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South Carolina Department of Health  
and Environmental Control

# **REGULATION 61-86.1 STANDARDS OF PERFORMANCE FOR ASBESTOS PROJECTS**

**Effective June 28, 2002**

**Bureau of Air Quality  
SC Department of Health and Environmental Control  
2600 Bull Street  
Columbia, SC 29201  
(803) 898-4123**

Statutory Authority  
Sections 44-1-140, 48-1-30, and 44-87-10 *et seq.*  
of the 1976 South Carolina Code of Laws, as amended.

## **DISCLAIMER**

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**SOUTH CAROLINA  
DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

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**SECTION I. DEFINITIONS.**

The following words and phrases when used in this regulation shall have the meanings ascribed to them in this Section.

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, and other devices to simulate vigorous activity in the abated area while air samples are being collected.
4. "AHERA" - Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Asbestos Containing Materials in Schools.
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 further minimizing flow-through contamination.
7. "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.
8. "Air sampler" - A person licensed by the Department to implement air-monitoring plans and analysis schemes during abatement.
9. "Amended water" - Water to which a surfactant 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 work area.
11. "Asbestos" - The asbestiform varieties of serpentinite (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 who is involved in asbestos abatement.

13. "Asbestos project" - Any activity associated with abatement including inspection, design, air monitoring, in-place management or other disturbance of regulated asbestos-containing materials (RACM). This also includes demolition of a regulated facility.

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

15. "Asbestos containing material (ACM)" - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than 1 percent as determined by using the method specified in 40 CFR Part 763 Appendix A, Subpart F, Section 1, as amended, or an accepted equivalent.

16. "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.

17. "Asbestos training course provider" - The person, sole proprietorship, public corporation, or incorporated entity that meets the qualifications to provide instruction in any of the specific work practice topics or disciplines.

18. "Asbestos training course" - A Department approved initial or refresher course that meets the specific requirements for qualification of an applicant seeking a license in any of the specific work practice topics or disciplines.

19. "Asbestos training course instructor" - A Department approved individual who meets the qualifications, as prescribed in Section XV of this regulation, for teaching non-work practice topics and/or for teaching work practice or hands-on topics in any specific initial or refresher training course for the following work practice disciplines:

- a. Workers
- b. Supervisors
- c. Management Planners
- d. Building Inspectors
- e. Project Designers
- f. Operations and Maintenance Workers

20. "ASHARA" - Asbestos School Hazard Abatement Reauthorization Act.

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 air-borne fiber levels under typical activity.

23. "Building inspection" - An activity undertaken at a facility to determine the presence and location of regulated and non-regulated asbestos-containing materials (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, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, 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, containing more than 1 percent asbestos as determined using the methods specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, or an accepted equivalent.
27. "Clean room" - An uncontaminated area or room, which is a part of the decontamination enclosure system with 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 not engaged in an asbestos project but which provides temporary workers or supervisors to the owner/operator of the project.
30. "Consultant" - A person licensed by the Department to perform duties related to an asbestos project such as a building inspector, management planner, or project designer.
31. "Contractor" - Any individual, partnership, corporation or other business concern that performs asbestos abatement but who is not a permanent employee of the facility owner.
32. "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.
33. "Critical barrier" - A leak-tight seal applied from within the work area to isolate vents, windows, doors, and any other cavity or opening to the contaminated work area.
34. "Cut" - To penetrate with a sharp-edged instrument. This includes sawing, but may not include shearing, slicing, or punching.
35. "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, which is used for the decontamination of employees, materials and equipment that are contaminated with asbestos.
36. "Demolition" - Wrecking or taking out any load-supporting structural member of a facility together

with any related handling operations, or the burning of any regulated facility.

37. "Department" - The South Carolina Department of Health and Environmental Control.

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

39. "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.

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

41. "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.

42. "EPA" - United States Environmental Protection Agency.

43. "Equipment room" - A contaminated area or room, which is part of the decontamination enclosure system with provisions for the storage of contaminated clothing and equipment.

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, may be 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 which contains more than 1 percent asbestos as determined 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 "Appendix E to Subpart E" - 60 FR 31917, June 19, 1995)**

49. "Glove bag" - A sealed compartment with attached inner gloves used for the handling of asbestos-containing materials. Information on glove-bag 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.

50. "Grind" - To reduce to powder or small fragments. Grinding includes mechanical chipping or drilling.

51. "HEPA filter" - A high efficiency particulate air filter which will capture particles with an aerodynamic diameter of 0.3 micrometers with a minimum efficiency of 99.97 percent.

52. "HVAC" - Heating, ventilation and air conditioning.

53. "Industrial manufacturing facility" - Any establishment whose Standard Industrial Classification code falls within Major Groups 20 through 39 excluding any office space which is part of such establishment.

54. "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.

55. "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).

56. "Issue date" - The date printed on the Departmental Asbestos Abatement License, which indicates the date of successful completion of an examination administered upon completion of an asbestos training course.

57. "Leak-tight" - Dust, solids or liquids cannot escape or spill out.

58. "License" - A document issued by the Department which allows an asbestos abatement contractor, building inspector, project designer, management planner, air sampler, supervisor, worker or other consultant to engage in asbestos projects.

59. "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.

60. "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.

61. "Minor project" - A project where 25 or less square or linear feet of regulated asbestos-containing material (RACM) is removed, or where 10 or less cubic feet of RACM off a facility component is cleaned up.

62. "Movable object" - A structure within the work area that can be easily removed, (e.g. chair, desk, etc.).

63. "Negative pressure differential equipment" - A portable exhaust system equipped with a HEPA filter.

64. "NESHAP" - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61 Subpart M,

February 3, 1994, as amended, and any subsequent amendments or editions.

65. “NESHAP project” - An asbestos project which involves at least 160 square feet or 260 linear feet of 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 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.

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

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

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

69. “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.

70. “Owner’s representative” - A licensed consultant 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.

71. “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.

72. “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 nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

73. “Process date” - The date a license is printed by the Department.

74. “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.

75. “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.

76. “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, 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.

77. "Removal" - Taking out RACM or facility components that contain or are covered with RACM from any facility.
78. "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.
79. "Repair" - Procedure used to patch, cover or otherwise restore damaged asbestos-containing material other than enclosure or encapsulation.
80. "Resilient floor covering" - Asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than 1 percent asbestos as determined using polarized light microscopy according to the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy, or an accepted equivalent.
81. "Roofing materials" - For the purposes of this regulation, roofing materials shall include but are not limited to: Bituminous built-up roofing systems, roofing membranes, asphalt shingles, cement shingles, roofing cements, mastics, coatings, panels, light weight roofing concrete, and flashing.
82. "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.
83. "Small project" - A project where more than 25 but less than 160 square feet or more than 25 but less than 260 linear feet of RACM is abated, or where more than 10 but less than 35 cubic feet of RACM off a facility component is cleaned up.
84. "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.
85. "Strip" - To remove RACM from any part of a facility or facility component.
86. "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.
87. "Structures per square millimeter" - Reporting measure for Transmission Electron Microscopy (TEM) Analysis. TEM clearance requires less than 70 structures per square millimeter (70s/mm<sup>2</sup>).
88. "Surfactant" - A chemical wetting agent added to water to improve penetration, such as a non-sudsing detergent.
89. "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.
90. "Temporary Storage License" - A license issued by the Department which authorizes storage of asbestos waste from small and minor projects at a secure location acceptable to the Department.
91. "Visible emissions" - Any emissions which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material or a regulated work area.

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

93. "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.

94. "Wet cleaning" - The process of eliminating asbestos contamination from facility surfaces and objects by using cloths, mops or other cleaning tools which have been dampened with water.

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

96. "Worker" - A person licensed by the Department to perform asbestos abatement under the direct guidance of an accredited and licensed supervisor. However, facility operation and maintenance workers are not required to work under a licensed supervisor.

97. "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, consultant, air sampler, commercial labor provider, supervisor, or worker involved in the inspection, in-place management, design, removal, encapsulation, enclosure, renovation, repair, demolition, or any other disturbance of RACM; and to 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. Asbestos projects occurring at private residences of four units or less are exempt from the requirements of this regulation unless performed by a person or persons holding an asbestos abatement license.

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

## **SECTION III. LICENSING REQUIREMENTS.**

A. Applicability.

1. No person or contractor shall engage in any asbestos project or abatement involving regulated asbestos-containing material 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.

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. Licenses for asbestos projects such as roofing and interior or exterior abatement activities will be restricted based on the training qualifications of the applicant.

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

6. Asbestos training course providers must have a separate license for each initial or refresher training course taught in any specific work practice topic or discipline. Each course license is valid for an entire year, regardless of the number of times the course is taught during the year.

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

8. Each asbestos training course approved and licensed pursuant to this regulation for the first time will be audited and assessed the initial audit fee prescribed in Section III.D.7 of this regulation. Each training course for which renewal of a license is sought will be assessed the annual license renewal fee prescribed in Section III.D.7.

9. An asbestos training course must have a current and valid license on the date that it was 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. License Application.

1. Each applicant seeking a license in any discipline except that of Contractor, shall successfully complete a Department-approved initial training course specific to the discipline and, at the conclusion of the course, shall pass an examination with a score of 70 percent or above. Applicants seeking a license for an asbestos training course in any discipline must submit documentation of qualifications and any other information necessary to meet the criteria for Department approval in accordance with the requirements of Section XV of this regulation.

2. Each applicant seeking a 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 all of the following information:

##### a. Contractor's License:

(1) Company name, mailing address, street address, telephone number, and name and title of a responsible company official.

(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.

##### b. Supervisor's License:

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

(2) Documentation of successful completion of asbestos abatement supervisors' training courses

as referenced in Section XV or for roofers, Section XI.

c. Worker's License:

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

(2) Documentation of successful completion of asbestos abatement workers' training courses as provided in Section XV or for roofers, Section XI.

d. Facility Operations and Maintenance (O&M) Worker's License (This license is facility-affiliated only):

(1) Applicant's name, social security number, mailing address, telephone number, and company affiliation; and

(2) Documentation of successful completion of asbestos abatement workers' training courses as provided in Section XV.

e. Air Sampler's License:

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

(2) Documentation of successful completion of asbestos abatement supervisors' training courses as provided in Section XV, or project monitor training whose course curriculum satisfies the provisions of 40 CFR 763, Appendix C to Subpart E, Asbestos Model Accreditation Plan (MAP), February 3, 1994, as amended and any subsequent amendments or editions at the time of licensing; and

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

f. Project Designer's License:

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

(2) Documentation of successful completion of asbestos abatement project designers' training courses as provided in Section XV.

g. Building Inspector's License:

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

(2) Documentation of successful completion of asbestos building inspectors' training courses as provided in Section XV.

h. Management Planner's License:

(1) Applicant's name, social security number, mailing address, telephone number, and when

applicable, company affiliation; and

(2) Documentation of successful completion of asbestos building inspectors' training courses as provided in Section XV; and

(3) Documentation of successful completion of asbestos management planners' training courses as provided in Section XV.

i. Asbestos Training Course Licenses:

(1) An asbestos training course provider who intends to present training courses within the State shall submit an application for approval, for each initial or refresher training course taught in any specific work practice topic or discipline, that contains all information necessary to verify qualifications as required in Section XV of this regulation.

(2) Each initial or refresher training course taught in any specific work practice topic or discipline shall be licensed individually upon Department approval in accordance with the requirements of Section XV of this regulation.

(3) When an asbestos training course instructor conducts mandatory asbestos training courses in more than one discipline, documentation of course instructor qualifications for each discipline must be submitted as required in Section XV of this regulation.

3. Acceptable documentation of training shall be:

a. An original certificate which is issued by the training course provider and which meets the requirements specified in Section XV.B.7.b. of this regulation; or

b. 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

c. A letter verifying successful completion of training, which is sent directly to the Department from the training provider.

4. A licensee must notify the Department within thirty calendar days of any change in name, mailing address, or telephone number.

C. 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.

D. 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 III. 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. Consultant\* - \$ 100.00

c. Air Sampler - \$ 100.00

d. Supervisor (Any type) - \$ 50.00

e. Worker (Any type) - \$ 10.00

\*Consultant includes but is not limited to the following disciplines: building inspector, management planner, and project designer.

6. Facility Operation & Maintenance (O & M) Group Worker License Fee Schedule:

a. The minimum fee for an O & M Group Worker 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 maximum fee

7. Asbestos Training Course License Fees.

a. Fee Schedule

(1) Initial audit for each training course license - \$350.00 per day per course.

(2) Annual license renewal for Department approved training courses - \$200.00 per course.

b. Each course license is valid for an entire year, regardless of the number of times the course is taught during the year.

c. Fees shall not be refunded if a training course is denied a license per Section III.F. of this regulation.

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

#### 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.

#### 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 the:

a. Department in South Carolina Regulation 61-86.1.

b. Chapter 87 of the 1976 South Carolina Code of Laws, as amended.

c. U. S. Environmental Protection Agency in:

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

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

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 required by this regulation 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 send the denial of an application by certified mail.

6. 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 the application shall not be considered for 180 days and only then 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.

7. The applicant may request a hearing pursuant to Section XVIII 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 process 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 IV. ASBESTOS PROJECTS GENERAL INFORMATION.**

A. Applicability.

1. The requirements of this Section shall apply to the owner/operator, building inspector, management planner, project designer, air sampler, consultant, supervisor, or worker of any asbestos project involving the disturbance of regulated asbestos-containing or asbestos-contaminated materials.

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

B. General Requirements.

1. Prior to beginning a renovation or demolition operation at a regulated facility, the owner/operator shall ensure that a building inspection is performed to identify the presence, location and estimated quantity of ACM which may be disturbed by the work activity. The owner/operator shall ensure that the building inspection is performed by a person licensed as a building inspector or management planner.

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

3. The building inspector or management planner shall:

a. Comply with procedures specified in 40 CFR 763.86 as amended, and any subsequent amendments and editions, in determining sampling locations and the number of representative samples to be collected. Samples shall be collected from friable and non-friable suspect ACM on affected interior and/or exterior facility components.

b. Prepare a detailed report based on findings of the inspection to include the information required in 40 CFR 763.85 (a)(4)(vi)(A)-(E) as amended, and any subsequent amendments and editions. Also include a description of non-suspect materials excluding: glass, metals, kiln brick, cement, fiberglass, concrete, pressed wood, cinder block, and rubber.

c. Provide an assessment of all materials suspected to contain asbestos, including an evaluation of the materials' current condition, estimated quantities, and potential for disturbance.

d. Include the name, license number, date of inspection, and signature of the licensed building inspector or management planner who performed the inspection and completed the report.

e. Ensure that bulk samples are analyzed in accordance with requirements specified in 40 CFR 763.87 as amended and any subsequent amendments and editions, and this regulation. Any laboratory that retains proficiency as demonstrated by successful participation in a nationally recognized testing program may be acceptable.

4. A person licensed as an 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 must be designed in accordance with 40 CFR 763.90(g) (Federal Register, Volume 59, Number 23, Thursday, February 3, 1994) as amended and any subsequent amendments and editions, and this regulation.

5. 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.

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

7. 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.

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

9. 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 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, valid 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 Section XV and Section III, and for roofing Section XI of this regulation.

b. At all times while abatement (including preparation, removal and cleanup) of regulated asbestos-containing material (RACM) is being performed at NESHAP and Small projects, at least one licensed supervisor remains inside each contained work area supervising the work. During abatement at regulated roofing projects referenced in Section XI.C.1.a. & b., 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 so that Department inspectors or other authorized visitors can communicate with persons within the immediate contained work area in order to gain access.

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

e. Legible copies of Departmental 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 Section XV, or for roofers Section XI, and is licensed in accordance with Section III of this regulation.

### D. Alternative Work Practices.

1. The Department may, on a case-by-case basis, approve 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 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 Section E.1. above.

#### F. Performance Standards for Air Samplers.

1. Area air sampling shall be performed by a licensed air sampler.

2. Area air sampling data collected by a licensed air sampler under contract with or employed by the asbestos contractor performing the abatement shall 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 if Phase Contrast Microscopy (PCM) is used, or with Electron Microscope Measurement of Airborne Asbestos Concentrations, EPA Report 600/2-77-178 (1978) and EPA Contract No. 68-02-3266 (1984), if Transmission Electron Microscopy (TEM) is used.

4. Where clearance air monitoring is required by this regulation, the clearance standard for any abatement project shall be: by Phase Contrast Microscopy less than or equal to 0.01 f/cc; by Transmission Electron Microscopy less than or equal to 70 s/mm<sup>2</sup>, or a value of Z less than or equal to 1.65 for a Z-test carried out as described in 40 CFR. 763 Subpart E Appendix A Section IV.C. as amended, and any subsequent amendments and editions.

5. 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.

6. Alternative sampling schemes for background or daily area air sampling are allowed without prior Departmental approval. However, the air sampler shall submit the alternative scheme in writing to the Department upon request.

7. The air sampler shall:

a. Ensure that all air sampling pumps in use are accurately calibrated and operating properly, and that the filtered sampling cassettes are securely attached to the pumps for the duration of sampling.

b. 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.

c. Ensure that adequate sampling equipment and devices are available for use at the project site.

d. Collect area air samples for a minimum of two and one half hours with a minimum flow rate of three liters per minute for each four-hour work period during removal and clean-up activities at NESHAP projects.

#### G. Exemption from Wetting for Any Size Project.

1. In renovation operations, wetting is not required if:

a. 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

b. The owner/operator uses the following emission control methods:

(1) 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 be designed and operated in accordance with the requirements in EPA Regulation 40 CFR 61.152 as amended, and any subsequent amendments and editions.

(2) A glove-bag system designed and operated in accordance with the requirements of OSHA regulation 29 CFR 1926.1101 as amended, and any subsequent amendments and editions.

(3) Leak-tight wrapping to contain all RACM prior to dismantlement.

c. In renovation operations where wetting would result in equipment damage or a safety hazard, and the methods allowed in this Section cannot be used, another method may be used after obtaining written approval from the Department based upon a determination that it is equivalent to wetting in controlling emissions. 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.

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

a. 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 2 years from the date the project is completed, and shall provide a legible copy of the data to the Department upon request.

b. 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.

c. 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.

#### H. Disposal.

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

a. All containers (bags, drums, wrapped components) are 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. Waste generator labels are:

(1) Written legibly and in indelible ink.

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

c. Asbestos waste is disposed of at a landfill approved or permitted to accept asbestos waste.

d. Asbestos waste is not stored at a location other than the facility site without prior written approval from the Department.

e. Stored asbestos waste is maintained in a secured locked location where access is controlled.

f. Asbestos waste is transported and disposed of in a manner that will not permit the release of asbestos fibers into the air.

g. Asbestos waste is transported in accordance with the following procedures:

(1) The cargo area of the transport vehicle shall be free of debris and lined with 6-mil polyethylene sheeting. Floor sheeting shall be installed first and shall extend up the side walls at least 12 inches and shall be taped securely into place. Wall sheeting shall overlap by at least six inches and be taped into place. Ceiling sheeting shall extend down the side 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 H.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 and 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 which 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 and tops. The doors and tops shall be closed and locked except during loading or unloading 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 shall be 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 reinspecting 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 shall be submitted to the Department by the asbestos contractor within 45 days of completion of abatement.

h. A waste shipment record shall be used and shall include the 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 persons 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 which are used to store and/or transport asbestos waste. Rental vehicles do not include leased vehicles.

#### I. Project Fees.

1. The Department shall collect project license fees based on all regulated asbestos-containing materials being removed, and for previously non-regulated asbestos-containing materials 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 or square foot, with a minimum fee of \$25.00 and a maximum fee of \$1000.00. For RACM off a facility component such that the area or length cannot be measured prior to abatement, a minimum fee of \$25.00 will be assessed.

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, which has been issued, shall automatically become invalid if an instrument of payment is returned for insufficient funds.

#### **SECTION V. NESHAP PROJECTS.**

A. Applicability. The notification, work practice, air sampling, clean-up and disposal requirements of this Section shall apply to each owner/operator of an indoor renovation abatement 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 facility components where the area or length could not be measured prior to abatement.

#### B. Notification.

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

a. Provide the Department with written notification at least 10 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 acceptable to the Department.

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

c. Provide the Department with a legible copy of the building inspection report prior to each demolition operation, and upon request for renovations.

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

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 of the new start date at least 10 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 no later than, the original start date, when the renovation will begin after the date contained in the initial notification 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 no 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 acceptable to the Department.

c. Provide the Department with an updated written notice of the new completion date as soon as possible before, but no 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 acceptable to the Department.

d. Provide the Department with written notification 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 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 acceptable to the Department.

4. The written notification shall include:

a. Indication whether the notification 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 asbestos-containing materials (regulated and nonregulated), date of inspection, and name, address, telephone number, and building inspector's license number of the individual who performed the inspection.

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; also, an estimate of the approximate amount of Category I nonfriable ACM in the affected part of the facility that will not be removed prior to demolition.

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.

n. Printed name and signature of the asbestos owner/operator submitting the notification, and date signed.

5. A complete notification 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. Air Sampling and Analysis Procedures.

#### 1. Background Monitoring.

a. The air sampler shall collect a sufficient number of air samples as determined by the air sampler, building owner, or his representative prior to the start of abatement activities in order to obtain an index of background airborne fiber concentrations.

b. Samples shall be taken both inside and outside the work area within the building to establish existing ambient air levels under normal activity conditions.

c. The air sampler shall document any variations and indicate the reasons for doing so, and shall provide the information to the Department upon request.

#### 2. Daily Monitoring.

a. Once abatement activities begin the air sampler shall conduct representative daily area sampling in the following areas:

(1) In the equipment room of the decontamination enclosure systems.

(2) At the entrance to the clean room of each decontamination enclosure system.

(3) Outside the work area in uncontaminated areas of the facility.

(4) 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.

b. The air sampler shall document any variations and indicate the reasons for doing so, and shall provide the information to the Department upon request.

### 3. Clearance Monitoring.

a. A licensed air sampler shall conduct clearance air monitoring at the completion of each NESHAP project.

b. 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.

c. 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.

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

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

### D. 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 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. Seal all intake and exhaust openings and any seams 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 one sheet 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 all non-movable objects 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 that it is attached securely in place and properly maintained at all times.

(9) Prevent contamination of carpet with asbestos-containing materials, 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 up the walls at least 12 inches 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 beyond wall/floor joint at least six inches and be taped into place. Ceiling sheeting shall extend down the wall at least 12 inches 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 which 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; an air lock; 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 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 barrier construction is completed through the time acceptable final clearance air monitoring results are obtained.

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

a. Prior to removal, all regulated asbestos-containing material (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 40 CFR 61.150 as amended, and any subsequent amendments and editions, and with this regulation.

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

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

c. At no time shall an owner/operator allow regulated asbestos-containing material 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) RACM 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 RACM.

(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. Asbestos-containing material 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 asbestos-containing materials. The encapsulant must be allowed to thoroughly dry prior to additional cleaning or final air clearance.

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

(4) All polyethylene sheeting, except for critical barriers and the decontamination enclosure system, is removed.

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

(6) Areas exceeding clearance standards are recleaned by the contractor using wet methods and HEPA-vacuumping. Recleaning, 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.

(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 Section IV.H. shall apply.

## **SECTION VI. SMALL PROJECT.**

A. Applicability. The notification, 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 less than 260 linear feet on pipes, or more than 25 but less than 160 square feet on other facility components, or more than 10 but less than 35 cubic feet of RACM off facility components such that area or length could not be measured prior to abatement.

B. Notification. 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 by U.S. Postal Service or commercial delivery service, facsimile transmission, by hand or by other methods acceptable to the Department.

2. Postmark or deliver the notice at least five calendar days before asbestos stripping or removal work or any other activity begins that would break up, dislodge or similarly disturb regulated asbestos-containing material.

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 no 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.

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

1. The facility owner shall ensure that clearance air monitoring is performed.

2. The air sampler shall:

a. 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.

b. Follow the procedures specified in "Measuring Airborne Asbestos Following An Abatement Action," EPA Report 600/4-85-049 (1985), or an equivalent method acceptable to the Department, when conducting clearance air monitoring.

c. 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.

d. Report sampling procedures and clearance air monitoring results in writing to the Department upon request.

e. Conduct clearance air monitoring only after the contractor has completed wet cleaning, and the area has completely dried and visually inspected.

f. Conduct clearance air monitoring only after all interior wall, ceiling, and floor polyethylene sheeting has been removed. Critical barriers and established decontamination enclosure systems shall remain in place until the abated area has received final clearance.

g. Collect clearance air samples in areas representative of the occupants' breathing zone.

#### 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 asbestos-containing materials, or dispose of the carpet as asbestos-contaminated waste.

c. Thoroughly wet all regulated asbestos-containing materials prior to removal and keep them 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 asbestos-containing material 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.

h. Porous surfaces, which have been stripped or cleaned of RACM, are encapsulated to secure any residual fibers that may be present. The encapsulant must be chosen to be compatible with subsequent coverings.

## 2. Disposal.

a. The disposal requirements of Section IV.H. shall apply.

b. Contractors who wish to temporarily store regulated waste at any location other than the project site shall obtain written authorization from the Department prior to transporting the waste from the project site. To obtain written authorization from the Department, the contractor shall submit a written request describing the exact location where the waste will be stored, how it will be packaged, amount expected to be generated during the quarter, and how the accumulating waste will be secured until the end of the quarter.

c. Each contractor approved to store asbestos waste shall maintain an asbestos waste log at the storage site and shall make it available for inspection upon request by Department representatives. The log shall include but is not limited to: the name and address of the facility being abated, amount and type of asbestos-containing material 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.

## **SECTION VII. 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 less than 25 linear feet on pipes, or is equal to or less than 25 square feet on other facility components, or is equal to or less 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. In a facility being abated subject to this Section:

1. The owner/operator shall provide the Department with written notification 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 acceptable to 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 no later

than the original start date when a project for which notification was made has been canceled; or

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 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 asbestos-containing material 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. Air monitoring is not required for minor projects.

D. Work Practice and Clean-up Requirements.

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

- a. Construct critical barriers to contain asbestos fibers released within the work area.
- b. Wet all regulated asbestos-containing materials prior to removal and keep them wet until disposal.
- 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 asbestos-containing material 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 leak-tight containers. No visible residue shall appear on the outside surface of the container.
- g. Porous surfaces, which have been stripped or cleaned of RACM, are encapsulated to secure any residual fibers that may be present. The encapsulant must be chosen to 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 which is secured and locked.
- 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.

- a. The disposal requirements of Section IV.H. shall apply.
- b. Contractors who wish to temporarily store regulated waste at any location other than the project site shall obtain written authorization from the Department prior to transporting the waste from the project site. To obtain written authorization from the Department, the contractor shall submit a written request

describing the exact location where the waste will be stored, how it will be packaged, amount expected to be generated during the quarter, and how the accumulating waste will be secured until the end of the quarter.

c. Each contractor approved to store asbestos waste shall maintain an asbestos waste log at the storage site and shall make it available for inspection upon request by Department representatives. The log shall include but is not limited to: the name and address of the facility being abated, amount and type of asbestos-containing material 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.

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

A. Applicability. The notification, work practice, clean-up, and disposal requirements of this Section shall apply to the owner/operator of an operation and maintenance 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. In a facility being abated subject to this Section:

1. The owner/operator shall provide the Department with written notification 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 acceptable to 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 no later than the original start date when a project for which notification was made has been canceled; or

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 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 asbestos-containing material 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. 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 regulated asbestos-containing materials prior to removal and keep them wet until disposal.

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 asbestos-containing material from within the work area is not permitted outside of the work area except in sealed leak-tight containers.

f. Containerize waste in appropriately labeled impermeable containers (6-mil polyethylene sheeting, bags and/or fiber or metal drums), and store in an area which 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 Operation and Maintenance 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 a worker or supervisor in accordance with the requirements of this regulation.

b. Ensure that the glovebag is constructed and utilized in accordance with requirements of 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 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.

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

#### D. Disposal.

1. The disposal requirements of Section IV.H. shall apply.

2. Contractors who wish to temporarily store regulated waste at any location other than the project site shall obtain written authorization from the Department prior to transporting the waste from the project site. To obtain written authorization from the Department, the contractor shall submit a written request describing the exact location where the waste will be stored, how it will be packaged, amount expected to be generated during the quarter, and how the accumulating waste will be secured until the end of the quarter.

3. Each contractor approved to store asbestos waste shall maintain an asbestos waste log at the storage site and shall make it available for inspection upon request by Department representatives. The log shall include but is not limited to: the name and address of the facility being abated, amount and type of

asbestos-containing material 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.

## **SECTION IX. GLOVEBAG TECHNIQUE.**

A. Applicability. The requirements of this Section shall apply to the owner/operator of any NESHAP, Small, Minor, or Operation and Maintenance project when glovebag operations are implemented.

B. Preparation for Glovebag Operations.

1. The owner/operator shall ensure that:

a. The glovebag is constructed and utilized in accordance with the requirements of OSHA 29 CFR 1926.1101 as amended, and any subsequent amendments and editions.

b. The work area is isolated to prevent access by unprotected persons.

c. 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.

d. 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.

C. Air Sampling and Analysis Procedures.

1. Background and daily area monitoring for NESHAP projects shall be performed per Section V.C. Personnel air sampling in the worker's breathing zone may be used to satisfy the requirement for daily area monitoring.

2. Clearance air monitoring shall be required for NESHAP and small asbestos projects.

a. Except for projects subject to 40 CFR Part 763 (AHERA) as amended and any subsequent amendments or editions, non-aggressive clearance air monitoring shall be acceptable following glovebag use for NESHAP and small projects unless the owner/operator fails to comply with paragraph D.2. of this section.

b. If the owner/operator fails to comply with paragraph D.2. of this section, or if personnel fiber counts exceed 0.01 fibers per cubic centimeter, aggressive clearance air monitoring shall be performed per Section V.C.3. for NESHAP projects, and Section VI.C.2.b. for small projects.

D. Glovebag Work Practices.

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

2. Use of glovebag shall be terminated and cleanup procedures per Section IX.D.3.b. shall be implemented if the owner/operator:

a. fails to keep RACM in the glovebag.

- b. fails to keep RACM adequately wet.
- c. disturbs or dislodges RACM outside of the glovebag.
- d. experiences glovebag failure.

3. Glovebag Clean-up. Following removal the owner/operator shall ensure that:

a. All polyethylene sheeting, tape, glovebags and other equipment are removed and the area inspected for visible residue.

b. 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.

c. Porous surfaces, which have been stripped or cleaned of RACM, are encapsulated to secure any residual fibers that may be present. The encapsulant must be chosen to be compatible with subsequent coverings.

4. Disposal. The disposal requirements of Section IV.H. shall apply.

**SECTION X. OUTDOOR REMOVALS.**

A. Applicability. The notification, work practice, clean-up, and disposal requirements of this Section shall apply to each owner/operator of any regulated Operation and Maintenance or Minor, Small or NESHAP outdoor renovation.

B. Notification.

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 at least 10 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 acceptable to the Department.

(2) Update the notification and pay appropriate fees as necessary, when any previously notified information changes, including but not limited to when the amount of asbestos affected changes, or when the project start or completion date changes, or when 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 10 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.

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 no 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 no 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 acceptable to the Department.

d. The written notification 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 asbestos-containing materials (regulated and nonregulated), date of inspection, and name, address, telephone number, and building inspector's license number of the individual who performed the inspection.

(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, surface area in square feet on other facility components, or volume in cubic feet if already off facility components; also, an estimate of the approximate amount of Category I nonfriable ACM in the affected part of the facility that will not be removed prior to demolition.

(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.

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

e. A complete notification 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 shall be by U.S. Postal Service, commercial delivery service, by hand, facsimile transmission, or by other methods acceptable to 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 regulated asbestos-containing material.

c. Update the notification 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 Operation and Maintenance Projects. In a facility being abated subject to this Section:

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

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

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

(3) Notify the Department by telephone and follow up in writing as soon as possible but no 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 asbestos-containing material 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. No background or daily area air monitoring is required for Outdoor Projects.

#### 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, which 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 must be chosen to be compatible with subsequent coverings.

#### E. Disposal.

1. The disposal requirements of Section IV.H. shall apply to outdoor projects.

2. Contractors who wish to temporarily store regulated waste at any location other than the project site shall obtain written authorization from the Department prior to transporting the waste from the project site. To obtain written authorization from the Department, the contractor shall submit a written request describing the exact location where the waste will be stored, how it will be packaged, amount expected to be generated during the quarter, and how the accumulating waste will be secured until the end of the quarter.

3. Each contractor approved to store asbestos waste shall maintain an asbestos waste log at the storage site and shall make it available for inspection upon request by Department representatives. The log shall include but is not limited to: the name and address of the facility being abated, amount and type of asbestos-containing material removed, date(s) of removal, names of individuals who performed the

abatement (building owner or contractor), exact location for temporary storage of asbestos wastes, and the name of the landfill used for disposal.

## **SECTION XI. ROOFING PROJECTS.**

A. Applicability. The owner/operator of a roofing project, at a regulated facility, involving the removal of asbestos-containing roofing materials shall comply with the requirements of this section. Requirements described in other sections of this regulation shall not apply to roofing projects unless specifically referenced in this section.

1. No person or contractor shall engage in the abatement of regulated asbestos-containing roofing material unless trained to do so in accordance with a curriculum specified in Section XI.I., Requirements for roofing Training Courses.

2. All of Section I., Definitions and Section III., Licensing Requirements shall apply.

### **B. General Information**

1. All of Section IV. General Requirements with the exception of air sampling shall be required.

2. A licensed consultant/roofing building inspector may perform duties of a building inspector as required under Section IV.B.1. thru 3.

### **C. Notification.**

1. Notification requirements of Section X.B.1, shall apply for projects involving at least:

a. 5580 square feet of asbestos-containing bituminous roofing material, where a rotating blade roof cutter or similar equipment is used in the removal process.

b. 160 square feet or 260 linear feet of asbestos cement shingle or other Category II roofing materials which are in poor condition or where the removal method will result in the material being crumbled, pulverized or reduced to a powder.

2. Provide the Department with prior notification for the removal of regulated asbestos-containing roofing materials below the amounts defined in paragraph C.1.a. and b. of this section.

3. Provide the Department with a written request for disposal prior to transporting non-friable waste from the facility site.

4. Project fees in Section IV.I. shall apply.

### **D. Air Sampling and Analysis Procedures. No area air monitoring is required for roofing projects.**

### **E. Work Practice Requirements.**

1. The work practice and clean-up requirements of Section X.D. shall apply for all regulated asbestos-containing roofing material.

2. Work practice requirements of Section XIV.C shall apply to all non-friable asbestos-containing roofing material.

## F. Disposal.

1. The disposal requirements of Section IV.H. shall apply for all regulated asbestos-containing roofing waste material generated during roofing projects. However, in lieu of requirement IV.H.(7), metal dumpsters or containers in which RACM is temporarily stored at the abatement site shall be lined with 6-mil polyethylene sheeting to prevent contamination. The dumpster or container shall have impermeable covering over the waste to prevent wind dispersion of asbestos fibers, vandalism or other disturbance of asbestos waste. This covering shall be in place and securely attached to the dumpster or containers except during loading and unloading of asbestos waste.

2. The disposal requirements of Section XIV.D. shall apply for all non-friable asbestos-containing roofing waste material generated during roofing projects.

## G. Licensing.

1. Persons applying for a roofing license shall comply with all applicable requirements of Section III for workers and supervisors.

2. Persons applying for roofing contractor/supervisor or worker licenses shall successfully complete the accreditation curriculum specified in paragraph I. of this Section.

## H. Training Course Instructor Qualifications.

1. Any person seeking approval as an instructor for courses covered by this Section shall meet the applicable requirements as specified herein.

2. Instructors who will teach segments of training courses covered by this Section other than work practice topics, hands-on exercises or field trips shall meet the following requirements:

a. Be a trained professional actively working in the field of expertise in which training is conducted; and

b. Have a minimum of a high school diploma or equivalent.

3. Instructors who teach work practice and hands-on topics in Department-approved roofing worker or roofing contractor/supervisor initial and refresher courses shall meet all of the following requirements:

a. Successfully complete either an approved initial asbestos supervisor or asbestos roofing supervisor's course, and subsequent annual refresher courses;

b. Either document: at least three months work experience as an roofing supervisor or foreman, or meet the requirements for an instructor per Section XV.E.1. and 2.

c. Successfully complete an initial or refresher building inspector course.

## I. Requirements for Asbestos Roofing Training Courses.

1. Applicants seeking a license as a roofing worker or contractor/supervisor are required to successfully complete an initial or refresher roofing training course approved by the Department. Initial and subsequent refresher training courses for roofing workers and contractor/supervisors shall meet

requirements of this Section.

a. An initial training course for roofing workers shall be one day in length. Actual instruction time shall be at least six and one half hours and shall cover the following topics:

(1) Physical characteristics of asbestos, including the identification of asbestos, the aerodynamic characteristics of asbestos fibers, and the typical uses of asbestos in roofing materials;

(2) Health effects related to exposure, including the nature of asbestos related diseases, the routes of exposure, the dose-response relationship, the lack of a safe exposure level, the latency period, cigarette smoking and asbestos exposure, medical surveillance programs and information on smoking cessation programs;

(3) State-of-the-art work practices, including proper work techniques to minimize fiber release, removal procedures for cement products versus built up roof products, discussion of prohibited work practices, wetting, hand tools, power tools, HEPA vacuuming tools, waste disposal procedures, and controlling access to work areas;

(4) Personal protection equipment, including the classes and characteristics of respirator types, limitations, proper selection, inspection, donning, use and storage procedures for respirators, fit testing, components of a proper respiratory protection program, selection and use and storage of non-disposable clothing, hard hats, safety glasses, and non-slip shoes;

(5) Personal hygiene including entry and exit procedure for the work area, avoidance of eating, drinking, smoking, and chewing (gum or tobacco) in the work area, potential exposures, such as family exposure;

(6) Safety practices and hazard prevention during removal of roofing materials and emergency procedures, including hazards posed by wet working conditions, electrical hazards, slips, trips, and falls, and scaffold and ladder hazards; and

(7) Review of state, and federal regulations, including but not limited to, an overview of the asbestos regulations under the National Emission Standards for Hazardous Air Pollutants 40 CFR Part 61 Subpart M, as amended, and any subsequent amendments and editions, Occupational Safety and Health Act 29 CFR 1926.1101 as amended, and any subsequent amendments and editions, and this regulation.

b. Initial training courses for roofing contractor/supervisors shall be at least two (2) days in length and cover the topics specified in I.1.a. of this Section. Actual instruction time shall be at least six and one-half hours each day. The following additional topics shall be covered in roofing supervisor courses:

(1) Discussion of the competent person duties required by the Occupational Safety and Health Act's Asbestos Construction Standard, 29 CFR 1926.1101 as amended, and any subsequent amendments and editions.

(2) Pre-work activities and considerations, including the determination of asbestos containing roofing products, bulk sampling procedures, analytical methods, the inspection report, air monitoring procedures;

(3) Assessment of the work area, including isolating the work area, considerations if the work area is adjacent to an occupied area, and items requiring special protection;

(4) Site consideration and preparations, including the regulated areas, barricade set-up, warning signs; and

(5) Supervisory techniques, worker training, cleanliness of the job site, record keeping and documentation requirements.

(6) The state-of-the-art work practice topics shall include a segment of hands-on activities, which allows the students an opportunity to use and handle equipment found on asbestos roofing projects. The hands on activities shall be a minimum of 2 hours for roofing worker course and 4 hours for the roofing supervisor course.

c. The refresher training course for roofing workers shall be at least one-half day in length. The refresher roofing supervisor course shall be at least one day in length. These courses shall review and discuss changes in the Federal and State regulations, developments in the state-of-the-art procedures, and key aspects of the initial courses as provided in I.1.a. and b. of this Section.

J. The requirements of Section XV for certificates, notification and reporting, record keeping, testing, foreign language instruction, effectiveness of training, course approval and periodic audits shall apply to roofing courses and course providers trainers.

## **SECTION XII. ENCAPSULATION AND ENCLOSURE.**

### **A. Applicability.**

1. The notification, 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 subject to the requirements of this regulation.

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

### **B. Notification.**

1. In a facility with regulated asbestos being encapsulated the owner/operator shall:

a. Provide the Department with written notification at least 10 working days prior to beginning any encapsulation activities 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. The Department may waive this requirement on a case-by-case basis, although the owner/operator shall provide all required information prior to commencing 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 shall be by U. S. Postal Service, commercial delivery service or facsimile transmission, by hand, or by other methods acceptable to the Department.

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

1. Background Monitoring.

a. Background ambient air sampling shall be required only when the conditions of B.1.a. above exist.

b. A sufficient number of 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 indicate the reasons for doing so, and shall provide the information to the Department upon request.

2. Clearance. The owner/operator shall ensure that non-aggressive clearance air monitoring is conducted prior to reoccupancy 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 for floors.

##### 2. Encapsulation/Enclosure Procedures.

a. During any encapsulation of regulated asbestos-containing materials the owner/operator shall ensure that:

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

(2) When airless sprayers are utilized, nozzle pressure shall be adjusted between 400 and 1500 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 regulated asbestos-containing materials 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 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 disposal requirements of Section IV.H. shall apply.

### **SECTION XIII. STANDARD FOR DEMOLITIONS.**

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

B. Notification.

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

a. Provide the Department with written notice of intent to demolish at least 10 working days in advance of the demolition, and pay all applicable fees. Acceptable delivery of the notice shall be by U.S. Postal Service, commercial delivery service, by hand or by other methods acceptable to the Department.

b. Submit a completed written notification of the demolition, which includes all information required in Section V.B.

c. Include a legible copy of the building inspection report for each facility to be demolished.

2. Notification requirements of Section XIII.B.1.a. shall apply to any facility including any facility in which the required building inspection indicates there are no asbestos-containing materials present.

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 10 working days before the demolition will begin. The Department may waive this requirement on a case-by-case basis, although the owner/operator shall provide all required information prior to commencing any

abatement or demolition activities.

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

a. Notify the Department by telephone as soon as possible before, but 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 written notice of the new start date as soon as possible before, but no later than, the original start date. Acceptable delivery of the notice shall be by U.S. Postal Service, commercial delivery service, by hand or by other methods acceptable to the Department.

c. Provide the Department with an updated written notice of the new completion date as soon as possible before, but no 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 acceptable to the Department.

d. Provide the Department with written notification 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 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 acceptable to the Department.

5. Regulated facilities being demolished under order of a State or local government agency because the facility is structurally unsound, in imminent danger of collapse, or is a public health or safety threat shall be exempt from the 10-working day notification requirement. However, the owner/operator shall submit a notification to the Department as early as possible before, but not later than, the following working day after the demolition begins.

a. The notice shall include all of the information required by Section V.B.4.a. - n. of this regulation.

b. The removal work practice requirements of Section V.D.2. and the exemption from wetting requirements of Section IV.G. shall apply.

c. The owner/operator shall submit the all of following information to the Department with the notification:

(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;

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

(4) A clear, legible copy of the signed order.

C. Removal of ACM prior to Demolition.

1. Any demolition of a structure or portion of a structure which contains structural members or

components composed of or covered by regulated asbestos-containing material shall be preceded by removal of all such materials.

2. All asbestos-containing materials, with the exception of those materials 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 and Analysis Procedures.

1. Background monitoring is not required.

2. The owner/operator shall ensure that daily area air monitoring is performed. Personal air monitoring performed in compliance with OSHA 29 CFR 1926.1101, as amended and any subsequent amendments and editions, and OSHA 29 CFR 1910.1001, as amended and any subsequent amendments and editions, may be used to satisfy this requirement when performed by a person licensed as an air sampler or who is covered under a Group license issued by the Department.

3. Clearance air monitoring is not required following ACM removal activities conducted for demolition purposes except when the area is to be utilized by unprotected personnel prior to demolition.

4. Visual inspection as indicated in EPA report 600/4-85-049 (1985) or an equivalent method acceptable to the Department must be performed by the facility owner or the owner's representative upon completion of the ACM removal.

5. Alternative work practices may be approved by the Department on a case-by-case basis.

#### 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 which 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 ACM (such as tape, mastic, glue, and adhesives) which 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, which does not contain asbestos, may be disposed of as construction debris at a landfill approved or permitted to accept the waste.

2. Debris containing non-friable asbestos-containing materials, which remains in place as allowed under Part E of this Section, shall be disposed of at a landfill permitted or approved to accept the waste, and may be transported and disposed of in bulk.

3. The following procedures shall be utilized in the handling of non-friable ACM:

a. The asbestos-containing debris shall be adequately wet at all times after demolition.

b. The asbestos-containing debris shall be adequately wet during the handling and loading of the waste for transport to the disposal site.

4. If at any point during handling and disposal, previously non-friable asbestos-containing materials become friable, then all State and Federal handling and disposal requirements for RACM shall be followed and the Department notified of the change.

5. If during the handling of asbestos-containing demolition debris, waste consolidation measures including grinding, crushing, compacting or recycling by mechanical or manual methods are utilized, all State and Federal handling and disposal requirements for RACM shall be followed.

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

#### G. 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 are no asbestos-containing materials 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 XIV. NON-FRIABLE PROJECTS.**

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

#### B. Notification.

1. Each owner/operator shall:

a. Contact the landfill to ensure acceptance of non-friable ACM waste.

b. Provide the Department with a written request for disposal prior to transporting waste from the facility site.

c. Provide the following information in the written request:

(1) Name, address and telephone number of property/facility owner.

(2) Street address of the property/facility where removal occurred.

(3) Amount of non-friable ACM to be disposed of.

(4) Description of material (for example cement-like tiles, asphaltic shingles, transite siding).

(5) Name and location (county, city, state) of the landfill which the owner/operator has contacted for disposal of ACM waste.

d. The written disposal permit issued by the Department acknowledges the landfill selected by the owner/operator and should 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 which will be or has been subjected to grinding, sanding, cutting, chipping 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 which will not be or has not been subjected to grinding, sanding, cutting, chipping 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 asbestos-containing materials 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 days of project completion.

### **SECTION XV. REQUIREMENTS FOR TRAINING COURSES, INSTRUCTORS, AND**

## **TRAINING PROVIDERS.**

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

B. 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 ASHARA 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; or

(b) The 16-hour Operation and Maintenance Worker Course as specified in Section XV.C. of this regulation; or

(c) The roofing workers and supervisors as specified in Section XI.I. of this regulation.

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.B. 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, written illustrations or representations or any other method 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 operation and maintenance worker training course may be conducted by a single qualified instructor if the instructor meets the minimum requirements of Part E of this Section.

b. Initial training courses in all disciplines (except worker) shall be taught by more than one instructor.

### 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 6½ 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 10 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. The examination for roofing and operation and maintenance courses shall consist of a minimum of 50 multiple choice questions for supervisor discipline and 25 for the worker discipline.

e. A trainee who fails to pass an examination with a minimum score of 70 on a 100-point scale may be retested once.

f. A trainee who fails to pass an examination on the second attempt shall retake the entire training course before being allowed to retest.

g. The Department may approve alternative testing as 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 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) An 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 passed an examination;

(7) For courses covered under 40 CFR Part 763, Subpart E, Appendix C as amended, and any subsequent amendments and editions, 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 (U.S.C.A. Section 2646), with the exception of roofing and operation and maintenance (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) Name of the principal instructor; 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 those who did not pass or otherwise complete the course;

(6) The certificate number 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 Section XV.8. to the Department upon request.

d. Failure to submit a written course notification or course roster in the time frame required in 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 the 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, but in all cases shall include the following:

(1) Course curriculum materials;

(2) Examinations and scores of all persons taking 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 training course approvals, disapprovals, suspensions or audits.

### C. Operation and Maintenance Worker Course.

1. An initial Operation and Maintenance training course shall be at least 16 hours in length and shall provide, at a minimum, information on 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.

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 protection 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 operation and maintenance 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, update information on state-of-the-art procedures and equipment, and review regulatory changes and interpretations. Actual instruction time shall be six and one-half hours. The Department may request

coverage of specific topics.

3. The requirements of Section XV of this regulation 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.

#### D. 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. Copy of high school, General Education Development (GED), or college/university diploma;
- b. Copy of all professional licenses relevant to the subject matter being taught; and
- c. Name, address and telephone number of the applicant's current employer.

#### E. Initial and Refresher Course Instructor Qualifications.

##### 1. Worker Discipline.

a. Previous Training. The applicant shall meet current EPA and Department accreditation requirements for supervisors; and

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 1440 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 E.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 E.1.b.(3)(b) of this Section.

## 2. Supervisor Discipline.

a. Previous Training. The applicant shall meet current EPA accreditation requirements for Supervisor; and

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 1440 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 E.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 E.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; and

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 E.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 E.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; and

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 E.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 E.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; and

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 E.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 E.5.b.(2)(b) of this Section.

#### F. 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 non-affiliated (not affiliated with the instructor) training provider for at least one discipline every other 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 asbestos-containing materials removed;
- (4) Number of workers supervised;
- (5) Name, address, and phone 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;

(5) Name, address, and telephone number of each training organization with which experience is claimed.

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

1. Operations and Maintenance Worker and Worker Refresher:
  - a. State of the Art Work Practices.
  - b. Hands-on Exercises (initial course only).
2. Workers and Worker Refresher:
  - a. State of the Art Work Practices.
  - b. Hands-on Exercises (initial course only).
3. Supervisors 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 Planners 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.

#### H. 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 XV.B., 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 which has reciprocity with the Department.

2. The training provider shall submit 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, and 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 how certificate numbers are generated.

k. Other applicable information requested by the Department.

3. The provider of any training course 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 notify 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.

#### I. 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 which have been audited by a state which has 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 the training course is in compliance with the following:

a. 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 B.9. of this Section.

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 as defined in Section XV of 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 which 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 Section XV.B. of 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 in Section XV.B.9. of 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 the 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 re-instated by the revoking agency.

## **SECTION XVI. 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. There are no size limits for asbestos projects involving RACM for which the applicable requirements of this regulation shall not apply, unless otherwise specified herein.

3. Section I. Definitions shall apply.

4. No person shall engage in any asbestos project or abatement involving regulated asbestos-

containing material unless licensed to do so by the Department.

5. 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.

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, II and III 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. Roofing workers and supervisors shall receive training consistent with Section XI.I.

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 Section XV.E.

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 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.

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, or telephone number, and any change in the long-term in-house contractor, or changes in personnel covered by the Group license.

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

a. An original certificate which is issued by the training course provider and which meets the requirements specified in Section XV.B.7.b. of this regulation; or

b. A valid, original license or accreditation issued by a state which 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 which 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 issuance of a license.

3. Fees may 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 regulated asbestos-containing materials being removed, and for previously non-regulated asbestos-containing materials 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 or square foot, with a minimum fee of \$25.00 and a maximum fee of \$1000.00. For RACM off the facility component such that the area or length cannot be measured prior to abatement, a minimum fee of \$25.00 will be assessed.

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, which 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 the application.

I. Denial. The requirements of Section III.F. shall apply.

J. 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.

K. Asbestos Project General Information.

1. Prior to beginning a renovation or demolition operation at a regulated facility, the owner/operator shall ensure that a building inspection is performed to identify the presence, location and estimated quantity of ACM which 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:

a. Follow procedures specified in 40 CFR 763.86 as amended, and any subsequent amendments and editions, in determining sampling locations and the number of representative samples to be collected. Samples shall be collected from friable and non-friable suspect ACM on affected interior and/or exterior facility components.

b. Prepare a detailed report based on findings of the inspection to include the information required in 40 CFR 763.85 (a)(4)(vi)(A)-(E) as amended, and any subsequent amendments and editions. Also include a description of non-suspect materials excluding: glass, metals, kiln brick, cement, fiberglass, concrete, pressed wood, cinder block, and rubber.

c. Provide an assessment of all materials suspected to contain asbestos, including an evaluation of the materials' current condition, estimated quantities and potential for disturbance.

d. Include name, license number, date of inspection, and signature of the licensed building inspector or management planner who performed the inspection and completed the report.

e. Ensure that bulk samples are analyzed in accordance with requirements specified in 40 CFR 763.87 as amended and any subsequent amendments and editions and this regulation. Any laboratory that retains proficiency as demonstrated by successful participation in a nationally recognized testing program may be acceptable.

#### L. Notification.

1. For NESHAP renovation projects refer to Section V.B.

2. For demolitions refer to Section XIII.

3. For small, minor, and operation and maintenance renovation projects either:

a. Provide the Department with written notification 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 acceptable to the Department.

(2) Postmark or deliver the notice at least five calendar days for small projects before asbestos stripping or removal work or any other activity begins that would break up, dislodge or similarly disturb regulated asbestos-containing material. For minor and operation and maintenance postmark or deliver the notice prior to 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 no 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; or

b. Maintain a log of all small, minor or operation and maintenance 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 asbestos-containing material 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.

M. 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 Section M.1. above.

N. Work Practices.

1. NESHAP projects performed, at an industrial manufacturing or electrical generating facility, by individuals covered under the facilities' 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 operation and maintenance activity performed at an industrial manufacturing or electrical generating facility shall be subject to the work practice requirements of Sections VI, VII and VIII whenever feasible. When not feasible, the owner/operator shall perform work in such a way to provide assurance of RACM containment.

3. 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.

4. 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.

5. Legible copies of Departmental letters of approval for alternative work practices shall be at the project site and available for inspection for the duration of abatement.

O. Exemption from Wetting for Any Size Project. The requirements of Section IV.G. shall apply.

P. Disposal. The requirements of Section IV.H. shall apply except as follows:

1. In lieu of locking metal dumpster doors and tops as required by IV.H.1.d.(7), 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, in lieu of the requirements of IV.H.2.g., the facility owner shall submit a copy of a completed waste shipment record or other shipping manifest to the Department within 45 days of shipment of the waste.

Q. Requirements for Training Courses and Training Instructors.

1. To be acceptable as a basis for licensing pursuant to this section, initial or refresher training which are subject to 40 CFR Part 763, shall require the course curriculum and instructors meet the applicable curriculum criteria in Section XV, and shall be approved by the Department.

2. Roofing course curriculum shall meet the requirements of Section XI, and instructors shall meet the applicable requirements and qualifications as specified in Section XV of this regulation.

R. Reprimands, Suspensions, and Revocation. The requirements of Section XVII shall apply.

S. Contested Cases. The requirements of Section XVIII shall apply.

T. Records. The requirements of Section XIX shall apply.

U. Other Requirements. The requirements of Section XX shall apply.

#### **SECTION XVII. 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, omission or improper use of work practices, improper disposal of ACM, or spread of asbestos emissions beyond the containment area.

#### **SECTION XVIII. CONTESTED CASES**

Any action taken by the Department pursuant to this regulation or enabling statutes, including, but not limited to permit denial, suspension, revocation or issuance of any civil penalty, may be subject to a contested case hearing. Any party desiring a contested case hearing pursuant to South Carolina Department of Health and Environmental Control Regulation 61-72, Procedures for Contested Cases, and the South Carolina Administrative Procedures Act, South Carolina Code 1-23-110, shall have 15 days from the date of the decision to address such a request to:

Clerk of the Board  
South Carolina Department of Health and Environmental Control  
2600 Bull Street  
Columbia, South Carolina 29201

#### **SECTION XIX. RECORDS.**

Each licensed asbestos owner/operator shall retain for at least three years all records required herein unless otherwise stated. These records shall be made available to the Department upon request.

#### **SECTION XX. 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 which 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 XXI. SEVERABILITY CLAUSE.**

The provisions of Sections I through XXI 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.

**R. 61-86.1 History - State Register:** (Doc. No. 548) Vol. 10, Issue No. 6, effective June 27, 1986; (Doc. No. 896) Vol. 12, Issue No. 5, effective May 27, 1988; (Doc. No. 1914) Vol. 20, Issue No. 6, effective June 28, 1996; (Doc. No. 1914) Vol. 20, Issue No. 7, Errata July 26, 1996; (Doc. No. 2171) Vol. 22, Issue No. 5, effective May 22, 1998); (Doc. No. 2670) Vol. 26, Issue No. 5, effective May 24, 2002)