on surfaces whose temperature exceeds 150 degrees Fahrenheit.
- k. Prior to disposal, each glovebag shall be collapsed by removing air within it using a HEPA vacuum.
- l. Before beginning the operation, loose and friable material adjacent to the glovebag or glovebox operation shall be wrapped and sealed in at least two layers of 6-mil polyethylene.

m. Where a system uses an attached waste bag, such bag shall be connected to the collection bag using a hose or other material that shall withstand the pressure of ACM waste and water without losing its integrity.

n. A sliding valve or other device shall separate the waste bag from the hose to ensure no exposure when the waste bag is disconnected.

#### C. Negative Pressure Glovebag Systems.

1. Negative pressure glovebag systems shall be used to remove ACM from piping.

2. In addition to the requirements for glovebag systems in Section B above, negative pressure glovebag systems shall have a HEPA vacuum attached to the glovebag/box to prevent collapse during removal.

3. A HEPA vacuum shall be used to prevent collapse of the bag during removal and shall run continually until completion of operation, at which time the pipe shall be encapsulated, and the bag and ACM shall be isolated prior to removal of the bag from the pipe.

#### D. Negative Pressure Glovebox Systems.

Negative pressure gloveboxes may be used to remove ACM from pipe runs when the following work practices are utilized:

1. Gloveboxes shall be constructed with rigid sides and made from metal or other material that can withstand the weight of the ACM and water used during removal.

2. A negative pressure generator shall be used to create negative pressure in the system.

3. An air filtration unit shall be attached to the box.

4. The box shall be fitted with gloved apertures:

a. An aperture at the base of the box shall serve as a bagging outlet for waste ACM and water.

b. A back-up generator shall be present on site.

c. Waste bags shall consist of 6-mil or thicker plastic and be double-bagged before they are filled.

5. At least two persons shall perform the removal.

6. The box shall be smoke-tested for leaks and any leaks sealed prior to use.

7. Loose or damaged ACM adjacent to the box shall be wrapped and sealed in at least two layers of 6-mil or thicker plastic prior to the job or otherwise made intact prior to the job.

8. A HEPA filtration system shall be used to maintain pressure barrier in the box.

#### E. Air Sampling and Analysis Procedures.

1. Background and daily area monitoring shall be performed for all NESHAP glovebag/glovebox projects. Personnel air sampling in the worker's breathing zone may be used to satisfy the requirement for daily area monitoring.

2. Non-aggressive Phase Contrast Microscopy (PCM) clearance air monitoring shall, at a minimum, be required for NESHAP and small glovebag or glovebox projects.

3. If personnel fiber counts exceed the PCM clearance standard of 0.01 fibers per cubic centimeter, aggressive clearance air monitoring shall be performed.

#### F. Glovebag/Glovebox Work Practices.

1. Use of the glovebag shall be terminated, cleanup procedures contained in this Section shall be implemented, and clearance by TEM analysis performed if the owner/operator:

- a. Fails to keep RACM in the glovebag/glovebox;
- b. Fails to keep RACM adequately wet;
- c. Disturbs or dislodges RACM outside of the glovebag/glovebox; and/or
- d. Experiences glovebag failure, including any breach in the glovebag/glovebox.

2. Glovebag/Glovebox Clean-up. Following removal, the owner/operator shall ensure that:

a. Porous surfaces that have been stripped or cleaned of RACM are encapsulated to secure any residual fibers that may be present prior to removing the glovebag or glovebox from the abated pipe. The encapsulant used must be compatible with subsequent coverings.

b. All polyethylene sheeting, tape, glovebags or gloveboxes and other equipment must be removed and the area inspected for visible residue.

c. Wet-cleaning using amended water is performed, followed by HEPA vacuuming after surfaces have been allowed to dry. The sequence of wet cleaning and vacuuming shall be repeated until no visible residue is observed in the work area.

d. When required, final TEM air clearance shall be performed following visual clearance.

#### G. Disposal.

All applicable disposal requirements of this regulation shall apply.

### **SECTION XV. NON-FRIABLE PROJECTS.**

#### A. Applicability.

The requirements of this Section shall apply to the owner/operator of any renovation at any facility where the ACM being removed remains non-friable.

#### B. Notification/Application.

1. Each owner/operator shall:

- a. Contact the landfill to ensure acceptance of non-friable ACM waste;
- b. Provide the Department with a written application and obtain a Department-issued abatement license for the project four (4) working days prior to beginning abatement for NESHAP sized projects of 160 sf or 260 Lf. The license shall be maintained at the project site for the duration of the project;
- c. For all other projects, provide a written application prior to disposal;
- d. Facilities and those in possession of a temporary asbestos storage containment area license may notify the Department quarterly;
- e. Prior to disposing of a non-regulated residential structure, provide a written application to the Department;
- f. Applications must also be submitted for projects where waste will be disposed of out-of-state;
- g. Provide the following information in the written application:
  - (1) Name, address, and telephone number of property/facility owner;
  - (2) Street address of the property or facility where removal will occur;
  - (3) Amount of non-friable ACM to be abated;
  - (4) Description of material (for example, cement-like tiles, asphaltic shingles, cementitious siding, roof flashing); and
  - (5) Name, address, telephone number, contact person, and location (county, city, state) of the landfill that the owner/operator has contacted for disposal of ACM waste;
- h. The written disposal license issued by the Department must accompany the non-friable ACM waste to the landfill.

C. Work Practices.

1. The owner/operator shall prevent dust from being released during the removal of non-friable ACM to prevent exposure.
2. Category I and Category II ACM that will be or has been subjected to grinding, sanding, cutting, chipping, drilling, or abrading shall be considered regulated ACM, and the owner/operator shall comply with all applicable requirements of this regulation.
3. Category I and Category II ACM that will not be or has not been subjected to grinding, sanding, cutting, chipping, drilling, or abrading shall be considered non-regulated ACM, and the owner/operator shall comply with all applicable requirements of OSHA 29 CFR 1926.1101, as amended, and any subsequent amendments or editions.
4. The owner/operator shall ensure that ACM and asbestos-contaminated waste is not intentionally burned or recycled.

D. Disposal.

1. Transport and disposal shall occur in a manner that will not permit the release of asbestos fibers into the air.

2. Disposal shall occur at a landfill permitted or approved to accept asbestos waste.

3. All containers shall be labeled with the following warning:

DANGER

CONTAINS ASBESTOS FIBERS

AVOID CREATING DUST

CANCER AND LUNG DISEASE HAZARD

4. The owner/operator shall:

a. Obtain a waste shipment record or other shipment manifest at the landfill to document disposal of all asbestos waste;

b. Ensure that a waste shipment record or other shipment manifest is signed by the landfill operator; and

c. Submit a copy of the waste shipment record or other shipment manifest to the Department within 30 working days after abatement completion.

**SECTION XVI. STANDARDS FOR DEMOLITIONS.**

A. Applicability.

The requirements of this Section shall apply to the owner/operator of a facility to be demolished.

B. Notification/Application.

1. Each owner/operator of a demolition to which this Section applies shall:

a. Submit to the Department a written DHEC demolition application at least ten working days in advance of the proposed demolition start date.

b. Delivery of the application shall be by U.S. Postal Service, commercial delivery service, by hand or by other methods deemed acceptable by the Department.

c. Acceptable methods of payment shall be by check or money order made payable to SCDHEC, credit card (VISA, MasterCard, or Discover), and cash.

d. Submit a written demolition project license application for each separate facility that includes all information required on the application form.

e. Submit a complete, legible copy of the building inspection report, which must be less than three years old, for each facility to be demolished.

2. Obtain an asbestos demolition license for any facility, regardless of whether the required building inspection indicates the presence of ACM.

3. When a demolition will begin on a date earlier than the previously-notified start date, the facility owner/operator shall provide the Department with a written notification of the new start date at least ten working days prior to the previously-notified demolition start date.

4. The owner/operator of a demolition operation covered by this section shall:

a. Notify the Department by telephone no later than the original start date when the demolition will begin on a date later than the previously-notified start date.

b. Provide the Department with a revised written application of the new start date no later than the previously-notified start date.

c. Provide the Department with a revised written notification/application immediately when any information pertaining to the demolition project changes, including but not limited to, the start and/or completion date, the demolition contractor, or the landfill.

5. Any facilities being demolished under order of a State or local government agency because the facility is structurally unsound, in imminent danger of collapse, and is a threat to public health or safety may be exempt from the ten-working day notification requirement. However, the owner/operator shall submit a complete demolition license application and written justification documents to the Department for approval prior to commencing the demolition activities.

a. The application shall include all of the following information:

(1) Indication whether the notification is an original, revision, or cancellation;

(2) Name, address, and telephone number of the owner/operator;

(3) Indication that demolition is the type of operation;

(4) Description of the facility or affected part of the facility, including the square footage, number of floors, age, and prior, present, and intended use of the facility;

(5) Description of the procedures and analytical methods used to detect the presence of ACM (regulated and nonregulated), date of inspection, and name, address, telephone number, and license number of the building inspector;

(6) Location and street address (including building number or name and floor or room number, if appropriate), city, county, and state of the facility being demolished or renovated;

(7) Scheduled starting and completion dates of asbestos renovation or demolition;

(8) Description of planned demolition work to be performed, emission control measure(s) to be employed, and a description of the affected facility or facility components;

(9) Description of the engineering controls and procedures to be used to comply with the work practice requirements of this regulation;

(10) Name and location of the waste disposal site where the regulated asbestos-containing waste material will be deposited. Regulated asbestos-containing waste must be deposited into a landfill approved or permitted to accept asbestos waste;

(11) Description of procedures to be followed in the event that unexpected RACM is found;

(12) Name, address, and telephone number of the waste transporter; and

(13) Printed name and signature of the owner/operator submitting the notification and the date signed.

b. The owner/operator shall submit to the Department a clear, legible copy of the signed order that contains all of the following information along with the completed demolition project application:

(1) The name, title, and authority of the State or local government representative who ordered the demolition;

(2) The date that the order was issued; and

(3) The date on which the demolition was ordered to begin.

#### C. Removal of ACM prior to Demolition.

1. Any demolition of a structure or portion of a structure that contains structural members or components composed of or covered by ACM shall be preceded by removal of all such materials.

2. All ACM, with the exception of those material referenced in Paragraph E. of this Section, shall be removed in accordance with work practice requirements for applicable NESHAP, small, or minor projects prior to demolition.

#### D. Air Sampling Procedures.

Air monitoring is not required during a demolition except when necessary due to an extenuating circumstance and/or required by the Department.

#### E. Exemptions from Removal of ACM prior to Demolition.

The following categories of asbestos-containing materials may be left in place during demolition:

1. ACM on a facility component that is encased in concrete or other similarly hard material and is adequately wet whenever exposed during demolition.

2. RACM that was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, cannot be safely removed. If not removed for safety reasons, all exposed RACM and any asbestos-contaminated debris must be treated as regulated asbestos-containing waste material.



3. Category I and Category II nonfriable mastic, glue, and adhesive ACM that is not friable or in poor condition, and where the probability is low that the materials will become crumbled, pulverized, or reduced to powder during demolition operations.

#### F. Disposal of Demolition Debris.

1. Waste that does not contain asbestos may be disposed of as construction debris at a landfill approved or permitted to accept such waste.

2. The owner/operator shall comply with the requirements of the Disposal Section of this regulation and shall ensure that asbestos-containing or asbestos-contaminated waste materials are not burned or recycled.

#### G. Project License Fees.

1. A project license is required for every facility that is to be demolished, including those that have been destroyed by fire or those whose required building survey indicates there is no ACM present.

2. The Department shall not issue a project license for a demolition until all requested information has been submitted and reviewed and all applicable fees have been paid.

3. Fees shall not be refunded for projects for which the Department has issued a project license.

4. A project license that has been issued shall automatically become invalid if an instrument of payment is returned for insufficient funds, in which case the licensee shall be subject to enforcement action for operation without a valid license.

### **SECTION XVII. OUTDOOR PROJECTS.**

#### A. Applicability.

The notification, work practice, clean-up, and disposal requirements of this Section shall apply to each owner/operator of any regulated O&M or minor, small or NESHAP outdoor renovation.

#### B. Notification/Application.

##### 1. NESHAP Project.

a. Each owner/operator of a renovation or demolition operation to which this Section applies shall:

(1) Provide the Department with written notification/application at least ten working days prior to any renovation or demolition and pay all applicable project fees. Acceptable delivery of the notification and fee payment is by U.S. Postal Service or commercial delivery service, by hand, or by other methods deemed acceptable by the Department.

(2) Update the notification/application and pay appropriate fees as necessary when any previously-notified information changes, including but not limited to, when the amount of asbestos affected changes, when the project start or completion date changes, or when the disposal site changes.

(3) Provide the Department with a legible copy of the building inspection report upon request.

(4) Begin abatement on the start date contained in the Department-issued asbestos project license.

b. When the asbestos stripping or removal operation covered by this Section will begin on a date earlier than the previously-notified start date, the owner/operator shall provide the Department with written notification of the new start date at least ten working days before asbestos stripping or removal work will begin.

c. When the asbestos stripping or removal operation covered by this Section will begin after the date contained in the initial notification and in the asbestos project license issued by the Department, the owner/operator must:

(1) Notify the Department of the new start date by telephone as soon as possible before, but not later than, the original start date; and

(2) Provide the Department with an updated written notice of the new start date as soon as possible before, but not later than, the original start date. Acceptable delivery of the updated notice is by the U.S. Postal Service or commercial delivery service, by hand, or by other methods deemed acceptable by the Department.

d. The written notification/application shall include:

(1) Indication whether the notification is an original, revision, or cancellation;

(2) Name, address, and telephone number of the owner/operator;

(3) Type of operation: demolition or renovation;

(4) Description of the facility or affected part of the facility, including the square footage, number of floors, age, and prior, present, and intended use of the facility;

(5) Description of the procedures and analytical methods used to detect the presence of ACM (regulated and non-regulated), date of inspection, and name, address, telephone number, and license number of the building inspector;

(6) An estimate of the approximate amount of RACM and Category II nonfriable ACM to be removed from the facility in terms of length of pipe in linear feet, in terms of surface area for other facility components in square feet, or in terms of volume if already off of facility components in cubic feet;

(7) Location and street address (including building number or name and floor or room number, if appropriate), city, county, and state of the facility being demolished or renovated;

(8) Scheduled starting and completion dates of asbestos renovation or demolition.

(9) Description of planned renovation or demolition work to be performed, emission control measure(s) to be employed, and a description of the affected facility or facility components;

(10) Description of the engineering controls and procedures to be used to comply with the work practice requirements of this regulation;

(11) Name and location of the waste disposal site where the regulated asbestos-containing waste material will be deposited. Regulated asbestos-containing waste must be deposited into a landfill approved or permitted to accept asbestos waste;

(12) Name, address, and telephone number of the waste transporter; and

(13) Printed name and signature of the asbestos owner/operator submitting the notification and date signed.

e. A complete notification/application shall contain all of the above information and shall be reported on a form similar to the one found in 40 CFR Part 61, Subpart M, as amended, and any subsequent amendments and editions.

## 2. Small Project.

In a facility being renovated subject to this Section, the owner/operator shall provide the Department with at least a five calendar day advance written notification of intent to renovate and pay applicable fees as follows:

a. Acceptable delivery of the notification/application shall be by U.S. Postal Service, commercial delivery service, by hand, facsimile transmission, or by other methods deemed acceptable by the Department.

b. Postmark or deliver the notice before asbestos stripping or removal work or any other activity begins that would break up, dislodge, or similarly disturb RACM.

c. Update the notification/application when any previously-notified information changes and pay additional project fees as necessary.

d. The Department may waive the five calendar-day notice on a case-by-case basis.

## 3. Minor or O&M Projects.

In a facility being abated subject to this Section:

a. The owner/operator shall provide the Department with written notification/application prior to any abatement and pay all applicable fees as follows:

(1) Acceptable delivery of the notification/application shall be by U.S. Postal Service, commercial delivery service, facsimile transmission, by hand or by other methods deemed acceptable by the Department.

(2) Update the notification/application when any previously-notified information changes.

(3) Notify the Department by telephone and follow up in writing as soon as possible, but not later than, the original start date when a project for which notification was made has been canceled; or

b. Facility employees who do not meet the definition of a contractor as defined by this regulation or a contractor who has obtained a temporary storage license may maintain a log of all minor abatements performed during a quarter, report them to the Department within 30 calendar days of the end of the quarter, and pay applicable project fees. The log shall include, but is not limited to: the name and address of the

facility being abated, amount and type of ACM removed, date(s) of removal, names of individuals who performed the abatement, exact location for temporary storage of asbestos wastes, and the name of the landfill used for disposal.

#### C. Air Sampling and Analysis Procedures.

1. For projects subject to 40 CFR Part 763, AHERA, as amended, and any subsequent amendments or editions, the facility owner shall ensure that a licensed air sampler performs clearance air monitoring after abatement in areas to be reoccupied, including porticos and covered exterior walkways, and abatement on exterior portions of mechanical systems used to condition interior spaces.

2. Air monitoring is not required for Outdoor Projects that are not subject to EPA 40 CFR Part 763, AHERA regulation.

#### D. Work Practice Requirements.

##### 1. Preparation.

The owner/operator shall minimize, to the extent reasonable and necessary, the exposure to persons downwind of the project.

##### 2. Removal.

a. Wet removal methods shall be used.

b. There shall be no release of visible emissions during preparation, removal, or cleanup.

##### 3. Clean-up.

a. Following removal, the owner/operator shall ensure that:

(1) The abated area is thoroughly cleaned using wet methods and amended water and surfaces have been allowed to dry.

(2) Once dry, the abated area is vacuumed using a vacuum equipped with HEPA cartridges or filters.

(3) The sequence of wet cleaning and vacuuming is repeated until no visible residue can be observed.

b. The facility owner shall ensure that the work area is inspected for any remaining visible residue. Evidence of contamination will necessitate additional cleaning by the contractor.

c. For porous surfaces that have been stripped or cleaned of RACM, the owner/operator shall ensure that a coat of encapsulant is applied to the abated surface to secure any residual fibers that may be present. The encapsulant chosen must be compatible with subsequent coverings.

#### E. Disposal.

The disposal requirements of the Disposal Section of this regulation shall apply to outdoor projects.

## **SECTION XVIII. ENCAPSULATION AND ENCLOSURE.**

### **A.Applicability.**

1. The notification/application, air sampling, work practice, clean-up, and disposal requirements of this Section shall apply to each owner/operator engaged in an encapsulation or enclosure operation where mechanical sprayers will be utilized and the potential to disturb RACM will involve amounts greater than 160 square or 260 linear feet of surfacing materials or thermal system insulation.

2. Surfaces that have been previously coated or treated with an encapsulant and that are not in poor condition are exempt from the requirements of this Section.

### **B.Notification/Application.**

1. In a facility with RACM being encapsulated, the owner/operator shall:

a. Provide the Department with written notification/application at least ten complete working days prior to beginning any encapsulation activities.

b. Notify the Department as soon as possible by telephone and follow-up in writing when any previously-notified information changes or when a previously-notified project has been canceled.

2. Acceptable delivery of notification/application shall be by U. S. Postal Service, commercial delivery service or facsimile transmission, by hand, or by other methods deemed acceptable by the Department.

### **C.Air Sampling and Analysis Procedures.**

1. Background Monitoring.

a. Background ambient air sampling shall be required.

b. At least five air samples shall be collected prior to the start of abatement activities in order to obtain an index of background airborne fiber concentrations.

c. Representative samples should be taken both inside and outside the work area within the facility to establish existing ambient air levels under normal activity conditions.

d. The air sampler shall document any variations and justifications for the variances, and shall provide the information to the Department upon request.

2. Clearance.

The owner/operator shall ensure that non-aggressive TEM clearance air monitoring is conducted prior to re-occupancy of any area that has been encapsulated.

### **D.Work Practice Requirements.**

1. Preparation.

a. The owner/operator of an encapsulation or enclosure operation shall:

(1) Define the work area using barrier tape and danger signs in accordance with OSHA 29 CFR 1926.1101, as amended, and any subsequent amendments and editions.

(2) Shut down, lock, and tag out all HVAC equipment in or passing through the work area.

(3) Remove existing filters and dispose of as asbestos-containing waste.

(4) Securely seal all intake and exhaust openings and any seams in system components with 6-mil or thicker polyethylene sheeting and tape.

(5) Securely seal each opening between the work area and uncontaminated areas, including but not limited to windows, doorways, elevator openings, corridor entrances, drains, ducts, electrical outlets, grills, grates, diffusers, and skylights, with a critical barrier consisting of at least one sheet of 6-mil or thicker polyethylene sheeting and tape.

(6) Thoroughly clean and remove all movable objects from the work area.

(7) Thoroughly clean, then cover and secure all non-movable objects in the work area with at least one layer of 4-mil or thicker polyethylene sheeting.

(8) Cover and secure all surfaces not being encapsulated or enclosed with at least one layer of 4-mil polyethylene sheeting for walls or ceilings and 6-mil polyethylene sheeting for floors.

## 2. Encapsulation/Enclosure Procedures.

### a. During any encapsulation of RACM, the owner/operator shall ensure that:

(1) The encapsulant chosen for use is compatible with the substrate to which it will be applied and is appropriate for the application intended.

(2) When airless sprayers are utilized, nozzle pressure shall be adjusted between 400 and 1,500 pounds per square inch (psi).

(3) Loose, damaged, or fallen RACM is cleaned immediately using wet methods and HEPA vacuuming.

(4) RACM is not tracked from the work area onto uncontaminated surfaces.

(5) Once all encapsulated surfaces have completely dried, each surface is wet wiped or HEPA vacuumed.

### b. During any enclosure of RACM, the owner/operator shall ensure that:

(1) The enclosure is constructed air-tight so as to prevent the escape of airborne asbestos fibers.

(2) Loose, damaged, or fallen RACM is cleaned immediately using wet methods and HEPA vacuuming and is properly packaged for disposal.

(3) RACM is not tracked from the work area onto uncontaminated surfaces.

(4) Wet methods and HEPA vacuums are used to clean any fallen RACM immediately.

### 3. Disposal.

The requirements of the Disposal Section of this regulation shall apply.

## **SECTION XIX. REQUIREMENTS FOR TRAINING COURSES, INSTRUCTORS, AND TRAINING PROVIDERS.**

### A. Asbestos Training Course Licenses.

1. An asbestos training course provider who intends to present asbestos training courses within the State shall submit an application for approval, for each initial or refresher training course discipline to be taught, that contains all information necessary to verify qualifications as required by the regulation.

2. An asbestos training course provider must have a separate Department-issued license for each different initial or refresher training course discipline.

3. Licenses for asbestos training course providers will be restricted to courses approved by the Department in accordance with the requirements of this regulation.

4. Each asbestos course license is valid for one year from date of issue, regardless of the number of times the course is taught during the year.

5. Each individual seeking to teach or instruct any portion of any mandatory asbestos training course, regardless of discipline, must submit an instructor application that contains all information necessary to verify qualifications as required by this Section and be approved by the Department.

6. When an asbestos training course instructor seeks to conduct mandatory asbestos training courses in more than one discipline, the instructor must be approved for each separate discipline by the Department.

7. Upon initial approval and licensing of an asbestos training course, the Department will audit and assess the training course provider an initial audit fee prescribed in this regulation.

8. Upon renewal of a training course license, the training course provider will be assessed the annual license renewal fee prescribed in this regulation.

9. An asbestos training course must be approved and currently licensed by the Department on the date that it is taught to be acceptable as a basis for documentation that the person receiving the course certificate has completed the requisite training for asbestos accreditation in any specific work practice topic or discipline.

### B. Personnel Licensing Requirements.

In order for an initial or refresher training course in any discipline to be acceptable as a basis for personnel licensing pursuant to this regulation, the course must be licensed and instructor(s) must be approved by the Department.

### C. Department Approval.

To qualify for Department approval, an initial or refresher training course in any discipline shall meet the following requirements:

## 1. Course Content.

### a. Each course shall:

(1) Correspond only to a single discipline; and

(2) Provide coverage of specific topics, including instruction in the requirements of this regulation as requested by the Department, and satisfy the requirements of:

(a) The AHERA Model Contractor Accreditation Plan, 40 CFR 763, Subpart E, Appendix C (Federal Register, Volume 59, Number 23, Thursday, February 3, 1994), as amended, and any subsequent amendments and editions, and this regulation; and

(b) The 16-hour Operation and Maintenance Worker Course as specified in this Section.

b. Initial training courses for all supervisors and workers shall include hands-on glovebag training with smoke testing of the glovebag seal in accordance with OSHA 29 CFR 1926.1101(g)(5)(ii), as amended, and any subsequent amendments and editions.

c. Supervisor and worker refresher course hands-on training shall be required and shall include instructor demonstrations; video applications; and written illustrations or representations or other methods designed to communicate work practice procedures to the student. Students are not required to handle equipment or to participate in simulated abatement activities.

## 2. Course Presentation.

a. An initial worker or O&M worker training course may be conducted by a single qualified instructor if the instructor meets the minimum requirements of this Section.

b. Initial training courses in all disciplines (except worker) shall be taught by at least two Department-approved instructors.

## 3. Duration of Training.

a. A training course shall not include more than eight hours of training during a single 24-hour period.

b. One day of training equals no less than six and one-half hours of actual classroom or hands-on activities.

c. The total number of hours required for any initial training course shall be completed within a period not to exceed 14 calendar days.

## 4. Effectiveness of Training.

a. Instructors shall be evaluated by Department-conducted on-site audits or by audits conducted by representatives from states with whom the Department has established reciprocity.

b. Training providers shall conduct courses in a physical environment conducive to learning (such as a classroom).



- c. The maximum enrollment of an initial asbestos course shall be 40 participating students.
- d. There shall be no more than ten students per instructor during all hands-on portions of initial training.

#### 5. Foreign-Language Instruction.

a. Worker course instructors and students shall be fluent in the language in which the course is being taught.

(1) An English-speaking instructor shall not use an interpreter to instruct foreign-language trainees.

(2) Training courses in all disciplines (except worker) shall be conducted only in English.

b. The training provider shall provide trainees with course materials accurately translated into the language in which the course is being conducted.

#### 6. Testing.

a. At the conclusion of each initial or refresher course, the training provider shall administer an examination in written or oral form to any trainee seeking to obtain a license to perform asbestos-related activities. Oral examinations are allowed to be administered only to individuals seeking training in the worker category.

b. The training provider shall administer an examination designed to test the trainees' familiarity with those issues relevant to the safe and proper performance of asbestos projects.

c. The training provider shall construct the course examination from a pool of validated questions and shall prepare a new examination for each course presentation.

d. A trainee who fails to pass an initial examination by not achieving a minimum score of 70 on a 100-point scale may be retested once. Upon failing to pass an examination on the second attempt, the trainee shall retake the entire training course before being allowed to retest for that discipline.

e. The Department may approve alternative testing it deems appropriate.

#### 7. Certificates.

a. The training course provider shall issue a unique numbered certificate to each student who successfully completes the training course and passes the examination.

b. Each numbered certificate shall include the following information:

(1) Name and last four digits of the Social Security number of the trainee;

(2) Unambiguous course title indicating the discipline and specifying whether the training is an initial or refresher course;

(3) A unique certificate number;

(4) Inclusive dates of training course;

(5) Examination date;

(6) A statement indicating that the person whose name appears on the certificate has completed the training course and successfully passed an examination;

(7) For courses covered under 40 CFR Part 763, Subpart E, Appendix C, as amended, and any subsequent amendments and editions, a certificate expiration date that is one year after the date the course was completed and the applicable examination passed;

(8) The name, address, and telephone number of the training provider;

(9) The printed name and signature of the principal instructor;

(10) Training course location; and

(11) A statement that the person receiving the certificate has completed the requisite training for asbestos accreditation under Title II of Section 206 of the Toxic Substances Control Act (15 U.S.C.A. Section 2646), with the exception of O&M certificates.

#### 8. Notifications and Reporting.

a. A training provider who intends to present a training course within the state shall notify the Department in writing at least ten calendar days prior to the first day of the course. The written notification must include the following information:

(1) Training provider name, address, telephone number, and contact person;

(2) Training course title;

(3) Inclusive dates of course and applicable exam;

(4) Daily start and completion times;

(5) Location and detailed directions to course facility;

(6) Language in which the course is taught;

(7) Names of the instructors; and

(8) A copy of the training course agenda. (If the agenda is identical to one previously submitted to the Department, an additional copy is not required.)

b. Within seven days of conclusion of a training course presented within the State, the training provider shall submit the following information to the Department:

(1) Name of the course indicating whether initial or refresher;

(2) Inclusive dates of the course and examination;

(3) Names of all course instructors and topics taught;

(4) The course location;

(5) The name and Social Security number of every trainee, including names of those who did not successfully pass or otherwise complete the course;

(6) The unique certificate numbers of every trainee who completed the course and passed the examination; and

(7) Name, address, and telephone number of the training provider.

c. Out-of-state training providers shall submit any information specified in this Section to the Department upon request.

d. Failure to submit a written course notification or course roster in the timeframe prescribed by this Section may result in the rejection of the course and certificates for licensure by the Department.

#### 9. Record Keeping.

a. The person, sole proprietorship, public corporation, or incorporated entity operating as a training provider shall retain copies of records related to asbestos training approved pursuant to this regulation for three years or for a period of time as defined in Title II, Section 206 of the Toxic Substances Control Act of the United States (15 U.S.C.A. Section 2646), as amended.

b. In the event that ownership of the sole proprietorship, public corporation, or incorporated entity operating as a training provider is transferred to a different owner, all records maintained during the previous three years shall be transferred and maintained by the new owner.

c. Records that must be maintained shall include those defined in Title II, Section 206 of the Toxic Substances Control Act of the United States (15 U.S.C.A. Section 2646), as amended, and in all cases shall include the following:

(1) Course curriculum materials;

(2) Examinations and scores of all persons who have taken examinations;

(3) Instructor applications and resumes;

(4) Training course approval applications;

(5) Rosters of individuals taking training courses;

(6) Copies of training course notifications; and

(7) Copies of all correspondence with federal and/or state accreditation agencies regarding instructor and training course approvals, disapprovals, suspensions, or audits.

#### D. Operation and Maintenance (O&M) Worker Course.

1. An initial O&M training course shall be at least 16 hours in length and shall provide, at a minimum, information on all of the following topics:

a. The physical characteristics of asbestos, including fiber size, aerodynamic characteristics, and physical appearance.

b. The health hazards of asbestos, including the nature of asbestos-related diseases, routes of exposure, dose-response relationships, synergism between cigarette smoking and asbestos exposure, latency period of diseases, and health basis for the standards.

c. Typical locations, uses, and types of ACM; and recognition of damage, deterioration, and delamination of ACM.

d. Employee personal protective equipment, including the types and characteristics of respirators; limitations of respirators; proper selection, inspection, donning use, maintenance and storage procedures for respirators; methods for field testing of the face-piece-to-face seal (positive and negative-pressure fit checks); qualitative and quantitative fit test procedures; variability between field and laboratory protection factors that alter respiratory fit (e.g., facial hair); the components of a proper respiratory protection program; selection and use of personal protective clothing; use, storage, and handling of non-disposable clothing; and regulations covering personal protective equipment.

e. Air monitoring procedures and requirements included under OSHA 29 CFR 1926.1101, as amended, and any subsequent amendments and editions, including a description of equipment and methods, reasons for air monitoring, types of samples, and current standards with proposed changes.

f. Description of the proper methods of handling RACM to include state-of-the-art work practices for asbestos O&M activities including: purpose, proper construction, and maintenance of barriers; posting of warning signs; electrical and ventilation system lockout/tagout; proper working techniques for minimizing fiber release; use of wet methods and surfactants; use of HEPA vacuums; and proper cleanup and disposal procedures. Work practice requirements as they apply to removal, encapsulation, enclosure, and repair shall be discussed individually.

2. A yearly review course shall be one day in length and shall review the health hazards associated with exposure to asbestos; the locations, uses, types, and condition of ACM; hands-on activities; updated information on state-of-the-art procedures and equipment; and regulatory changes and interpretations. Actual instruction time shall be a minimum of six and one-half hours. The Department may request coverage of specific topics.

3. The requirements of this Section pertaining to course presentation, effectiveness of training, foreign-language instruction, testing, certificates, notification and reporting, record keeping, qualifications for instructors, course approval, and periodic audits shall apply to O&M courses.

#### E. Qualifications for Instructors of Non-Work Practice Topics.

1. Applicants seeking approval to teach segments of asbestos training courses other than work practice or hands-on exercises shall be actively working in the field of expertise for which he or she is conducting training.

2. The following documentation is required for instructors of non-work practice topics:

a. A copy of a high school, General Education Development (GED), or college/university diploma;

- b. A copy of all professional licenses relevant to the subject matter being taught; and
- c. The name, address, and telephone number of the applicant's current employer.

F. Initial and Refresher Course Instructor Qualifications.

The Department reserves the right to reject instructor training and/or experience that it deems unacceptable for qualification.

1. Worker Discipline.

a. Previous Training.

The applicant shall meet current EPA and Department accreditation requirements for supervisors.

b. Education/Asbestos Work Experience.

The applicant shall meet at least one of the following education/asbestos work experience combinations:

(1) If the applicant does not possess either a GED or high school diploma, the applicant shall:

(a) Have at least 360 instructional hours as an instructor in an EPA-approved worker course; and

(b) Have at least 1,440 hours experience in a worker or supervisory capacity of contained work areas.

(2) If the applicant possesses either a high school or GED diploma, the applicant shall:

(a) Have at least 960 hours of documented experience in a worker, supervisory, or consulting capacity of contained work areas; or

(b) Have at least 240 documented hours as an instructor in an asbestos worker or supervisor course.

(c) The applicant may substitute 240 documented hours of occupational safety, health, and environmental instructional hours taught in courses required to meet federal or State regulations for the instructional hours required in Paragraph F.1.b.(2)(b) of this Section.

(3) If the applicant possesses at least an associate degree from a regionally-accredited college/university, the applicant shall:

(a) Have at least 480 hours of documented experience in a worker, supervisory, or consulting capacity of contained work areas; or

(b) Have at least 120 documented hours as an instructor in an asbestos worker or supervisor course.

(c) The applicant may substitute 120 documented hours of occupational safety, health, and environmental instruction taught in courses required to meet federal or State regulations for the instructional hours required in Paragraph F.1.b.(3)(b) of this Section.

## 2. Supervisor Discipline.

### a. Previous Training.

The applicant shall meet current EPA accreditation requirements for supervisors.

### b. Education Asbestos Work Experience.

The applicant shall meet at least one of the following education/asbestos work experience combinations:

(1) If the applicant does not possess either a high school or GED diploma, the applicant shall:

(a) Have at least 360 documented hours as an instructor in an EPA-approved supervisor course; and

(b) Have at least 1,440 hours of documented experience in a supervisory capacity of contained work areas.

(2) If the applicant possesses either a high school or GED diploma, the applicant shall:

(a) Have at least 960 hours of documented experience in a supervisory capacity of contained work areas; or

(b) Have at least 240 documented hours as an instructor in an asbestos worker or supervisor course.

(c) The applicant may substitute 240 documented hours of occupational safety, health, and environmental instruction taught in courses required to meet federal or State regulations for the instructional hours required in Paragraph F.2.b.(2)(b) of this Section.

(3) If the applicant possesses at least an associate degree from a regionally-accredited college/university, the applicant shall:

(a) Have at least 480 hours experience in a worker, supervisory, or consulting capacity of contained work areas; or

(b) Have at least 120 instructional hours as an instructor in an asbestos worker or supervisor course.

(c) The applicant may substitute 120 hours of occupational safety, health, and environmental instructional hours taught in courses required to meet federal and State regulations for the instructional hours required in Paragraph F.2.B.(3)(b) of this Section.

## 3. Management Planner Discipline.

### a. Previous Training.

The applicant shall meet current EPA accreditation requirements for management planners.

b. Education/Asbestos Work Experience.

The applicant shall meet at least one of the following education/asbestos work experience combinations:

(1) If the applicant possesses either a high school or GED diploma, the applicant shall:

(a) Have documented management planning experience showing at least 25 management plans written in the last three years, or documented experience as the project manager for at least 25 asbestos projects in the last three years, or a combination of management plans and projects managed; or

(b) Have at least 48 documented hours as an instructor in an EPA-approved management planner course.

(c) The applicant may substitute 48 documented hours of occupational safety, health, and environmental instruction taught in courses required to meet federal or State regulations for the instructional hours required in Paragraph F.3.b.(1)(b) of this Section.

(2) If the applicant possesses at least an associate degree from a regionally-accredited college/university, the applicant shall:

(a) Have documented management planning experience showing at least 12 management plans written in the last three years, or documented experience as the project manager for at least 12 asbestos projects in the last three years, or a combination of management plans and projects managed; or

(b) Have at least 32 documented hours as an instructor in an EPA-approved management planner course.

(c) The applicant may substitute 32 documented hours of occupational safety, health, and environmental instruction taught in courses required to meet federal or State regulations for the instructional hours required in Paragraph F.3.b.(2)(b) of this Section.

4. Building Inspector Discipline.

a. Previous Training.

The applicant shall meet current EPA accreditation requirements for asbestos building inspectors.

b. Education/Asbestos Work Experience.

The applicants shall meet at least one of the following education/asbestos work experience combinations:

(1) If the applicant possesses either a high school or GED diploma, the applicant shall:

(a) Have documented experience including asbestos inspections in at least one million square feet of building space in the last three years; or

(b) Have at least 60 documented hours as an instructor in an EPA-approved building inspector course.

(c) The applicant may substitute 60 documented hours of occupational safety, health, and environmental instruction taught in courses required to meet federal or State regulations for the instructional hours required in Paragraph F.4.b.(1)(b) of this Section.

(2) If the applicant possesses at least an associate degree from a regionally-accredited college/university, the applicant shall:

(a) Have documented experience including asbestos inspections in at least 500,000 square feet of building space in the last three years; or

(b) Have at least 40 documented hours as an instructor in an EPA-approved building inspector course.

(c) The applicant may substitute 40 documented hours of occupational safety, health, and environmental instruction taught in courses required to meet federal or State regulations for the instructional hours required in Paragraph F.4.b.(2)(b) of this Section.

#### 5. Project Designer Discipline.

##### a. Previous Training.

The applicant shall meet current EPA accreditation requirements for asbestos project designers.

##### b. Education/Asbestos Work Experience.

The applicants shall meet at least one of the following education/asbestos work experience combinations:

(1) If the applicant possesses either a high school or GED diploma, the applicant shall:

(a) Have documented asbestos project design experience including the design of at least 12 asbestos projects in the last three years; or

(b) Have at least 30 documented hours as an instructor in an EPA-approved asbestos project designer course.

(c) The applicant may substitute completion of 30 documented hours of occupational safety, health, and environmental instruction taught in courses required to meet federal or State regulations for the instructional hours required in Paragraph F.5.b.(1)(b) of this Section.

(2) If the applicant possesses at least an associate degree from a regionally-accredited college/university, the applicant shall:

(a) Have documented asbestos project design experience including the design of at least six asbestos projects in the last three years; or

(b) Have at least 20 documented hours as an instructor in an EPA-approved asbestos project designer course.



(c) The applicant may substitute 20 documented hours of occupational safety, health, and environmental instruction taught in courses required to meet federal or State regulations for the instructional hours required in Paragraph F.5.b.(2)(b) of this Section.

#### G.Documentation of Instructor Qualifications.

1. Applicants seeking approval to teach work-practice or hands-on topics or to act as a sole instructor shall submit documentation of training, education, and work experience as required herein.

#### 2. Documentation of Training.

a. The applicant shall submit a copy of initial and subsequent refresher certificates of training from courses approved by the EPA or by an EPA-accredited state, and provide for each course the title, dates of instruction, names of instructors, name, address, and telephone number of the training provider.

b. Instructors shall take refresher training from a training provider not affiliated with the instructor for at least one discipline every year. Instructors teaching multiple disciplines shall alternate among the different disciplines taught.

#### 3. Documentation of Education.

The applicant shall submit a copy of high school, GED, or college or university diploma or the name and address of the conferring institution.

#### 4. Documentation of Asbestos Work Experience.

a. An applicant for instructor of worker or supervisor training courses shall submit a detailed description of job duties and responsibilities as an asbestos worker, foreman, supervisor, or consultant, including all of the following:

- (1) Inclusive dates of employment;
- (2) The name of the employer;
- (3) Types of ACM removed;
- (4) Number of workers supervised;
- (5) Name, address, and telephone number of each different employer; and
- (6) Name of immediate supervisor at each different employer.

b. An applicant for instructor of building inspector, management planner, or project designer training courses shall include all relevant information concerning experience completing inspections, management plans, or project designs, including all of the following:

- (1) Size and location of buildings inspected;
- (2) Descriptions of management plans, projects managed, or projects designed;

- (3) Name, address, and telephone numbers of building owners;
- (4) Name, address, and telephone numbers of all employers; and
- (5) Inclusive dates of employment.

c. Documentation of Instructor Experience.

The applicant shall submit a detailed description of instructor experience, including all of the following:

- (1) Name of training courses taught;
- (2) Topics taught for each course;
- (3) Inclusive dates of each training course;
- (4) Total hours taught for each training course; and
- (5) Name, address, and telephone number of each training organization with which experience is claimed.

H. Work Practice Topics.

Instructors shall meet the qualifications for instructors listed in Section XIX.F. above in order to teach the following asbestos Work Practice Topics:

1. O&M Worker and Worker Refresher:
  - a. State-of-the-Art Work Practices.
  - b. Hands-on Exercises (initial course only).
2. Worker and Worker Refresher:
  - a. State-of-the-Art Work Practices.
  - b. Hands-on Exercises (initial course only).
3. Supervisor and Supervisor Refresher:
  - a. State-of-the-Art Work Practices.
  - b. Techniques for Asbestos Abatement Activities.
  - c. Hands-on Exercises (initial course only).
4. Management Planner and Management Planner Refresher:
  - a. Evaluation/Interpretation of Survey Results.

- b. Hazard Assessment.
  - c. Developing an Operations and Maintenance (O&M) Plan.
  - d. Record Keeping for the Management Planner.
  - e. Assembling and Submitting the Management Plan.
5. Building Inspector and Building Inspector Refresher:
- a. Pre-inspection Planning and Review of Previous Inspection Records.
  - b. Inspecting for Friable and Non-friable Asbestos Containing Materials (ACM).
  - c. Assessing the Condition of Friable ACM.
  - d. Bulk Sampling/Documentation of Asbestos in Schools.
  - e. Record Keeping and Writing Inspections Reports.
  - f. Field Trip.
6. Project Designer and Asbestos Project Designer Refresher:
- a. Safety System Design Specifications.
  - b. Designing Abatement Solutions.
  - c. Budgeting/Cost Estimation.
  - d. Writing Abatement Specifications.
  - e. Preparing Abatement Drawings.
  - f. Occupied Buildings.
  - g. Field Trip.

#### I. Course Approval.

1. The Department may base approval of an initial or refresher training course in any discipline in whole or in part on the provider's compliance with the requirements of Section XIX.C., the accuracy and applicability of the materials submitted pursuant to this Section, observation by a Department representative of an actual presentation of the course, or approval from the EPA, an EPA-accredited state, or a state having reciprocity with the Department.

2. The training provider shall submit all of the following information to the Department not less than 30 days prior to the initial presentation of the course within the State:

- a. Course sponsor's name, address, and telephone number;

- b. The course curriculum;
- c. Length of training in days;
- d. Description of amount and type of hands-on training;
- e. Topics covered in the course;
- f. A copy of all course materials, including student manuals, student handouts, instructor notebooks, lecture outlines, etc;
- g. A detailed statement regarding the length, format, and development of examinations, and copies of actual examinations;
- h. A description of procedures used to administer examinations and to ensure their security;
- i. Instructor names, documentation of qualifications (including resumes), and the subject areas that each instructor will teach;
- j. Description and samples of numbered certificates that will be issued to students who successfully complete the course, and a statement regarding the manner in which certificate numbers are generated; and
- k. Other applicable information requested by the Department.

3. The provider of any training course presented in the State shall allow Department representatives to attend, monitor, and evaluate the course without charge and without advance notice.

4. The provider of any training course approved by the Department shall notify the Department within ten days of any changes in course topics, materials, and instructors. The training provider shall provide notification in writing and shall submit appropriate documentation for Department approval.

5. The Department reserves the right to require additional training as appropriate, including training specific to this regulation, air sampling strategies, or roofing projects.

6. The Department shall withdraw approval of a training course if it determines that:

a. The course no longer meets the requirements of this regulation or the EPA Model Accreditation Plan.

b. Approval from the EPA, an EPA-accredited state, or a state with whom the Department has reciprocity has been withdrawn.

#### J. Periodic Audits.

1. The Department may conduct unannounced audits of any training course to ensure compliance with all requirements of this regulation.

2. All in-State training providers shall maintain the approval status of their training courses by submitting to periodic on-site audits by the Department. Such audits may be unannounced. In-State training courses that have been audited by a state having a written reciprocal agreement with the Department regarding periodic audits may be exempted from the periodic audit rule.

3. The Department shall conduct periodic audits for the purpose of verifying that:

- a. The training course complies with all requirements of this regulation;
- b. The training course content has been updated and is current with state-of-the-art methods and technology available in the asbestos abatement and management industry;
- c. The training course meets instructor qualifications and performance standards, training course administration standards, hands-on training standards, and instructor-to-student and workstation-to-student ratios as established by the Department;
- d. The training course sponsor has maintained training-related records as required in Paragraph C.9. of this Section; and
- e. Previously-approved curriculum materials and instructors are subject to the training course standards as defined by the Department.

4. All training course sponsors shall allow, at no charge, representatives from the Department to attend all or any part of any training course for the purpose of conducting periodic audits. Training course sponsors shall not restrict access to any part of a training course for which the Department is conducting an on-site audit. As part of the audit process, training course sponsors shall make records that are required by this regulation available to the Department upon request.

5. As a result of a periodic on-site audit of any training course previously approved by the Department, the Department may revoke or suspend its approval; or, for training courses that have been approved by other federal or state approval agencies, the Department may refuse to accept certificates of training if any of the following deficiencies are noted during the audit:

- a. The course is not in compliance with this regulation;
- b. The training provider misrepresents the extent of the training course's approval; or
- c. The Department finds evidence of falsification of any records required by this regulation.

6. The Department shall not recognize a certificate of training issued by any in-State training course that has had its acceptance suspended or revoked as a result of an on-site audit until a subsequent audit shows that the cause of suspension or revocation has been corrected.

7. The Department shall not recognize a certificate of training issued by any training course that has had its approval, acceptance, or certification revoked by any other state or federal approval agency until the approval has been reinstated by the revoking agency.

#### K. Training Course Fee Schedule.

1. Initial approval for each training course license - \$350.00 per day per course.
2. Annual license renewal for Department-approved training courses - \$200.00 per course.
3. Each course license is valid for an entire year, regardless of the number of times the course is taught during the year.

4. Fees shall not be refunded if a training course is denied a license per this regulation.

5. Failure to pay annual training course license renewal fees may, after a hearing in accordance with the provisions of this regulation, result in the course license being revoked.

## **SECTION XX. INDUSTRIAL MANUFACTURING AND ELECTRICAL GENERATING FACILITIES.**

### **A. Applicability.**

1. In lieu of requirements described in other sections of this regulation except as specified herein, the requirements of this Section shall apply to the owner of an industrial manufacturing or electrical generating facility that has obtained a group license for facility employees or employees of the designated long-term in-house contractor.

2. Unless otherwise specified herein, the applicable requirements of this regulation shall apply to any asbestos project involving RACM, regardless of the size of the project.

3. No person shall engage in any asbestos project or abatement involving RACM unless licensed to do so by the Department.

4. Industries that choose not to obtain a facility group license or who hire companies or individuals not covered under the facility group license shall satisfy all applicable requirements described in other sections of this regulation, except for with regard to the frequency with which building inspections are required, as outlined in Section XX, J of this regulation.

### **B. Training.**

Employees of industrial manufacturing or electrical generating facilities and of such facilities' long-term in-house contractors who perform asbestos abatement projects shall satisfy the training requirements as specified below:

1. Employees who perform OSHA-designated Class I and II work not subject to OSHA's exceptions shall receive training consistent in length and curriculum with 40 CFR Part 763, Subpart E, Appendix C, as amended, and any subsequent amendments and editions. Employees who perform OSHA-designated Class III work not subject to OSHA's exceptions shall receive training consistent in length and curriculum with 40 CFR 763.92(a)(2).

2. All training conducted for the purpose of satisfying B.1 of this Section shall be conducted by a person who meets the applicable instructor qualifications of the Training Section of this regulation.

### **C. License Application.**

1. Each person covered under a facility group license shall successfully complete a Department-approved initial or refresher training course specific to the discipline, and at the conclusion of the course, shall successfully pass an examination, when applicable, with a score of 70 percent or above.

2. Each facility seeking a group license shall submit a completed application to the Department in a format designated by the Department. The application must state the type of license for which the application is being made and must include the following information:

a. Name, mailing address, and street address of the industrial manufacturing or electrical generating facility;

b. Name, title, and telephone number of a responsible company official;

c. Name of the designated long-term in-house contractor, when applicable; and

d. Name, Social Security number, discipline, training provider or approved instructor, and, when applicable, examination date of most recent training certificate for each person to be included under the license.

e. An owner shall notify the Department quarterly of any change in facility name, contact person, mailing address, street address, telephone number, long-term in-house contractor, and/or personnel covered by the group license.

3. Acceptable documentation of training may be requested by the Department and shall include:

a. An original certificate issued by the training course provider that meets the requirements specified in this regulation; or

b. A valid, original license or accreditation issued by a state that has a reciprocal arrangement with the Department (photocopies or telephone facsimile copies shall not be accepted); or

c. A letter verifying successful completion of training that is sent directly to the Department from the approved training instructor.

4. Duration of a License.

a. A license shall automatically become invalid if an instrument of payment is returned for insufficient funds.

b. A group license shall expire one year from the process date, unless the Department suspends or revokes the license at an earlier date. No person covered by a group license shall engage in any asbestos project after one year from the examination date printed on his or her most recent training certificate regardless of the expiration date of the group license.

#### D. Continuing Education

1. After successful completion of an approved initial training course, each employee to be covered under a group license shall thereafter successfully complete a Department-approved initial or refresher training course specific to the discipline, and, at the conclusion of each course shall pass an examination with a score of 70 percent or above where applicable.

2. If more than 12 months but fewer than 24 months have elapsed since completing an initial or refresher training course, an applicant shall successfully complete either a refresher training course or an initial training course.

3. If more than 24 months have elapsed since successfully completing an initial or refresher training course, an applicant shall complete another initial training course.

#### E. Fees.

1. No application will be processed unless accompanied by the required fee.
2. Departmental receipt and deposit of fees submitted with an application shall in no way indicate approval of the application or guarantee the Department's issuance of a license.
3. Fees shall not be refunded if a license is denied.

#### F. Group License Fee Schedule.

The fee for a group license shall be as follows:

1. Up to 10 people - \$ 25.00 minimum fee
2. 11 to 20 people - \$ 2.50 per person
3. 21 to 50 people - \$ 5.00 per person
4. 51 to 90 people - \$ 7.50 per person
5. 91 persons or more - \$ 500.00 maximum fee
6. The minimum fee for a group license is \$25.00 and the maximum is \$500.00.

#### G. Project Fees.

1. The Department shall collect project license fees for all RACM being removed and for previously non-regulated ACM rendered regulated by use of destructive removal techniques such as chipping, grinding, sawing, abrading, drilling, or extensive breaking.
2. Abatement project fees for RACM are calculated at 10 cents per linear, cubic, or square foot, with a minimum fee of \$25.00 and a maximum fee of \$1,000.00.
3. The Department will not issue an abatement project license for a renovation or demolition until all requested information has been submitted and reviewed and all applicable fees have been paid.
4. Fees will not be refunded on projects for which the Department has issued an asbestos project license.
5. An abatement project license that has been issued shall automatically become invalid if an instrument of payment is returned for insufficient funds.

#### H. Action on an Application.

Within 15 calendar days after receiving an application, the Department will acknowledge receipt of the application and notify the applicant of any deficiency in the application. Within 30 calendar days after receiving a completed application, including all additional information requested, the Department will issue a license or deny issuance of the application.

#### I. Conditions and Generic Alternatives.



In granting a license, the Department may impose reasonable terms and conditions to ensure continuous compliance with the requirements of this regulation.

#### J. Asbestos Project General Information.

1. Prior to beginning a renovation or demolition operation at a facility, the owner/operator shall ensure that a building inspection is performed to identify the presence, location, and estimated quantity of ACM that may be disturbed by the work activity. The building inspection shall be performed by a person licensed as a building inspector or management planner.

2. The building inspector or management planner shall comply with the Building Inspection Section of this regulation.

3. To be acceptable, a building inspection shall have been performed no earlier than five years prior to the renovation or demolition, or, if more than five years have elapsed since the most recent inspection, the previous inspection shall be confirmed and verified by a person licensed as a building inspector.

#### K. Notification.

1. For NESHAP renovation projects, refer to the NESHAP Project Section of this regulation.

2. For demolitions, refer to the Demolition Section of this regulation.

3. For small, minor, and O&M renovation projects, either:

a. Provide the Department with written notification/application prior to any abatement and pay all applicable fees.

(1) Deliver the notification by U.S. Postal Service or commercial delivery service, facsimile transmission, by hand or by other methods deemed acceptable by the Department.

(2) Postmark or deliver the notice at least four working days for small projects before commencing asbestos stripping or removal work or any other activity begins that would break up, dislodge, or similarly disturb RACM. For minor and O&M projects, postmark or deliver the notice prior to commencing abatement activities.

(3) Update the notification when any previously-notified information changes and pay additional project fees as necessary.

(4) Notify the Department by telephone and follow up in writing as soon as possible, but not later than, the originally notified start date when a project for which notification was sent has been canceled.

(5) The Department may waive the five-calendar-day prior notice requirement on a case-by-case basis.

b. Maintain a log of all small, minor, or O&M projects performed during a quarter, report them to the Department within 30 calendar days of the end of the quarter, and pay applicable project fees. The log shall include but is not limited to: the name and address of the facility being abated, amount and type of ACM removed, date(s) of the removal, names of individuals who performed the abatement, the temporary waste storage location, and the name of the landfill used for disposal.

4. The owner/operator shall notify the Department by telephone and follow up in writing as soon as possible before, but not later than, the notified start date when a project has been canceled.

5. A licensed asbestos project designer shall prepare and implement the written design for each abatement renovation project involving the removal of greater than 3,000 square, 1,500 linear, or 656 cubic feet of RACM in a facility to be reoccupied. However, all projects shall be designed in accordance with the requirements of 40 CFR 763.90(g), as amended, and any subsequent amendments and editions, and this regulation.

6. The disposal requirements of this regulation shall be applicable to asbestos-containing and asbestos-contaminated materials for any abatement activity.

#### L. Emergency Operation Documentation.

1. For an emergency operation, the owner/operator shall submit project notification as early as possible before, but not later than, the working day following the emergency operation.

2. The facility owner shall notify the Department in writing of the date and hour that the emergency occurred; a description of the sudden, unexpected event; and an explanation of how the event caused an unsafe condition, public safety or health threat, equipment damage, or would impose an unreasonable financial burden. The owner shall submit this information with the project notification as required in this Section.

#### M. Work Practices.

1. NESHAP projects performed at an industrial manufacturing or electrical generating facility by individuals covered under the facility's group license shall satisfy the work practice requirements of 40 CFR 61.145, as amended, and any subsequent amendments and editions, and shall ensure that: wet removal methods are used; no visible emissions are released to the outside air; and all asbestos waste is sealed in leak-tight containers and disposed of at a landfill permitted to accept asbestos waste.

2. Any small or minor asbestos project or any O&M activity performed at an industrial manufacturing or electrical generating facility shall be subject to the work practice requirements of the Small Project, Minor Project, or O&M Project Sections whenever feasible. When such work practice requirements are not feasible or when alternate Federal OSHA and EPA work practice standards are used, the owner/operator shall perform work in such a way to provide assurance of RACM containment.

3. The use of glovebags must be in accordance with the requirements of OSHA 29 CFR 1926.1101.

4. The owner/operator shall ensure that contaminated water is filtered through a five micron or smaller filter and discharged to a sanitary sewer system. No contaminated or filtered water shall be allowed to leak or drain outside of the work area.

5. The Department may, on a case-by-case basis, approve alternative procedures for work practices, control of emissions from an asbestos abatement project, or air monitoring, provided the owner/operator submits a written description of the alternative procedure to the Department prior to beginning work and demonstrates to the satisfaction of the Department that compliance with the prescribed procedures will not be practical or feasible and that the proposed alternative procedures provide equivalent protection from asbestos exposure.

6. Legible copies of Departmental letters of approval for alternative work practices shall be kept at the project site and available for inspection for the duration of abatement.

N. Exemption from Wetting for Any Sized Project.

The requirements of the Exemption From Wetting Section of this regulation shall apply.

O. Disposal.

The requirements of the Disposal Section of this regulation shall apply except as follows:

1. In lieu of locking metal dumpster doors and tops, the dumpster containing asbestos waste may be kept in a secured area to which access is controlled.

2. Asbestos waste may be kept at the site until a sufficient quantity has accumulated for a full shipment. In this instance, the facility owner shall submit a copy of a completed waste shipment record or other shipping manifest to the Department within 45 working days of shipment of the waste.

P. Requirements for Training Courses and Training Instructors.

In order for initial or refresher training subject to the requirements of 40 CFR Part 763 to be acceptable as a basis for licensing pursuant to this Section, the course curriculum and instructors must meet the applicable curriculum criteria in the Training Section of this regulation and be approved by the Department.

Q. The requirements of the Reprimands, Suspensions, and Revocation Section of this regulation shall apply.

R. The requirements of the Contested Cases Section of this regulation shall apply.

S. The requirements of the Records Section of this regulation shall apply.

T. The requirements of the Other Requirements Section of this regulation shall apply.

## **SECTION XXI. REPRIMANDS, SUSPENSIONS AND REVOCATION.**

The Department may reprimand any licensee or revoke or suspend any license based upon violation of any requirement stated herein. Reasons for reprimand, suspension, or revocation may include, but are not limited to, falsification or known omission of any written submittal required as part of this regulation, submission of fraudulent information or documentation, omission or improper use of work practices, improper disposal of ACM, or spread of asbestos emissions beyond the containment area.

## **SECTION XXII. CONTESTED CASES.**

A. A Department decision involving the issuance, denial, renewal, suspension, or revocation of a permit or license may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23.

B. Any person to whom an order or civil penalty is issued may appeal it pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23.

### **SECTION XXIII. RECORDS.**

Each licensed asbestos owner/operator shall retain, for at least three years after their issuance, all records required herein unless otherwise stated. These records shall be made available to the Department for review upon request.

### **SECTION XXIV. OTHER REQUIREMENTS.**

A. The requirements of this regulation shall in no way be construed to relieve the owner/operator from compliance with other regulatory requirements or contractual agreements that may be more restrictive.

B. The Department reserves the right to assess additional fees for licensing, training course auditing, and abatement activities, should enabling legislation be enacted.

### **SECTION XXV. SEVERABILITY CLAUSE.**

The provisions of Sections I through XXV of this regulation must be construed as separate provisions. If a provision is judged to be invalid in a court of law of this State, the court's decree shall apply only to the provision and action specified and shall have no effect on any other provision unless stated in the court's decree. The invalidity does not affect other provisions or applications of the Section which may be given effect without invalid provision or application and pursuant to this requirement, the provisions of these Sections are severable.