

# RULES AND REGULATIONS FOR ASBESTOS CONTROL

[R23-24.5-ASB]

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

DEPARTMENT OF HEALTH

JULY 1985 (E)

## *AS AMENDED*

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## INTRODUCTION

These *Rules and Regulations for Asbestos Control (R23-24.5-ASB)* are promulgated pursuant to the authority conferred under section 23-24.5-5(c) of the General Laws of Rhode Island, 1956, as amended, and were established for the purpose of adopting standards for asbestos control to implement the provisions of Chapter 23-24.5 of the General Laws of Rhode Island, 1956, as amended. The February 1992 amendments were for the purpose of adopting regulations consistent with the AHERA Regulations (15 USC Sections 2641-2654), the regulations of the Environmental Protection Agency (40 CFR 763.80-763.99), to clarify existing regulations, and to adopt regulations necessary to implement delegation of the demolition/renovation portion of the Environmental Protection Agency's Asbestos NESHAP Standard (40 CFR 61, Subpart M).

Furthermore, pursuant to the provisions of sections 42-35-3(c)(3) and (c)(4) of the General Laws of Rhode Island, 1956, as amended, the following issues have been given serious consideration in arriving at the amended regulations:

- (a) Alternative approaches;
- (b) Overlap and duplication with other state regulations; and
- (c) Economic impact on "small business."

No comments received during and after the public hearing comment period pertained to alternative approach(s) or duplication or overlap with other state regulations. Several comments were presented at the public hearing concerning possible economic impact on "small business". As a result of an Asbestos Control Program staff review of these comments, it was determined that several regulations may result in possible economic impact on "small business". Notwithstanding any possible economic impact, these amended rules and regulations are adopted in the best interest of public health, safety and welfare and consistent with the statutory mandates placed on the Asbestos Control Program. In addition, Part F (NESHAP implementation) adopts requirements that are virtually identical to those contained in 40 CFR 61, Subpart M. These requirements would be in effect even if the state regulation were not enacted.

These rules and regulations shall supersede any previous *Rules and Regulations for Asbestos Control* promulgated by the Department of Health and filed with the Secretary of State.

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# **RULES AND REGULATIONS FOR ASBESTOS CONTROL**

[R23-24.5-ASB]

## **PART A**

### **DEFINITIONS, GENERAL PROVISIONS, ASBESTOS EXPOSURE STANDARD AND SUBMISSION OF ASBESTOS ABATEMENT PLANS**

JANUARY 1986

*AS AMENDED:*  
AUGUST 1986  
OCTOBER 1988  
FEBRUARY 1992

**PART A**  
**DEFINITIONS, GENERAL PROVISIONS, ASBESTOS EXPOSURE STANDARD**  
**AND SUBMISSION OF ASBESTOS ABATEMENT PLANS**

**A.1 DEFINITIONS**

Whenever used in these rules and regulations, the following terms shall be construed as follows:

Act - Title 23, Chapter 24.5 of the General Laws of the State of Rhode Island entitled Asbestos Abatement.

Adequately Wet - Sufficiently mixed or penetrated with liquid to prevent the release of particulates. If visible emissions are observed coming from ACM, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

Agency - The Rhode Island Department of Health, Division of Occupational and Radiological Health.

Agent - Any individual performing work on an asbestos abatement project for the Asbestos Contractor, that is not an employee of the Contractor (e.g. industrial hygiene subcontractor).

Amended Water - Water to which a surfactant has been added.

Asbestiform Materials - Those naturally occurring fibers of similar shape, size, strength, surface and characteristics of asbestos fibers as are otherwise described in the publication entitled "Non Occupational Health Risks of Asbestiform Fibers" published by the Committee on Non Occupational Health Risks of Asbestiform Fibers, Board on Toxicology and Health Hazards of the Commission on Life Sciences of the National Research Council; U. S. Environmental Protection Agency and National Academy of Sciences, National Academy Press, Washington, DC, 1984, E.P.A. 68-01-4655.

Asbestos - That unique group of naturally occurring minerals that separate into fibers of high tensile strength, resistant to heat, wear and chemicals, described as the following types: chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, and every product containing any of these materials that have been chemically treated and/or altered which, after manufacture, are used for such products and end uses as insulation, textiles, paper, cement sheets, floor tile, wall covering, decorations, coating, sealants, cement pipe and reinforced plastics and other compounds.

Asbestos Abatement - Any activity involving the removal, encapsulation, enclosure, renovation, repair, demolition or other disturbance of friable asbestos containing materials. Asbestos Abatement shall be synonymous with Asbestos Management for the purposes of these regulations.

Asbestos Abatement Planning Consultant - An individual who develops asbestos abatement/management plans required by Subpart A.4 of these regulations.

Asbestos Abatement Project - All activities, including site preparation and clean-up, associated with asbestos abatement, from the time of initial arrival of the contractor on-site through obtaining an acceptable final clearance air sample in the abatement area(s) and/or removal of all abated ACM from the project site, whichever is later.

Asbestos Abatement Site Supervisor - Any Asbestos Abatement Worker of a licensed Asbestos Contractor who has been specifically licensed as a supervisor by the Agency and is named on the Asbestos Contractor's license.

Asbestos Abatement Worker - Any employee of a licensed Asbestos Contractor who engages in Asbestos

Abatement.

Asbestos Containing Material (ACM) - Any material or product which contains more than one percent (1%) asbestos, as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM). If the asbestos content of friable material is less than 10 percent as determined by a method other than point counting by PLM, the asbestos content must be verified by point counting using PLM.

Asbestos Containing Waste Materials - RACM waste and materials contaminated with asbestos including disposable equipment and clothing.

Asbestos Contractor - Any person or entity engaged in asbestos abatement as a business and whose employees actually perform the asbestos abatement work. (see also: Asbestos Abatement)

Asbestos Hazard Emergency Response Act (AHERA) Regulations - Refers to specific amendments to Title II of the Toxic Substances Control Act enacted by 15 USC Sections 2641-2654 and the regulations of the U.S. Environmental Protection Agency contained in 40 CFR 763.80 through 763.99 (Subpart E).

Asbestos Inspection Consultant - An individual who: (1) conducts inspections and reinspections to identify locations of friable and nonfriable ACM; (2) collects bulk samples of homogeneous areas of friable surfacing materials; (3) conducts surveillance of thermal systems insulation; and/or (4) discharges other such related activities.

Asbestos Management Planner Consultant - An individual who, for any school or school building subject to the AHERA regulations: (1) develops an asbestos abatement/management plan for abatement action(s) no larger than small-scale short-duration maintenance activities, as defined by 29 CFR 1926.58 - Appendix G, that disturb friable ACM and/or for minor fiber release episode(s); (2) maintains records and reports of asbestos activities relating to the implementation of abatement/management plans; (3) is responsible for the implementation and administration of the abatement/management plan; and/or (4) discharges other such related activities.

Asbestos Project Designer Consultant - An individual who: (1) designs all types of abatement actions including other than small-scale, short-duration maintenance activities, as defined by 29 CFR 1926.58 - Appendix G, and major fiber release episodes; and/or (2) discharges other such related activities.

Authorized Asbestos Disposal Facility - A location approved for handling asbestos waste by the Rhode Island Department of Environmental Management or by an equivalent regulatory agency if the material is disposed of outside the state of Rhode Island.

Auxiliary Work - Work activity which does not directly involve the performance of an asbestos abatement project but may, in the process of assisting in the performance of that project, disturb or cause exposure to asbestos or asbestos-containing materials.

Category I Nonfriable Asbestos Containing Material (ACM) - Any ACM in the form of packings, gaskets, resilient floor covering, and asphalt roofing products.

Category II Nonfriable Asbestos Containing Material (ACM) - Any ACM, excluding Category I nonfriable ACM, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Clean Room - An uncontaminated area or room which is a part of the worker decontamination enclosure system with provisions for storage of worker's street clothes and clean protective equipment.

Competent Person - A designated public employee, designated public maintenance person, maintenance worker in the private sector, teacher and/or parent representative certified under the provision of Subpart D.2 of these regulations.

Cutting - Penetrating with a sharp-edged instrument. This term also includes sawing, but does not include shearing, slicing, or punching.

Demolition - The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility. (see also: Structural Member)

Emergency Asbestos Abatement Project - Any Asbestos Abatement Project which was not planned but results from a sudden, unexpected event. This includes operations required by non-routine failures of equipment.

Emergency Renovation Operation - A renovation operation that was not planned but: (a) results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard; (b) is necessary to protect equipment from damage; or (c) is necessary to avoid imposing an unreasonable financial burden. This term also includes operations necessitated by nonroutine failures of equipment.

Encapsulation - The application of an encapsulant to asbestos containing materials to control the release of asbestos fibers into the air. The encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant). [c.f. also: Removal Encapsulant]

EPA - The U.S. Environmental Protection Agency.

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

Facility - Any institutional, commercial, public or industrial structure, installation or building. For the purpose of compliance with Part F of these regulations, this definition also includes any ship and any structure, installation, or building containing condominiums or individual units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units. For the 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 either the NESHAP regulations [40 CFR 61, Subpart M] or these regulations is not excluded, regardless of its current use or function. This term does not include a private residence as defined in the Act.

Facility Component - Any part of a facility including equipment.

Friable Asbestos Material - Any ACM that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.

Glove Bag - A sealed compartment with attached inner gloves used for the handling of asbestos containing materials. Properly installed and used, glove bags provide a small work area enclosure typically used for small-scale asbestos stripping operations.

Grinding - Reducing to powder or small fragments. This term also includes mechanical chipping or drilling.

HVAC - Heating, ventilation and air conditioning system.

HEPA Filtration - High efficiency particulate air filtration found in respirators and vacuum systems capable of filtering 0.3 micron particles with 99.97% efficiency, for use in asbestos contaminated environments.

High Priority Areas - Those areas of a building which are used or occupied by a high percentage of the building population on a regular basis. Such areas include classrooms, cafeterias, gymnasiums, offices, places of assembly, work stations, corridors, lobbies, restrooms, and others that may be determined by the Director of Health.

High Priority Building - A child inhabited or child frequented structure either privately or publicly owned. This category shall include, but not be limited to, public and parochial schools (Grades pre-K to 12), day care centers, nurseries, acute or chronic children's hospitals (or wardrooms thereof) as otherwise defined by the National Building Code Use Groups E, B and I. Private residences used for the above purposes and housing or occupied by ten (10) children or less are excluded from this group.

Homogeneous Material - Asbestos containing material having a similar distribution of mineralogical types of asbestos and approximately the same percentages of each type throughout.

Individual - Any human being.

Industrial Hygiene Consultant - An individual who provides industrial hygiene services in one or more of the following categories: Collection of Air Samples; Compliance Monitoring of Asbestos Abatement/ Management Plans; and/or Respiratory Protection Programs.

In Poor Condition - The binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.

Installation - Any building or structure or any groups of buildings or structures at a single demolition or renovation site that are under the control of the same owner or operator (or owner or operator under common control).

Intermediate Priority Building - Public buildings, other than those in the high and low priority groups, which are designated within the National Building Code Use Groups as follows: Places of public assembly (Group A); structures occupied by adult inmates and/or patients, and state employees (Group I); colleges, hospitals, and auditoriums (Group I); and occupied places of employment (Group F). Also included are private buildings which are: private colleges, hospitals, banks, and other business, industrial, educational and mercantile institutions (Groups M, H, I, R1 and R2) including, but not limited to, hotels, motels, multi-family dwellings and places of employment with more than ten (10) employees.

Leak-Tight - Solids or liquids cannot escape or spill out. This term also means dust-tight.

License - The permit issued by the Agency to allow an Asbestos Contractor to engage in asbestos abatement projects.

Low Priority Areas - Those areas of a building which are used or occupied by a small fraction of the building population or very infrequently used. Such areas include general access storage rooms and manned boiler rooms unless these areas supply ventilation air to other parts of the building, in which case they would be classed according to the areas served by the ventilation air. These are areas where exposure to asbestos would be limited to a small number of people and where a reasonable course of action would be educating occupants or users of these areas in proper prevention and safety techniques.

Low Priority Building - Public or private buildings which are not in the other groups and which are infrequently used or closed, or abandoned or scheduled for same in the immediate future and those structures which are private residences (Groups S, R3 and 4).

Major Fiber Release Episode - The falling or dislodging of greater than three (3) square or linear feet of friable ACM.

Minor Fiber Release Episode - The falling or dislodging of three (3) square or linear feet or less of friable ACM.

NESHAP - The National Emission Standards for Hazardous Air Pollutants.

NIOSH - The National Institute for Occupational Safety and Health.

Nonfriable Asbestos Containing Material (ACM) - Any ACM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Nonscheduled Renovation Operation - A renovation operation necessitated by the routine failure of equipment, which is expected to occur within a given period based on past operating experience, but for which an exact date cannot be predicted.

Outside Air - The air outside buildings and structures including, but not limited to, the air under a bridge or in an open air ferry dock.

Owner - The person or entity having legal title to property and/or buildings. For purposes of publicly owned property only, the owner shall be defined to be the chief executive officer of the state or municipal agency which owns, leases or controls the use of the property.

Owner or Operator of a Demolition or Renovation Activity - Any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition or renovation operation, or both.

OSHA - The Occupational Health and Safety Administration of the U.S. Department of Labor.

Particulate Asbestos Material - finely divided particles of asbestos or material containing asbestos.

Person - Any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this State, and other State or political subdivision or agency thereof, and the legal successor, representative, agent or agency of the foregoing.

Planned Asbestos Abatement Project - An asbestos abatement project or a number of such projects in which the amount of asbestos containing material to be removed, stripped or otherwise disturbed within a given period of

time can be predicted. Individual, non-scheduled abatements are included if a number of such operations can be predicted to occur during a given period of time based on operating experiences.

Planned Renovation Operations - A renovation operation, or a number of such operations, in which some RACM will be 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.

Private Residence - Any structure which is designated within National Building Code Use Groups R3 or R4.

Regulated Asbestos Containing Material (RACM) - (a) Friable asbestos 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 has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of the demolition or renovation operations regulated by these regulations.

Removal - The taking out of RACM or facility components that contain, or are covered with, RACM from any facility.

Removal Encapsulant - A penetrating encapsulant specifically designed for use in removal of asbestos containing material rather than for permanent encapsulation.

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.

Repair - The restoration of asbestos containing insulation that has been damaged, usually located on pipes, boilers, tanks, turbines, ducts or other facility components. Repair usually consists of the application of duct tape, rewettable glass cloth, canvas, cement or other suitable material to seal exposed areas where asbestos fibers may be released. Repair of previously encapsulated asbestos containing materials may involve filling damaged areas with non-asbestos substitutes and re-encapsulating. Repair of enclosures around asbestos containing materials is also included in this category of abatement.

Restricted Use Areas - Those areas of a building which have infrequent occupancy such as unmanned boiler rooms, mechanical rooms, electrical rooms and secured storage rooms unless those areas supply ventilation air to the other parts of the building, in which case they would be classed according to the areas served by the ventilation air.

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 the methods specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy or any other method approved by the EPA for this type of analysis.

Shower Room - A room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold or warm running water controllable at the tap and suitably arranged for complete showering during decontamination.

Spot Repair - Any removal, repair, encapsulation, enclosure or other disturbance which encompasses: (1) up to ten (10) linear feet of asbestos from piping and/or (2) up to twenty five (25) square feet of asbestos from any surfaces other than pipes. Large project divided into smaller segments are not Spot Repairs.

Strip - To take off RACM from any part of a facility or facility components.

Structural Component - Any pipe, duct, boiler, tank, reactor, turbine or furnace at or in a facility or any structural member of a facility. (see also: Structural Member)

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.

Structure - A whole facility, building or a major portion thereof, such as a building wing.

These Regulations - All Parts of the Rhode Island Rules and Regulations for Asbestos Control.

Visible Emissions - Any emissions, which are visually detectable without the aid of instruments, coming from RACM or Asbestos Containing Waste Material.

Waste Generator - Any owner or operator of a facility covered by these regulation whose act or process produces Asbestos Containing Waste Material.

Waste Shipment Record - The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of Asbestos Containing Waste Material.

Wet Cleaning - The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops or other cleaning utensils which have been dampened with amended water or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of as asbestos contaminated waste.

Wet Methods, Wetted or Wetting Agents - The use of amended water or removal encapsulants to control fiber release from asbestos containing materials.

Working Day - Monday through Friday and includes holidays that fall on any of the days Monday through Friday.

## **A.2 GENERAL PROVISIONS**

### **A.2.1 Purpose and Scope**

These regulations provide for the licensing of Asbestos Contractors, the submission of asbestos abatement plans and other requirements related to the safe abatement of asbestos hazards.

### **A.2.2 Exemptions, Variance and Practices and Procedures**

- (a) The requirements for licensing and the submission of an asbestos abatement plan shall not apply to the performance of spot repairs.
- (b) The requirements for licensing and the submission of an asbestos abatement plan shall not apply to private residences as defined in these regulations.
- (c) **Variance Procedures**

- (1) The Agency may grant a variance, either upon its own motion or upon request of the applicant, from the provisions of any rule or regulation in a specific case if it finds that a literal enforcement of such provision will result in unnecessary hardship to the applicant and that such a variance will not be contrary to the public interest, public health and/or health and safety of the public.
- (2) A request for a variance shall be filed by an applicant in writing, setting forth in detail the basis upon which the request is made. Upon filing of each request for a variance with the Agency, and within thirty (30) days thereafter, the Agency shall notify the applicant by certified mail of its approval, or in the case of a denial, a hearing date, time and place may be scheduled if the applicant appeals the denial and in accordance with the provisions of Paragraph A.2.2(d) of these regulations.

(d) ***Rules Governing Practices and Procedures***

All hearings and reviews required under the provisions of Chapter 23-24.5 of the General Laws of Rhode Island, 1956, as amended, shall be held in accordance with the provisions of the rules and regulations promulgated by the Rhode Island Department of Health entitled, Rules and Regulations Governing the Practices and Procedures Before the Rhode Island Department of Health (R42-35-PP).

A.2.3 ***Prohibitions***

- (a) No asbestos abatement project shall be undertaken unless the Asbestos Contractor is licensed with the Agency and an asbestos abatement plan has been approved by the Agency.
- (b) No on-site work for an approved asbestos abatement project may be conducted unless at least one of the Asbestos Contractor's licensed Asbestos Abatement Site Supervisors and an individual certified by the American Red Cross (or equivalent) in Cardio-Pulmonary Resuscitation and basic first-aid are physically present on the job site.
- (c) No owner shall allow any person to be exposed to friable asbestos materials when such exposure is a violation of the provisions of the Act, these regulations or the indoor non-occupational air exposure standard defined in Subpart A.3 of these regulations.
- (d) No building or demolition permit involving asbestos abatement shall be issued by any municipal or state official unless the application for the permit includes a certified copy of an approved abatement plan and a certified copy of the license of the Asbestos Contractor who shall undertake the work.
- (e) Individuals certified only for spot repairs in accordance with Subpart D.2 of these regulations shall not undertake any asbestos abatement project which is: (1) larger than the size limits for a Spot Repair as defined by these regulations; or (2) in buildings other than those specifically authorized on their Certification.

A.2.4 ***Closing of Buildings***

- (a) The Director of Health may prohibit and/or limit access to any building or portion of a building in which the Director of Health, after notice and hearing, has found to contain friable asbestos in such condition or amount that there exists a public health danger. Access to such areas shall be limited to individuals designated as competent persons for said area or certified as consultants in accordance with Subpart D.4 of these regulations.

- (b) No building or portion thereof to which access has been prohibited and/or limited in accordance with the provisions of Paragraph A.2.4(a) of these regulations shall be reopened to unlimited access until the Director of Health issues a reoccupancy permit.

### **A.3 INDOOR NON-OCCUPATIONAL AIR EXPOSURE STANDARD**

- A.3.1 For the purposes of these regulations, the Indoor Non-Occupational Air Exposure Standard for asbestos exposure shall be 0.01 fibers per cubic centimeter (f/cc) for fibers greater than five (5) microns in length as measured by OSHA-NIOSH phase contrast optical microscopic methods and calculated as an eight (8) hour time weighted average (or 300 nanograms per cubic meter).

### **A.4 SUBMISSION OF ASBESTOS ABATEMENT PLANS**

#### **A.4.1 General Requirements**

- (a) Any building owner who intends to conduct an asbestos abatement project, with the exception of spot repairs as defined in these regulations, must submit an asbestos abatement plan in compliance with the requirements of Part C of these regulations and must not proceed with said project until written approval of said plan has been received from the Agency.
- (b) Any building owner who is notified that the results of an Agency evaluation conducted in accordance with Part E of these regulation indicate that an asbestos abatement plan is required shall submit said plan to the Agency within one hundred twenty (120) days of receipt of said notice.
- (c) In addition to the requirements of Paragraph A.4.1(b) of these regulations, any building owner who is notified that areas have received an Asbestos Hazard Rating greater than ninety (90) shall, within ten (10) days of receipt of said notice, submit to the Agency the immediate corrective action(s) to be taken, as well as an Interim Operations and Maintenance Plan in accordance with Paragraphs C.1.2(b) and (c) of these regulations.

#### **A.4.2 Emergency Asbestos Abatement Projects**

- (a) The work procedures contained in Subpart B.8 of these regulations will apply to all Emergency Asbestos Abatement Projects unless specific alternative procedures have been approved by the Agency.
- (b) A building owner shall contact the Agency in advance for permission to conduct an Emergency Asbestos Abatement Project in the absence of an approved asbestos abatement plan. Ordinarily permission will be granted only to prevent personnel injury or property damage. However, if the emergency is of such a nature that immediate action is deemed essential, the building owner may proceed to resolve the emergency in the most expeditious manner possible. Nevertheless, all asbestos abatement that is beyond the scope of Spot Repairs, as defined by these regulations, must be performed by a licensed asbestos contractor. The building owner shall notify the Agency no later than one (1) working day following the beginning of an emergency asbestos abatement project and confirm the name and license number of the Asbestos Contractor, the amount of asbestos containing material involved and the expected length of the abatement project. Within ten (10) working days of completing the project, the building owner shall submit a written report to the Agency which includes

as a minimum: a narrative description of the area(s) abated, including the type and quantity of asbestos containing material; annotated blueprint(s), floorplan(s) or other engineering drawing(s) which show the location(s) of abated and remaining asbestos containing material; specific work procedures followed during the abatement process; copies of the results of clearance air testing; copies of disposal receipts for all asbestos that was removed; and any other information specifically requested by the Agency.

- (c) Removal of asbestos containing material from a building ordered demolished by a municipal building official in accordance with Section 23-27.3-125.5 of the General Laws of Rhode Island may be handled as an Emergency Asbestos Abatement Project under the following conditions:
  - (1) All asbestos abatement work is performed by a licensed Asbestos Contractor under the provisions of an Asbestos Abatement Plan previously approved for the demolition of unsafe structures in the jurisdiction of the municipal building official ordering the demolition;
  - (2) The licensed Asbestos Contractor complies with the provisions of Paragraphs A.4.2(a) and (b) of these regulations;
  - (3) The Asbestos Contractor provides the Agency with all project specific information required by the approval letter for the previously approved Asbestos Abatement Plan and not included with the reports required by Paragraph B.2.2(a) of these regulations; and
  - (4) All asbestos containing material is removed from the building prior to its demolition.

# **RULES AND REGULATIONS FOR ASBESTOS CONTROL**

[R23-24.5-ASB]

## **PART B**

### **ASBESTOS CONTRACTORS**

JANUARY 1986

***AS AMENDED:***  
AUGUST 1986  
OCTOBER 1988  
JUNE 1990  
FEBRUARY 1992

**PART B**  
**ASBESTOS CONTRACTORS**

**B.1 LICENSING OF ASBESTOS CONTRACTORS, SITE SUPERVISORS AND WORKERS**

**B.1.1 General Licensing Requirement**

No person shall engage in any asbestos abatement project at a facility unless he is licensed to do so by the Agency under the provisions of this Subpart.

**B.1.2 Applicability**

- (a) The licensing requirements of this Subpart apply to all Asbestos Contractors, as defined in these regulations, and each of their Asbestos Abatement Site Supervisory Personnel and Asbestos Abatement Workers.
- (b) Persons who perform only spot repairs are exempted from the licensing requirement contained in Paragraph B.1.2(a) of these regulations. However, persons performing spot repairs must be certified in accordance with Subpart D.2 of these regulations.

**B.1.3 License Application**

- (a) To apply for a license, an Asbestos Contractor or Asbestos Abatement Worker shall submit a completed application to the Agency on forms provided by the Agency. The application shall include all information required by the Act, as well as by the form and accompanying instructions.
- (b) The Agency may at any time after the filing of the original application require further information in order to enable the Agency to determine whether the application should be approved or denied.
- (c) Each application for an Asbestos Contractor License shall be signed by the applicant or a person duly authorized to act on behalf of the applicant. Each application for an Asbestos Abatement Worker License shall be signed by the applicant. All applications shall include a certification by the applicant that his License or other authorization to perform asbestos abatement work has not been suspended or revoked by any other state and that no enforcement actions by any state or federal agency are pending against the applicant.
- (d) Site supervisors shall be licensed in conjunction with an application for a license by an Asbestos Contractor. Subsequent to the issuance of an Asbestos Contractor's license, the licensed Asbestos Contractor shall not utilize any individual as an Asbestos Abatement Site Supervisor until the individual's qualifications have been approved by the Agency and an amended license document has been issued.
- (e) Effective 1 September 1990, all Asbestos Abatement Workers must be licensed on an individual basis. As of this date, licensed Asbestos Contractors shall not utilize any individual as an Asbestos Abatement Worker until the individual's qualifications have been approved by the Agency and an Asbestos Abatement Worker License has been issued. Any person possessing a valid Asbestos Abatement Site Supervisor License issued by the Agency shall be considered to also possess an

Asbestos Abatement Worker License for the purpose of these regulations.

**B.1.4 License Fees and Issuance/Renewal of Licenses**

**(a) Asbestos Abatement Contractors**

Pursuant to the provisions of Section 23-24.5-12(h) of the General Laws of Rhode Island, 1956, as amended, the Agency shall grant a license to an Asbestos Abatement Contractor who meets the licensure requirements set forth in these regulations, and upon submission of the licensure fee of one thousand five hundred dollars (\$1500) made payable by check to the General Treasurer, State of Rhode Island. Said license shall expire two (2) years from the date of issuance unless sooner suspended or revoked. Said license may be renewed every two (2) years in accordance with the provisions of Section B.1.8 of these regulations and upon payment of the licensure renewal fee of one thousand five hundred dollars (\$1500) made payable by check to the General Treasurer, State of Rhode Island.

**(b) Asbestos Abatement Site Supervisors**

Pursuant to the provisions of Section 23-24.5-12(h) of the General Laws of Rhode Island, 1956, as amended, the Agency shall grant a license for an Asbestos Abatement Site Supervisor, as requested by an Asbestos Abatement Contractor, provided said Asbestos Abatement Site Supervisor(s) meet the licensure requirements set forth in these regulations, and upon submission of the licensure fee of forty dollars (\$40) for each Asbestos Abatement Site Supervisor made payable by check to the General Treasurer, State of Rhode Island. Said license shall be issued for a period no longer than two (2) years and shall expire on the same date as the license of the requesting Asbestos Abatement Contractor unless sooner suspended or revoked. Said license may be renewed every two (2) years in accordance with the provisions of Section B.1.8 of these regulations, upon documentation of compliance with the requirements of Section B.3.1 of these regulations, and upon payment of the licensure renewal fee of forty dollars (\$40) made payable by check to the General Treasurer, State of Rhode Island.

(c) No license shall be issued or renewed until the correct fee has been remitted. Fees will not be prorated for a period of time less than the full term of a license.

**(d) Asbestos Abatement Workers**

Pursuant to the provisions of Section 23-24.5-12(e) of the General Laws of Rhode Island, 1956, as amended, the Agency shall grant a license for an Asbestos Abatement Worker provided said Asbestos Abatement Worker meets the licensure requirements set forth in these regulations, and upon submission of the licensure fee of twenty dollars (\$20) made payable by check to the General Treasurer, State of Rhode Island. Said license shall be issued for a period no longer than one (1) year and shall expire on the last day of the month in which the Asbestos Abatement Worker's initial or annual review training expires, unless sooner suspended or revoked. Said license may be renewed annually in accordance with the provisions of Section B.1.8 of these regulations, upon documentation of compliance with the requirements of Section B.3.1 of these regulations, and upon payment of the licensure renewal fee of twenty dollars (\$20) made payable by check to the General Treasurer, State of Rhode Island.

**B.1.5 Denial of Applications**

- (a) The Agency may deny an application if it determines that the applicant has not demonstrated the ability to comply fully with applicable requirements established by the Act and/or by these regulations.
- (b) An applicant whose application is denied may request a hearing in accordance with the Administrative Procedures of the Rhode Island Department of Health.

**B.1.6 Suspension or Revocation of a License and/or Imposition of Civil Penalties**

The Agency may, for cause or for violation of these regulations, suspend or revoke any license issued under this Subpart and/or impose civil penalties in accordance with the Act.

**B.1.7 Replacement of Lost or Damaged License**

- (a) Application for replacement of a lost or damaged Site Supervisor License must be made by the Asbestos Abatement Contractor employing said Site Supervisor and must be accompanied by the fee required by Paragraph B.1.4(b) of these regulations.
- (b) Application for replacement of a lost or damaged Asbestos Abatement Worker License must be made by the licensed individual and must be accompanied by the fee required by Paragraph B.1.4(d) of these regulations.

**B.1.8 Renewal of a License**

- (a) Requests for renewal of licenses issued under this Subpart must contain all the information requested by Section B.1.3 of these regulations without reference to any previously submitted material.
- (b) In any case in which an Asbestos Contractor or Asbestos Abatement Worker, not less than 30 days prior to expiration of his existing license, has filed an application in proper form for renewal, such existing license shall not expire until final action on the application has been taken by the Agency.

**B.1.9 Additional Requirements**

The Agency may, by rule, regulations, or order, impose upon any licensee such requirements in addition to those established in these regulations as it deems appropriate or necessary to minimize danger to public health and safety or property.

**B.1.10 Communications**

All communications and reports concerning these regulations, and applications filed thereunder, should be addressed to the Agency at its office located at:

Rhode Island Department of Health  
Division of Occupational and Radiological Health  
206 Cannon Building  
Three Capitol Hill  
Providence, RI 02908-5097

**B.2 RECORDKEEPING AND NOTIFICATION**

**B.2.1 Notification of Asbestos Abatement Projects**

- (a) A licensed Asbestos Abatement Contractor shall utilize the most current revision of Agency Form ASB-22 to notify the Agency in writing at least ten (10) working days before beginning any on-site work at a planned asbestos abatement project. A licensed Asbestos Abatement Contractor may not submit this notification until the building owner has received notification of Agency approval for the planned asbestos abatement project. Delivery of the notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable. Electronic methods of notification (e.g. FAX) can not be used to comply with this requirement.
- (b) A licensed Asbestos Contractor or Site Supervisor shall also notify the Agency by telephone when they begin on-site preparation for an approved asbestos abatement project.
- (c) In accordance with the provisions of Section 23-28.4-6.1 of the General Laws of Rhode Island, a licensed Asbestos Contractor shall also notify the local fire fighting authorities, in writing, prior to initiating any activity in conjunction with an approved asbestos abatement project.
- (d) The written notice required by paragraph (a) above shall be updated as necessary, including when the amount of asbestos changes by at least twenty (20) percent.
- (e) If an Asbestos Abatement Project will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Agency as follows:
  - (1) When the Asbestos Abatement Project will begin after the date contained in the notice:
    - (i) Notify the Agency of the new start date by telephone as soon as possible before the original start date; and
    - (ii) Provide the Agency with a written notice of the new start date as soon as possible before, and no later than, the original start date.
  - (2) When the Asbestos Abatement Project will begin on a date earlier than the original start date, provide the Agency with a written notice of the new start date at least ten (10) working days before the Asbestos Abatement Project begins.
  - (3) In no event shall an Asbestos Abatement Project begin on a date other than the date contained in the written notice of the new start date.

## B.2.2 **DELETED**

### B.2.3 ***Retention of Records***

Each licensed Asbestos Contractor shall maintain records of all asbestos abatement projects which it performs and shall make these records available to the Agency upon request. The Asbestos Contractor shall retain the records until the Agency authorizes their disposition.

### B.2.4 ***Required Records***

The Asbestos Abatement Contractor shall maintain the following information for each asbestos abatement project at the project site for the duration of the project:

- (a) The name, address and license number of each Asbestos Abatement Site Supervisor and Asbestos Worker utilized on the project.
- (b) A complete copy of the approved asbestos abatement plan for the project, including all amendments.
- (c) ***Starting and completion dates*** If completion date differs from that originally scheduled, a statement of reasons for the change must be included.
- (d) Documentation of compliance with all applicable regulatory requirements. (e.g., Copies of workers' medical monitoring and results of respirator fit testing.)
- (e) Copies of any correspondence with regulatory agencies concerning the project (e.g. building or demolition permits, notices of violation, etc).
- (f) Receipts and/or manifests indicating the date(s) and amount(s) of ACM removed from the abatement project site for disposal, as well as the location(s) to which the ACM has been removed and/or the agent(s) to whom the ACM was transferred.
- (g) The methodology and results of all air sampling conducted by the Asbestos Contractor during the abatement process. The results of all air sampling required by OSHA 29 CFR 1926.58(f) shall be maintained in accordance with OSHA 29 CFR 1926.58(n).
- (h) Documentation of current required annual review training for all Asbestos Abatement Site Supervisor(s) and Asbestos Abatement Worker(s) utilized on the Asbestos Abatement Project, as well as a list of other agents working for the Asbestos Abatement Contractor. Copies of current Agency issued Asbestos Abatement Worker licenses may be maintained in lieu of the required training documentation.
- (i) A log of control of access to the work areas.
- (j) A current copy of these regulations.
- (k) Documentation of adequacy of compressed air systems/respiratory protection systems. This documentation must include a list of compatible components. The maximum number of respirators that may be used with the system and the types of respirators that may be used shall be specified.

- (l) Copies of the procedures for the utilization of the decontamination enclosure system and/or any other procedures which have been established to prevent contamination of areas outside the work area.
- (m) Copies of procedures to be followed during medical emergencies, including phone numbers of the nearest hospital and/or rescue squad that will accept individuals with potential asbestos contamination. A 24-hour Emergency Contact Number for the Asbestos Abatement Contractor must be posted on site at all times.
- (n) Asbestos Abatement Site Supervisor and Asbestos Abatement Worker licenses must be worn or prominently posted at the project site whenever the licensed individual is being utilized in conjunction with an Asbestos Abatement Project.

### ***B.3 TRAINING REQUIREMENTS***

#### ***B.3.1 General Training Requirement***

- (a) Licensed Asbestos Contractors shall not allow any Asbestos Abatement Worker or Asbestos Abatement Site Supervisor to participate in asbestos abatement projects until the initial training requirement contained in Section B.3.2 of these regulations has been satisfied. The criteria for successful completion of a required training course must include obtaining a passing score on the final course examination, unless the certified training course has been specifically authorized in writing by the Agency to use an alternative method of determining successful completion.
- (b) Asbestos Abatement Workers and Asbestos Abatement Site Supervisors may not continue to work beyond the anniversary of their initial training or last annual review course until a current annual review course has been completed.
- (c) Asbestos Contractors shall satisfy the training requirement either by utilizing certified courses offered by outside agents or by establishing an in-house training program and submitting it for certification in accordance with the procedures contained in Subpart D.1 of these regulations.
- (d) The Asbestos Contractor shall ensure that Asbestos Abatement Workers and Asbestos Abatement Site Supervisors successfully complete a certified annual review course of at least eight (8) hours duration (exclusive of lunch and break times) as outlined in Section B.3.4 of these regulations.
- (e) The Asbestos Contractor shall ensure that personnel designated as Asbestos Abatement Site Supervisor also successfully complete a certified initial training course of at least six (6) hours duration (exclusive of lunch and break times) as outlined in Paragraph B.3.3(b) of these regulations.

### B.3.2 *Certification of Training*

Requirements for certification of training courses shall be those contained in Subpart D.1 of these regulations.

### B.3.3 *Content of Initial Training Courses*

- (a) The initial training course shall provide, at a minimum, information on the following topics:
- (1) The physical characteristics of asbestos including fiber size, aerodynamic characteristics and physical appearance;
  - (2) 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 for disease and health basis for standards;
  - (3) Asbestos Abatement Worker personal protective equipment including: the classes and characteristics of respirator types; limitations of respirators; proper selection, inspection, donning, use, maintenance and storage procedures; methods for field testing of the facepiece-to-face seal (positive and negative pressure fitting tests); qualitative and quantitative fit testing procedures; variability between field and laboratory protection factors; factors that alter respirator 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 launderable clothing, non-slip footwear, gloves, eye protection and hard hats;
  - (4) Medical monitoring procedures and requirements included under OSHA 29 CFR 1926.58 and 29 CFR 1910.134, additional recommended procedures and tests, benefits of medical monitoring and employee access to records;
  - (5) Air monitoring procedures and requirements included under OSHA 29 CFR 1926.58 including a description of equipment and methods, reasons for air monitoring, types of samples and current standards with proposed changes;
  - (6) Additional safety hazards that may be encountered during asbestos abatement activities and how to deal with them including electrical hazards, heat stress, air contaminants other than asbestos, fire and explosion hazards, scaffold and ladder hazards, slips, trips and falls, confined spaces and noise;
  - (7) Personal hygiene including entry and exit procedures for the work area, use of showers and prohibition of eating, drinking, smoking and chewing (gum or tobacco) in the work area;
  - (8) State-of-the-art work practices for asbestos abatement activities including purpose, proper construction and maintenance of barriers and decontamination enclosure systems, posting of warning signs, electrical and ventilation system lock-out, proper working techniques for minimizing fiber release, use of wet methods and surfactants, use of negative pressure ventilation equipment, use of HEPA vacuums and proper clean-up and disposal procedures. Work practice requirements as they apply to removal, repair, enclosure and encapsulation shall be discussed individually; and
  - (9) The requirements, procedures and standards established by OSHA, EPA and the provisions of the Act and these regulations.

- (b) In addition to the training specified in Paragraph B.3.3(a) above, individuals designated as Asbestos Abatement Site Supervisors shall also receive at least six (6) hours of additional training (exclusive of lunch and break times) which shall provide, at a minimum, information on the following topics:
- (1) Legal responsibilities and potential liabilities of various parties including, but not limited to, contractors licensees, employers, employees, building owners and suppliers;
  - (2) Insurance and bonding;
  - (3) Establishing a medical surveillance program in accordance with OSHA 29 CFR 1926.58(m);
  - (4) Rhode Island Department of Health, EPA, and OSHA recordkeeping requirements;
  - (5) How to supervise effectively;
  - (6) Additional emphasis on work practices, including purpose, proper construction and maintenance of barriers and decontamination systems, posting of warning signs, electrical and ventilation system lock-out, proper working techniques for minimizing fiber release, use of wet methods and surfactants, use of negative pressure ventilation equipment, use and maintenance of HEPA vacuums, proper clean-up and disposal procedures; and
  - (7) Key elements of contract specifications.

#### **B.3.4 *Content of Annual Training Courses***

The yearly review course shall consist of at least eight (8) hours of instruction and shall provide, at a minimum, an adequate review of the topics outlined in Section B.3.3 of these regulations, updated information on state-of-the-art procedures and equipment and reviews of regulatory changes and interpretations. Specific topic coverage may be requested by the Agency.

### **B.4 *RESPIRATORY PROTECTION***

#### **B.4.1 *General Requirement***

All license applications from Asbestos Contractors shall include a written respiratory protection program in accordance with the requirements of OSHA 29 CFR 1910.134(b) and 29 CFR 1926.58(m). This program shall be posted at all projects requiring asbestos abatement activities over more than a single day.

#### **B.4.2 *Selection Requirements***

Respirators shall be selected that meet the level of protection requirements contained in OSHA 29 CFR 1926.58(h) and shall be utilized in accordance with OSHA 29 CFR 1910.134.

#### **B.4.3 *Fitting of Respirators***

- (a) Each Asbestos Abatement Worker shall be given an opportunity to try on a variety of respirator styles and sizes and to select a respirator for comfortable fit.

- (b) Each Asbestos Abatement Worker shall be instructed in the performance of positive and negative pressure fit checks and be able to successfully perform them.
- (c) Each Asbestos Abatement Worker shall be fit tested using generally acceptable quantitative fit testing methods or by qualitative fit testing procedures as detailed in the OSHA Construction Industry Standard, 29 CFR 1926.58, Appendix C - Qualitative and Quantitative Fit Testing Procedures, and adequately pass the selected fit test procedure.
- (d) Asbestos Abatement Workers shall be provided with the brand name and model number of respirators that they have been fitted for and are trained to use.

#### **B.4.4 *Prohibited Activity***

- (a) No Asbestos Abatement Worker or agent shall be permitted in the work area without the respiratory protection required for the level of exposure in the workplace. This requirement shall be strictly enforced by the Asbestos Contractor.
- (b) No personnel with beards, long sideburns or other physical characteristics which interfere with negative pressure respirator faceplate-to-face seal shall be permitted in the work area when respiratory protection is required by the level of exposure.

### **B.5 *PROTECTIVE CLOTHING***

#### **B.5.1 *General Requirement***

Each Asbestos Abatement Worker shall be provided with personal protective equipment and clothing in accordance with OSHA 29 CFR 1926.58(i).

### **B.6 *MEDICAL MONITORING***

#### **B.6.1 *General Requirement***

Asbestos Contractors must ensure that any Asbestos Abatement Worker or agent who may be exposed to airborne asbestos is medically monitored in accordance with the requirements of OSHA 29 CFR 1926.58(m), prior to engaging in any asbestos abatement activity. Monitoring shall include, at a minimum, those elements required by OSHA 29 CFR 1926.58(m)(2)(ii).

B.6.2 Asbestos Abatement Workers must also be given an opportunity to be evaluated by a physician to determine their capability to safely work while breathing through the added resistance of a respirator. Examining physicians should be made aware of the nature of respiratory protective hazards and knowledgeable about the specific types of respirators the Asbestos Abatement Worker shall be required to wear and the work he will be required to perform. They should also be advised as to special hazards that may exist in the work place (e.g. high temperatures, toxic contaminants).

B.6.3 Chest X-rays shall be taken by a Registered Radiological Technologist and interpreted in accordance with OSHA 29 CFR 1926.58, Appendix E - Interpretation and Classification of Chest Roentgen-grams.

- B.6.4 Pulmonary function testing shall be conducted by a NIOSH Certified Pulmonary Technician or other health professional with training in pulmonary function testing.

## **B.7 WORKER AIR MONITORING**

### **B.7.1 General Requirement**

The Asbestos Contractor must provide representative air monitoring, in accordance with OSHA 29 CFR 1926.58(f), for Asbestos Abatement Workers during asbestos abatement activities. Affected Asbestos Abatement Workers and agents of the Asbestos Contractor must be notified of the results of air monitoring in accordance with OSHA 29 CFR 1926.58(f)(6).

## **B.8 WORK PRACTICE REQUIREMENTS**

### **B.8.1 Applicability**

Any Asbestos Abatement Contractor that engages in any Asbestos Abatement Project that involves greater than ten (10) linear feet (three (3) meters) of pipe covered or coated with asbestos containing material or twenty five (25) square feet (three (3) square meters) of asbestos containing material used to cover or coat any surface other than pipe shall comply with the work practices contained in Subpart B.8 of these regulations and any additional work practice requirements contained in the asbestos abatement plan approved for that project by the Director of Health. Specific requirements for Category I and Category II Nonfriable ACM that is not Regulated Asbestos Containing Material (RACM) are contained in Sections B.8.8 through B.8.10 of these regulations.

### **B.8.2 General Requirements for Removal, Encapsulation and/or Enclosure of Regulated Asbestos Containing Material (RACM)**

- (a) Barriers to isolate contaminated from uncontaminated areas shall be constructed of polyethylene sheeting attached securely in place.
- (b) All surfaces shall be wet cleaned of dust or debris. Wet cleaning of contaminated items shall be performed if necessary. All movable objects shall be removed from the work area. All non-movable objects in the work area shall be covered with 6-mil polyethylene sheeting secured in place. All openings or penetrations between the work area and uncontaminated areas shall be sealed, including windows, doorways, elevator openings, corridor entrances, drains, ducts, grills, grates, diffusers and skylights.
- (c) Floor sheeting shall consist of two (2) layers of 6-mil polyethylene sheeting. Floor sheeting shall extend up sidewalls at least twelve (12) inches and be sized to minimize seams. No seams shall be located at wall/floor joints.
- (d) Wall sheeting shall consist of two (2) layers of 4-mil polyethylene sheeting. It shall be installed to minimize joints and shall extend beyond wall/floor joint at least twelve (12) inches. No seams shall be located at wall/wall joints.
- (e) A worker decontamination enclosure system, consisting of a clean room, shower room and

equipment room, each separated from each other and from the work area by airlocks and accessible through doorways protected with two (2) overlapping polyethylene sheets, shall be provided in accordance with OSHA 29 CFR 1926.58(j). Procedures for the utilization of this system shall be established which prevent contamination of areas outside the work area.

- (f) All HVAC equipment in or passing through the work area shall be shut down and locked out. All intake and exhaust openings, as well as any seams in system components shall be sealed with 6-mil polyethylene sheeting and/or tape. All system filters shall be replaced at the conclusion of the abatement and disposed of as asbestos waste. The ventilation system ductwork interiors shall be decontaminated whenever necessary.

(g) ***Posting***

- (1) Warning signs in accordance with OSHA 29 CFR 1926.58(k) shall be displayed at all approaches to any location where airborne fiber levels can be expected to exceed the Indoor Non-Occupational Air Exposure Standard established by Section A.3.1 of these regulations.
  - (2) Warning signs to advise the public of the location(s) within the building where any asbestos abatement activity is in progress shall be posted at all building entrances and at least one other conspicuous place per floor. These signs shall be of the same dimensions as the Warning/Danger signs required in Subparagraph B.8.2(g)(1) of these regulations.
  - (3) Warning signs in accordance with Section F.3.4 of these regulations shall be posted on vehicles used to transport Asbestos Containing Waste Materials during loading and unloading of the waste.
- (h) Clean-up procedures using HEPA vacuuming and wet cleaning techniques shall be performed following abatement. Wet cleaning shall be followed by HEPA vacuuming after surfaces have been allowed to dry. The sequence of wet cleaning and vacuuming shall be repeated at twenty four (24) hour intervals until no visible residue is observed in the work area.
  - (i) Negative pressure ventilation units with HEPA filtration, in sufficient number to provide one (1) workplace air change every fifteen (15) minutes, shall be operated continuously from the time of barrier construction through the time acceptable final clearance air-monitoring results are obtained. These units shall exhaust filtered air to the outside of the building. Filtered air shall not be exhausted to uncontaminated interior spaces.
  - (j) All Asbestos Containing Waste Materials shall be adequately wetted before being placed into containers for disposal.
  - (k) Asbestos Containing Waste Materials shall be placed in impermeable containers for disposal. Metal or fiber drums with locking-ring tops shall be used when asbestos waste contains sharp edged components. Double polyethylene bags of at least 6-mil thickness and which can be securely sealed may be used for waste. Large components or structural members may be removed intact and contained in leak-tight wrapping, equivalent to at least two (2) layers of 6-mil polyethylene sheeting, secured with tape for disposal.
  - (l) All containers, bags, drums and wrapped components shall be labeled so that labels have the appearance of or are constructed in accordance with USDOT 49 CFR 172, Subpart E and OSHA 29 CFR 1926.58(k). Each container, bag, drum or wrapped component shall also be labeled or tagged

with the name and license number of the asbestos abatement contractor generating the waste, as well as the asbestos abatement project number and location at which the waste was generated.

- (m) Storage of asbestos waste containers awaiting transport to an authorized disposal facility shall be in a secured location to prevent access by unauthorized personnel.
- (n) Transport and disposal of asbestos waste shall be in accordance with the provisions of Appendix D to 40 CFR 763, Subpart E and USDOT 49 CFR 173.1300.
- (o) Disposal of Asbestos Containing Waste Materials. All Asbestos Containing Waste Materials shall be deposited as soon as is practical by the waste generator at:
  - (1) A waste disposal site operated in accordance with the provisions of 40 CFR 61.154, or equivalent regulations promulgated by a state or local NESHAP designee; or
  - (2) An EPA-approved site that converts RACM and Asbestos Containing Waste Materials into nonasbestos (asbestos-free) material according to the provisions of 40 CFR 61.155.
- (p) Access to work areas shall be controlled and posting requirements shall remain in effect until compliance with the air exposure standard has been verified by procedures outlined below:
  - (1) Samples shall be collected and analyzed in accordance with the procedures specified by NIOSH Method 7400 (most current Revision) for asbestos fibers in air or equivalent method;
  - (2) Air volumes shall be sufficient to accurately determine fiber concentrations to 0.01 fibers/ cubic centimeter of air (f/cc) for fibers greater than five (5) microns in length or 300 nanograms per cubic meter. A minimum air volume of 1000 liters shall be sampled;
  - (3) Air sampling shall be conducted in representative locations with portable fans circulating air to simulate actual use conditions;
  - (4) An acceptable airborne fiber concentration, as established by clearance air monitoring shall not exceed 0.01 f/cc for fibers greater than five (5) microns in length or 300 nanograms per cubic meter; and
  - (5) Air sampling shall be conducted by a representative of the building owner who is not subject to the control or supervision of the Asbestos Abatement Contractor for the asbestos abatement plan.
  - (6) Notwithstanding the requirements contained in Subparagraphs B.8.2(p)(1)-(p)(5) above, control of access and posting requirements for buildings subject to the AHERA regulations shall remain in effect until compliance with Subparagraphs C.1.3(a)(5)-(8) of these regulations has been demonstrated.

### **B.8.3 *Specific Requirements for Removal of Regulated Asbestos Containing Material (RACM)***

- (a) All RACM shall be adequately wetted prior to removal. In addition, all RACM exposed during cutting and disjoining operations shall be adequately wet and all RACM shall be kept adequately wet during stripping operations.

- (b) Components shall be removed intact or in large sections whenever possible and carefully lowered to the floor.
- (c) RACM shall be removed in small sections and containerized when adequately wet. At no time shall material be allowed to accumulate or become dry. Structural components shall be adequately wetted prior to being contained in leak-tight wrapping for disposal.
- (d) Material shall not be dropped or thrown to the floor level. For materials located at heights greater than fifty (50) feet above the floor, a dust-tight, enclosed chute shall be constructed to transport removed material to containers on the floor. RACM may be dropped to a raised scaffold or containerized at elevated levels for disposal. Materials greater than fifteen (15) feet above the floor shall be dropped onto inclined chutes or scaffolding or containerized at elevated levels for eventual disposal.
- (e) A coating of encapsulating agent shall be applied to any porous surfaces that have been stripped of RACM to securely seal any residual fibers that may be present. The encapsulating agent should be chosen so as to be compatible with subsequent coverings.
- (f) RACM is not required to be stripped from large facility components such as reactor vessels, large tanks, and steam generators if the following requirements are met:
  - (1) The component is removed, transported, stored, disposed of, or reused without disturbing or damaging the RACM.
  - (2) The component is encased in a leak-tight wrapping.
  - (3) The leak-tight wrapping is labeled according to Section F.3.4 of these regulations during all loading and unloading operations and during storage.
- (g) When the temperature at the point of wetting is below 0°C (32°F):
  - (1) The Asbestos Abatement Contractor need not comply with the wetting provisions of Paragraphs B.8.3(a) and (c).
  - (2) The Asbestos Abatement Contractor shall remove facility components containing, coated with, or covered with RACM as units or in sections to the maximum extent possible.
  - (3) During periods when wetting operations are suspended due to freezing temperatures, the Asbestos Abatement Contractor must record the temperature in the area containing the facility components at the beginning, middle, and end of each workday and keep daily temperature records available for inspection by the Agency during normal business hours at the asbestos abatement project site. The Asbestos Abatement Contractor shall retain temperature records for at least two years.

**B.8.4 *Specific Requirements for Encapsulation of Regulated Asbestos Containing Material (RACM)***

- (a) All loose and hanging RACM shall be removed in accordance with Section B.8.3 of these regulations.

- (b) Filler material applied to gaps in existing material shall contain no asbestos, adhere well to the substrate and provide an adequate base for the encapsulating agent.
- (c) Encapsulants shall be applied using only airless spray equipment with nozzle pressure adjustable between four hundred (400) and fifteen hundred (1500) PSI and in accordance with the manufacturer's recommendations for a particular encapsulant.
- (d) Encapsulated materials shall be specially designated by signs, labels, color coding or some mechanism to warn individuals who may be required to disturb the material.
- (e) Encapsulants shall not be solvent-based or utilize a vehicle consisting of hydrocarbons.

**B.8.5 *Specific Requirements for Enclosure of Regulated Asbestos Containing Material (RACM)***

- (a) All areas of RACM shall be adequately wetted with wetting agents if they are to be disturbed during the installation of hangers, brackets or other portions of the enclosure.
- (b) All loose and hanging RACM shall be removed in accordance with Section B.8.3 of these regulations.
- (c) Non-asbestos containing substitutes shall be used to patch thermal insulation and fireproofing materials when required and where appropriate.
- (d) Enclosures for RACM shall be specially designated by signs, labels, color coding or some mechanism to warn individuals who may be required to disturb or enter the enclosure.

**B.8.6 *Specific Requirements for Demolition of Structures Containing Asbestos***

- (a) Any demolition of a structure or portion of a structure which contains structural members, building materials or structural components composed of or covered by RACM shall be preceded by a removal of all such materials in accordance with Sections B.8.2 and B.8.3 of these regulations. Said removal must be completed before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. Notwithstanding the foregoing, RACM need not be removed before demolition if:
  - (1) It is Category I nonfriable ACM that is not in poor condition and is not friable; or
  - (2) It is on a facility component that is encased in concrete or other similarly hard material and is adequately wet whenever exposed during demolition; or
  - (3) It was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, the material cannot be safely removed. If not removed for safety reasons, the exposed RACM and any asbestos contaminated debris must be treated as Asbestos Containing Waste Material and adequately wet at all times until disposed of; or
  - (4) It is Category II nonfriable ACM and the probability is low that the materials will become crumbled, pulverized, or reduced to powder during demolition.
- (b) For Emergency Asbestos Abatement Projects described in Paragraph A.4.2(c) of these regulations,

adequately wet the portion of the facility that contains RACM during the wrecking operation.

- (c) If a facility is demolished by intentional burning, all RACM, including Category I and Category II nonfriable ACM, must be removed in accordance with these regulations before burning.
- (d) In lieu of the requirements specified in Paragraphs B.8.2(b), (c), (d), and (f) and B.8.3(e) of these regulations, Asbestos Abatement Contractors engaging in demolition activities shall comply with the following:
  - (1) Prior to beginning a demolition project, all doors, windows, floor drains, vents and other openings to the outside of the building and to areas within the building that do not contain asbestos materials shall be sealed off with 6-mil polyethylene sheeting and waterproof tape or equivalent acceptable to the Agency.
  - (2) If a structure is to be partially demolished, HVAC equipment in the demolition area or passing through it but servicing areas of the building which will remain, shall be shut down and locked out and thoroughly sealed with 6-mil polyethylene sheeting and waterproof tape.
  - (3) If the building owner proposes not to conduct clearance air sampling following asbestos abatement activities conducted for demolition purposes, the building owner must submit written justification to the Agency which describes how personnel who must occupy the building prior to demolition will be protected.
  - (4) All other requirements of Sections B.8.2 and B.8.3 of these regulations, unless specifically deleted in Paragraph B.8.6(d) of these regulations, shall apply to demolition abatement activities.

**B.8.7 *General Requirements for Use of Glove Bags During Removal and/or Encapsulation of Regulated Asbestos Containing Material (RACM)***

- (a) In lieu of the requirements specified in Paragraphs B.8.2 (a), (b), (c), (d), (e), (f), (h) and (i) of these regulations, Asbestos Abatement Contractors using glove bags during removal and/or encapsulation of RACM shall comply with the following:
  - (1) All glovebags must remain stationary during asbestos abatement activities. The use of moving and/or sliding glove bag techniques are prohibited.
  - (2) Abatement projects which do not exceed the scope of Spot Repairs, as defined by these regulations, and which can be contained within one stationary glove bag may be performed in accordance with the glove bag procedures contained in 29 CFR 1926.58, Appendix G without the use of additional containment or negative pressure ventilation. The clearance air monitoring provisions of Paragraph B.8.2(p) of these regulations are waived unless there has been a breach of the glovebag containment.
  - (3) All other abatement projects that involve less than two hundred and sixty (260) linear feet [eighty (80) meters] of pipe covered or coated with RACM or one hundred and sixty (160) square feet [fifteen (15) square meters] of RACM used to cover or coat any surface other than pipe shall comply with the following requirements:

- (i) All doors, windows, floor drains, vents and other openings to the outside of the building and to areas within the building that do not contain asbestos materials shall be sealed off with 6-mil polyethylene sheeting and waterproof tape or equivalent acceptable to the Agency.
  - (ii) Floor sheeting shall consist of at least one (1) layer of 6-mil polyethylene sheeting. Floor sheeting shall be placed directly beneath the glove bag and shall extend at least ten (10) feet in all horizontal directions. If any wall is less than ten (10) feet from the glove bag, the floor sheeting shall be extended up that wall to at least the height of the glove bag.
  - (iii) HVAC equipment in the abatement area or passing through it but servicing other areas of the building shall be shut down and locked out and thoroughly sealed with 6-mil polyethylene sheeting and waterproof tape.
  - (iv) Negative pressure ventilation units with HEPA filtration shall be operated continuously from the time of barrier construction through the time acceptable final clearance air-monitoring results are obtained. These units shall exhaust filtered air to the outside of the building. Filtered air shall not be exhausted to uncontaminated interior spaces.
  - (v) Manufacturer's instructions concerning preparation, sealing, utilization and removal of glovebags must be followed unless the abatement plan and/or these regulations specify more restrictive requirements.
  - (vi) A worker decontamination enclosure system must be available immediately adjacent to the abatement area. A two chamber decontamination system may be used provided that shower facilities are otherwise available on the project site.
- (4) All abatement projects that involve more than two hundred and sixty (260) linear feet [eighty (80) meters] of pipe covered or coated with RACM or one hundred and sixty (160) square feet [fifteen (15) square meters] of RACM used to cover or coat any surface other than pipe shall comply with the following requirements:
- (i) All doors, windows, floor drains, vents and other openings to the outside of the building and to areas within the building that do not contain asbestos materials shall be sealed off with 6-mil polyethylene sheeting and waterproof tape or equivalent acceptable to the Agency.
  - (ii) Floor sheeting shall consist of at least one (1) layer of 6-mil polyethylene sheeting. Floor sheeting shall extend up sidewalls at least twelve (12) inches and be sized to minimize seams. No seams shall be located at wall/floor joints.
  - (iii) Wall sheeting shall consist of at least one (1) layer of 4-mil polyethylene sheeting. It shall be installed to minimize joints and shall extend from the wall/ ceiling joint to at least twelve (12) inches beyond the wall/floor joint. No seams shall be located at wall/wall joints.
  - (iv) HVAC equipment in the abatement area or passing through it but servicing other areas of the building shall be shut down and locked out and thoroughly sealed with 6-mil polyethylene sheeting and waterproof tape.

- (v) Negative pressure ventilation units with HEPA filtration shall be operated continuously from the time of barrier construction through the time acceptable final clearance air-monitoring results are obtained. These units shall exhaust filtered air to the outside of the building. Filtered air shall not be exhausted to uncontaminated interior spaces.
  - (vi) Manufacturer's instructions concerning preparation, sealing, utilization and removal of glovebags must be followed unless the abatement plan and/or these regulations specify more restrictive requirements.
  - (vii) A three chamber worker decontamination enclosure system, in accordance with 29 CFR 1926.58(j), must be available immediately adjacent to the abatement area.
- (5) All other requirements of Sections B.8.2 and B.8.3 of these regulations, unless specifically deleted in Paragraph B.8.7(a) of these regulations, shall apply to use of glove bags during removal and/or encapsulation of asbestos.
- (b) Any requests for additional waivers and/or alternative procedures must be submitted for Agency review and approval in accordance with Subpart B.11 of these regulations.

**B.8.8 *Specific Requirements for Removal of Category I Nonfriable ACM - Asphalt Roofing Products***

- (a) All surfaces shall be wet cleaned of dust or debris. All movable objects shall be removed from the roof area. All openings or penetrations on the roof area and at least one level below the roof area shall be sealed, including windows, doorways, drains, ducts, grills, grates, diffusers and skylights.
- (b) Floor/ground sheeting shall consist of at least two (2) layers of 6-mil polyethylene sheeting and shall be utilized as follows:
  - (1) If the roof is pitched, sheeting shall be applied to the first horizontal surface below the work area and shall extend from the edge of the building to at least ten (10) feet away from the building. All material being abated shall be confined to the roof area.
  - (2) If the roof is flat, sheeting shall extend at least ten (10) feet away from the perimeter of the work area. When the edge of the roof is less than ten (10) feet from the perimeter of the work area, sheeting shall be applied in accordance with Paragraph B.8.9(b)(1) such that the outer edge of the sheeting is at least ten (10) feet from the perimeter of the work area.
- (c) All HVAC intake or exhaust vents on the roof area and at least one level below the roof area shall be shut down and locked out. All intake and exhaust openings, as well as any seams in system components shall be sealed with 6-mil polyethylene sheeting and/or tape.
- (d) A minimum of a two chambered worker decontamination enclosure system shall be provided on site in accordance with OSHA 29 CFR 1926.58, Appendix G. Procedures for the utilization of this system shall be established which prevent contamination of areas outside the roof area.
- (e) Warning signs shall be posted in accordance with Paragraph B.8.2(g) of these regulations.
- (f) Category I Nonfriable ACM shall be removed in small sections and containerized when wet. At no time shall material be allowed to accumulate or become dry.

- (g) Category I Nonfriable ACM shall not be dropped or thrown to the floor/ground level. For roofs at heights greater than fifty (50) feet above the floor/ground, a dust-tight, enclosed chute shall be constructed to transport removed Category I Nonfriable ACM to containers on the floor/ground. Category I Nonfriable ACM may be dropped to a raised scaffold or containerized at elevated levels for disposal.
- (h) All Category I Nonfriable ACM shall be adequately wetted before being placed into containers for disposal. Disposal shall be in accordance with Paragraphs B.8.2(k) through B.8.2(o) of these regulations.
- (i) A coating of encapsulating agent shall be applied to any porous surfaces that have been stripped of Category I Nonfriable ACM to securely seal any residual fibers that may be present. The encapsulating agent should be chosen so as to be compatible with subsequent coverings.
- (j) Clean-up procedures using HEPA vacuuming and wet cleaning techniques shall be performed following abatement.
- (k) Personnel air monitoring of Asbestos Abatement Workers, which demonstrates compliance with the provisions of OSHA 29 CFR 1926.58(f), may be used in lieu of the clearance air sampling requirements contained in Paragraph B.8.2(p) of these regulations.

## ***B.9 [DELETED]***

## ***B.10 WORK PRACTICE REQUIREMENTS - SPOT REPAIRS***

### ***B.10.1 Applicability***

Individuals performing spot repairs must be certified as a competent person in accordance with Subpart D.2 of these regulations and shall take reasonable precautions to prevent the release of asbestos fibers to the environment.

B.10.2 The reasonable precautions required by Section B.10.1 of these regulations shall include, but are not limited to those outlined in Appendix G to OSHA 29 CFR 1926.58. Specifically:

- (a) Barriers constructed shall be adequate to contain asbestos fibers released within the work area.
- (b) Procedures shall be established to prevent asbestos contamination in all areas outside the work area(s).
- (c) All asbestos containing material shall be wetted prior to removal and kept wet until containerized.
- (d) HEPA vacuum equipment and wet cleaning techniques shall be used to clean up the work area following abatement until there is no visible residue.
- (e) Asbestos waste shall be packaged in impermeable containers such as polyethylene sheeting, bags and/or fiber or metal drums and shall be labeled so that labels have the appearance of or are constructed in accordance with USDOT 49 CFR 172, Subpart E and either OSHA 29 CFR 1926.58(k). Each container, bag, drum or wrapped component shall also be labeled or tagged with

the name and license number of the asbestos abatement contractor generating the waste, as well as the asbestos abatement project number and location at which the waste was generated.

- (f) Transport and disposal of asbestos waste shall be in accordance with the provisions of Appendix D to 40 CFR 763, Subpart E and USDOT 49 CFR 173.1300.

### **B.10.3 Documentation**

- (a) Documentation of all spot repairs must be maintained with the permanent building records. This documentation shall include, as a minimum, the identity of the competent person performing the spot repair, the date the spot repair was performed, the specific location that was repaired, the methods used to perform the spot repair, the quantity of asbestos that was involved in the spot repair and receipts for the disposal of any asbestos waste. All recordkeeping shall be in accordance with the requirements of OSHA 29 CFR 1926.58(n).
- (b) Exposure monitoring shall be in accordance with the provisions of OSHA 29 CFR 1926.58(f).

## **B.11 ALTERNATIVE PROCEDURES**

The Agency may, on a case-by-case basis, approve an alternative procedure for control of emissions from an asbestos abatement project provided that the building owner submits the alternative procedure to the Agency in writing and demonstrates to the satisfaction of the Agency that compliance with the prescribed procedures is not practical or not feasible or that the proposed alternative procedures provide equivalent control of asbestos. The Agency, following its review, may approve an alternative procedure if it determines that it will minimize the emission of asbestos.

# **RULES AND REGULATIONS FOR ASBESTOS CONTROL**

[R23-24.5-ASB]

## **PART C**

### **ABATEMENT (MANAGEMENT) PLANS AND OWNER RESPONSIBILITIES**

JANUARY 1986

***AS AMENDED:***

AUGUST 1986

OCTOBER 1988

JUNE 1990

FEBRUARY 1992

JUNE 1996(E)

OCTOBER 1996(E)

DECEMBER 1996

**PART C**  
**ABATEMENT (MANAGEMENT) PLANS AND OWNER RESPONSIBILITIES**

**C.1.1 General Requirements**

- (a) This Part applies to Asbestos Abatement (Management) Plans submitted pursuant to Subpart A.4 of these regulations. All asbestos abatement projects conducted at any facility, with the exception of spot repairs as defined in these regulations, must be conducted in accordance with an Asbestos Abatement (Management) Plan which has been submitted by the building owner and approved by the Agency.
- (b) Asbestos Abatement (Management) Plans shall be submitted on forms provided by the Agency. Said forms shall be signed by the building owner or legally authorized agent. Consultants retained to prepare Asbestos Abatement (Management) Plans are not authorized to sign these forms.
- (c) An Asbestos Abatement (Management) Plan for any school or school building subject to the AHERA regulations must be prepared by a consultant certified for the proposed scope of abatement work in accordance with Subparagraphs D.4.2(b)(5) and/or D.4.2(b)(6) of these regulations, as appropriate.
- (d) An Asbestos Abatement (Management) Plan for any public or private building, other than schools or school buildings subject to the AHERA regulations, must be prepared by the building owner, a full time employee of the building owner or an Asbestos Project Designer certified in accordance with Subparagraph D.4.2(b)(5) of these regulations.

**C.1.2 Contents of an Abatement (Management) Plan**

- (a) An Asbestos Abatement (Management) Plan submitted in accordance with Subpart A.4 of these regulations must include all the information required by the forms provided by the Agency.
- (b) An Asbestos Abatement (Management) Plan must include an interim Operations and Maintenance Program that will be implemented until the asbestos containing material can be abated. Furthermore, any Asbestos Abatement (Management) Plan which does not include complete removal of all asbestos containing material in the area(s) being abated must also include a long-term Operations and Maintenance Program for the remaining asbestos containing material.
- (c) An Operations and Maintenance Program must address, as a minimum, the following items:
  - (1) Action(s) to be taken when the monitoring program discovers asbestos containing material in need of abatement;
  - (2) Monitoring the physical conditions of the asbestos containing materials in accordance with Part E of these regulations, including a schedule for monitoring and methods for documentation of findings;
  - (3) Educating the building staff and occupants regarding the presence and location of asbestos containing material;
  - (4) Procedures for alerting outside service personnel and others to the presence and location of asbestos containing material, including the Warning Label provisions of 40 CFR 763.95;

- (5) Steps to be taken which will minimize the likelihood of asbestos fiber release. (e.g., Modification of maintenance activities, spot repairs, etc.); and
- (6) Steps to be taken which will minimize the potential of human exposure to asbestos (e.g., Limit access to areas known to contain friable asbestos material in deteriorating condition.)

### **C.1.3 Post Abatement Requirements**

#### **(a) Clearance Air Sampling**

Clearance air sampling for all buildings subject to the AHERA regulations shall be conducted in accordance with Subparagraphs C.1.3(a)(5)-(a)(8). Clearance air sampling for all other buildings shall be conducted in accordance with Subparagraphs C.1.3(a)(1)-(a)(4).

- (1) Clearance air sampling shall be conducted and reviewed for compliance with the Indoor Non-Occupational Air Exposure Standard established by Section A.3.1 of these regulations prior to dismantling the containment barriers and prior to reoccupancy of the abated area.
- (2) Clearance air samples shall be collected by a representative of the building owner in accordance with the requirements of Section B.8.2(p) of these regulations. This representative shall be an independent agent who is not subject to the Asbestos Abatement Contractor's control or supervision. All such clearance air samples shall only be analyzed by an Asbestos Analytical Service certified for this activity in accordance with Subpart D.3 of these regulations.
- (3) The building owner shall review the results of clearance air sampling prior to dismantling the containment barriers and prior to reoccupancy of the abated area. If sampling results exceed the Indoor Non-Occupational Air Exposure Standard established by Section A.3.1 of these regulations, the area shall be recleaned in accordance with Part B of these regulations and the clearance air sampling shall be repeated. Cleaning and resampling shall be repeated at no less than twenty-four (24) hour intervals until the abated area is in compliance with the Indoor Non-Occupational Air Exposure Standard established by Section A.3.1 of these regulations.
- (4) Within three (3) working days of receipt of clearance air sampling results for an abated area, the building owner shall notify the Agency either by telephone or in writing of the completion of the asbestos abatement project and the results of the clearance air sampling. The building owner shall also submit to the Agency a certified copy of results of all clearance air sampling conducted in the abatement area and each area adjacent to the abatement area indicating each area is in compliance with the Indoor Non-Occupational Air Exposure Standard established by Section A.3.1 of these regulations.
- (5) Clearance air sampling shall be conducted in accordance with 40 CFR 763.90(i)(2)-(i)(8) and reviewed for compliance with the average asbestos concentration established by 40 CFR 763.90(i)(3)-(i)(7) prior to dismantling the containment barriers described in the approved asbestos abatement plan and prior to reoccupancy of the abated area.
- (6) Clearance air samples shall be collected by a representative of the building owner in accordance with the requirements of 40 CFR 763.90(i)(2). This representative shall be an independent agent who is not subject to the Asbestos Abatement Contractor's control or supervision. All such clearance air samples shall only be analyzed by an Asbestos Analytical Service certified for this

activity in accordance with Subpart D.3 of these regulations. Notwithstanding the preceding, the requirement to use only Agency certified laboratories for samples analyzed via Transmission Electron Microscopy (TEM) is waived until such time as the Agency has established requirements for the certification of such facilities.

- (7) The building owner shall review the results of clearance air sampling prior to dismantling the containment barriers and prior to reoccupancy of the abated area. If sampling results exceed the average asbestos concentration established by 40 CFR 763.90(i)(3)-(i)(7), the area shall be recleaned in accordance with Part B of these regulations and the clearance air sampling shall be repeated. Cleaning and resampling shall be repeated at no less than twenty-four (24) hour intervals until the abated area is in compliance with the average asbestos concentration established by 40 CFR 763.90(i)(3)-(i)(7).
  - (8) Within three (3) working days of receipt of clearance air sampling results for an abated area, the building owner shall notify the Agency either by telephone or in writing of the completion of the asbestos abatement project and the results of the clearance air sampling. The building owner shall also submit to the Agency a certified copy of results of all clearance air sampling conducted in the abatement area and each area adjacent to the abatement area indicating each area is in compliance with the Indoor Non-Occupational Air Exposure Standard established by Section A.3.1 of these regulations and/or the average asbestos concentration established by 40 CFR 763.90(i)(3)-(i)(7), as appropriate.
- (b) ***Confirmation of Disposal of Asbestos***

For all Asbestos Containing Waste Material transported off the Asbestos Abatement Project Site, the Asbestos Abatement Contractor shall:

- (1) Maintain waste shipment records, using the most current revision of Agency Form ASB-23 to provide the following information:
  - (i) The name, address, and telephone number of the Asbestos Abatement Contractor.
  - (ii) The approximate quantity in cubic yards (cubic meters).
  - (iii) The name and telephone number of the disposal site operator.
  - (iv) The name and physical site location of the disposal site.
  - (v) The date transported.
  - (vi) The name, address, and telephone number of the transporter(s).
  - (vii) A certification that the contents of this consignment are fully and adequately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.
- (2) Provide a properly completed copy of Agency Form ASB-23 to the disposal site owners or operators at the same time as the Asbestos Containing Waste Material is delivered to the waste disposal site.

- (3) Provide the building owner with the original (white) copy of Agency Form ASB-23 signed by the owner or operator of the designated disposal site. Said original copy shall be transmitted to the Agency by the building owner within five (5) working days of receipt.
- (4) For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated disposal site, is not received by the Asbestos Abatement Contractor within thirty-five (35) days of the date the waste was accepted by the initial transporter [i.e. the date the waste left the abatement project site], contact the transporter and/or the owner or operator of the designated disposal site to determine the status of the waste shipment.
- (5) Report in writing to the Agency if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the Asbestos Abatement Contractor within forty-five (45) days of the day the waste was accepted by the initial transporter. Include in the report the following information:
  - (i) A copy of the waste shipment record for which a confirmation of delivery was not received; and
  - (ii) A cover letter signed by the Asbestos Abatement Contractor explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.
- (6) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least two (2) years.

#### **C.1.4 *Revocation of Agency Approval for an Asbestos Abatement (Management) Plan***

- (a) The Agency may revoke any Asbestos Abatement (Management) Plan approval issued pursuant to these regulations in the event that the granting of said approval was based upon statements which prove to be false or based on misrepresentation of fact.
- (b) Any aggrieved party shall have the right to a hearing on any such revocation. Said request for a hearing shall be in writing and shall be made within ten (10) of notification of said revocation.

#### **C.1.5 *Expiration of Agency Approval for an Asbestos Abatement (Management) Plan***

- (a) An Asbestos Abatement (Management) Plan approval issued by the Agency pursuant to these regulations shall become invalid unless the work authorized by said approval shall have been commenced within six (6) months after its issuance and been completed within twelve (12) months after its issuance.
- (b) The six (6) month limit provided for by Paragraph C.1.5(a) of these regulations may be extended, for cause, up to an additional ninety (90) days. Written justification for such an extension must be submitted for Agency review prior to the approval expiration date. All Agency approvals for such an extension must be in writing.
- (c) The six (6) month limit provided for by Paragraph C.1.5(a) of these regulations shall not apply to any suspension or abandonment of an Agency approved abatement project when the suspension or abandonment is due to a court order prohibiting such work as authorized by said approval.

**C.1.6 Asbestos Abatement (Management) Plan Fees**

- (a) The application fee must accompany the Asbestos Abatement (Management) Plan and shall be in the form of a check made payable to General Treasurer, State of Rhode Island. This fee is non-refundable and will not be returned if the Asbestos Abatement (Management) Plan is denied or otherwise not approved by the Agency. The application fee also includes the inspection fee, authorized by Section 23-24.5-7(d) of the General Laws, for any inspections of said Asbestos Abatement Project which are deemed necessary by the Agency.
- (b) The application fee is based on the number of NESHAP units of ACM involved in the abatement project. One (1) NESHAP unit equals two hundred and sixty (260) linear feet [eighty (80) meters] of ACM or one hundred and sixty (160) square feet [fifteen (15) square meters] of ACM or thirty five (35) cubic feet [one (1) cubic meter] of ACM off facility components where the length or area could not be measured previously. If any combination of linear, square or cubic feet is involved, the sum of the fractions must be used to determine the actual number of NESHAP units involved in the asbestos abatement project. The application fees are as follows:

<i>#OF NESHAP UNITS</i>	<i>FEE</i>
Operations & Maintenance	\$75
Up to One (1) Unit	\$75
Between One (1) & Ten (10) Units	\$300
Between Ten (10) & Fifty (50) Units	\$600
Over Fifty (50) Units	\$900

- (c) Any amendments to the Asbestos Abatement (Management) Plan which increase the scope of work into a higher fee category will be reassessed. The difference in the two fees shall be submitted to the Agency in the form of a check made payable to General Treasurer, State of Rhode Island.
- (d) Any amendments to the Asbestos Abatement (Management) Plan which request additional waivers and/or variances under the provisions of Subpart B.11 of the regulations will be assessed a flat fee of one hundred and fifty dollars (\$150). Said fee shall be submitted to the Agency in the form of a check made payable to General Treasurer, State of Rhode Island. However, said fee will be waived if the amendment(s) to the Asbestos Abatement (Management) Plan also include a request for an increase in the scope of work which would result in the fee difference in accordance with Paragraph C.1.6(c) of these regulations being assessed.
- (e) All other amendments to the Asbestos Abatement (Management) Plan, including those involving only minor changes that can receive Agency approval over the telephone, will not be charged a fee.
- (f) ***Waiver and/or exemption of Asbestos Abatement (Management) Plan Fees:***

The application fee shall be waived for any Asbestos Abatement (Management) Plan which is eligible for loans or grants in accordance with the provisions of Section 23-24.5-19 of the Act and/or any

rules or regulations promulgated by the Rhode Island Department of Administration pursuant to the authority conferred by Section 23024.5-19 of the Act. State agencies shall be exempt from application fees associated with the submittal of Asbestos Abatement (Management) Plans.

**C.1.7 *Recordkeeping Requirements for AHERA Management Plans***

All records required by 40 CFR 763.94 for school buildings subject to the AHERA regulations shall be maintained in a centralized location in the administrative office of both the school building and the Local Education Agency (LEA) and shall be considered a part of the AHERA management plan(s) for all such buildings. These records shall be maintained until their disposal is specifically authorized in writing by the Agency unless a shorter retention period is specifically authorized by 40 CFR 763.94 for that type of record.

# **RULES AND REGULATIONS FOR ASBESTOS CONTROL**

[R23-24.5-ASB]

## **PART D**

### **CERTIFICATION OF TRAINING COURSES, COMPETENT PERSONS, ANALYTICAL SERVICES AND CONSULTANTS**

JANUARY 1986

*AS AMENDED:*  
AUGUST 1986  
OCTOBER 1988  
JUNE 1990  
FEBRUARY 1992

**PART D**  
**CERTIFICATION OF TRAINING COURSES, COMPETENT PERSONS,**  
**ANALYTICAL SERVICES AND CONSULTANTS**

**D.1 CERTIFICATION OF ASBESTOS ABATEMENT TRAINING COURSES**

**D.1.1 General Requirement**

- (a) Training courses offered and conducted for the purpose of meeting the training requirements of these regulations must be certified in accordance with this Subpart. Applicants, in order to obtain certification for a training course, must submit an application which demonstrates compliance with the requirements of this Subpart.
- (b) Notwithstanding the requirements of Paragraph D.1.1(a), initial or annual review training courses for Asbestos Inspectors, Asbestos Project Designers or Asbestos Management Planners that are currently certified by other jurisdictions in accordance with the EPA Model Accreditation Program will be considered as having been certified in accordance with this Subpart.
- (c) The criteria for successful completion of a required training course must include obtaining a passing score on the final course examination, unless the certified training course has been specifically authorized in writing by the Agency to use an alternative method of determining successful completion.

**D.1.2 Application for Certification of Training Courses**

An applicant for certification of any asbestos abatement training course shall submit the following information for Agency review at least forty five (45) days prior to the first scheduled course date:

- (a) The name and address of the person(s), consulting firm, union, trade association, governmental agency, educational institution or other entity which proposes to conduct the training course, background information about the course sponsors, the name of the responsible individual and his/her telephone number.
- (b) The type of course(s) for which certification is being requested.
- (c) A detailed outline of the course curriculum including the amount of time allotted to each topic, the name and training/qualifications of the individual(s) responsible for developing the instruction program for each topic and the name of the instructor(s) for each topic.
- (d) A description of the teaching methods to be used to present each topic including, where appropriate, lectures, discussions, demonstrations and audio-visual materials. When applicable, include the name, producer and date of production of audio-visual materials to be used.
- (e) Copies of written materials to be distributed. All materials submitted in conjunction with the application shall be typewritten or machine printed.
- (f) Evidence demonstrating that the applicant has employed or contracted as instructors, either on a full time or temporary basis, a sufficient number of persons (a minimum of two) who meet the training and experience criteria contained in Section D.1.3 of these regulations. Resumes describing special

training and education and/or prior experience may be submitted for the purpose of providing this evidence.

- (g) A list of the types, brand names and quantities of respirators to be used to demonstrate and fit test or flow test respirators.
- (h) A description of the type and quantity of protective clothing to be used during practice exercises and demonstrations.
- (i) A description of the materials to be used for hands-on practice exercises and demonstrations, including hand tools, ladders, plastic sheeting and other barrier construction supplies, negative air filtration units, water spray devices and decontamination facilities.
- (j) A detailed description of the site of the training course including address where demonstrations and hands-on practice exercises will be conducted.
- (k) Any restrictions on attendance (language, degree of literacy required, union or group association, etc.).
  - (1) Oral final examinations are not permitted unless specifically requested by the applicant and authorized in writing by the Agency. The applicant must specifically identify the circumstances under which an oral final examination will be used. If oral final examinations are to be given in a language other than English, the applicant must outline the procedure used to ensure the integrity of the examination process.
  - (2) Only Initial and Annual Review courses for Asbestos Abatement Workers and Competent Persons may be presented in a foreign language. Where such foreign language courses are offered, the applicant must translate all of the course materials into the foreign language and submit them to the Agency. The applicant must certify to the Agency that the translations have been adequately checked for accuracy and provide the qualifications of the person(s) making the translation.
  - (3) Written final examinations must be administered in the same language in which the other course materials were presented.
  - (4) Agency approval of an English language Asbestos Abatement Worker Initial or Annual Review course does not constitute approval to offer that course in any other language. Each foreign language version of an Asbestos Abatement Worker Initial or Annual Review course must receive specific Agency approval. Agency approval to present Asbestos Abatement Worker Initial or Annual Review courses in a foreign language must be issued prior to its initial offering and will not be retroactive.
- (l) Instructor to student ratio for the hands-on practice exercises and demonstrations. Written justification must be submitted for student to instructor ratios greater than ten to one (10:1).
- (m) Copies of typical final examination questions/answers, including the typical number and distribution of questions among the various subject areas, as well as the minimum grade which must be obtained for a trainee to successfully complete the course. Final examinations for Asbestos Inspector, Management Planner and Asbestos Abatement Worker training courses must consist of at least fifty (50) multiple choice questions. Final examinations for Abatement Project Designer and Asbestos

Abatement Contractor/Site Supervisor training courses must consist of at least one-hundred (100) multiple choice questions. Final examinations for all Annual Review and Competent Person training courses, as well as any other Agency approved training course containing up to fourteen (14) instructional hours, must consist of at least fifteen to twenty-five (15-25) multiple choice questions, depending on the length of the training course. The minimum passing grade must be at least seventy percent (70%).

- (n) The Agency shall be immediately notified in writing of any significant changes in any information submitted by the applicant. These changes may not be implemented until they have been approved by the Agency.
- (o) Appropriate course content and duration, as defined by Section D.1.8 of these regulations.
- (p) The mechanism(s) that the applicant will use to ensure that all prospective students have successfully completed the appropriate initial training course(s) before being allowed to enroll in the respective annual review course(s), and that all prospective students have successfully completed any prerequisites for an initial training course (e.g., Inspector is required for Management Planner).

#### **D.1.3 *Criteria for Instructors***

To be eligible for certification of any training course, two (2) or more course instructors shall be employed. A sufficient number of instructors shall be hired to ensure that all of the education and experience criteria for instructors set forth below are met:

- (a) An instructor shall have experience in both the design, field performance and evaluation of air monitoring programs and the design and implementation of respiratory protection programs.
- (b) To qualify to teach the sections of the course concerning the health effects of asbestos, a qualified health professional shall be employed.
- (c) To qualify to teach the sections of the course covering the hands-on practice sessions, an instructor shall be employed with experience as an asbestos abatement contractor or experience as an on-site foreman or supervisor of asbestos abatement workers. This person shall have had direct experience in all phases of asbestos abatement work including work area preparation, construction of barriers, the use of personal protective equipment, engineering controls, work practices, clean-up, disposal and decontamination.
- (d) An instructor shall have experience in designing, implementing and evaluating either employee educational programs in occupational health and safety or vocational educational programs.

#### **D.1.4 *Recordkeeping Requirements***

The training entity shall maintain documentation of each certified course offered which shall include as a minimum: type of course, date(s) and location(s) of course, class roster and results of any final examination/evaluation, as well as the unique certificate number, for each student enrolled. The training entity shall retain all required records for a period of at least ten (10) years and shall make this information available to the Agency upon request.

#### **D.1.5 *Suspension or Revocation of Certification***

The Agency may suspend or revoke any certification issued under this Subpart for:

- (a) Submitting false information on an application;
- (b) Failure to comply with these regulations;
- (c) Incompetence; or
- (d) Any good cause within the meaning and purpose of these regulations or the Act.

**D.1.6 *Asbestos Training Course Fees and Issuance/Renewal of Certificates***

- (a) An application fee of seventy-five dollars (\$75) per course must accompany the application and shall be in the form of a check made payable to General Treasurer, State of Rhode Island. This fee is non-refundable and will not be returned if the application is denied or otherwise not approved by the Agency.
- (b) Pursuant to the provisions of Section 23-24.5-14(c) of the General Laws of Rhode Island, 1956, as amended, the Agency shall grant a certificate to an Asbestos Training Course which meets the certification requirements set forth in these regulations, and upon submission of the certification fee shown in Table 1 below, made payable by check to the General Treasurer, State of Rhode Island. Said certificate shall expire two (2) years from the date of issuance unless sooner suspended or revoked. Said certificate may be renewed every two (2) years in accordance with the provisions of Section D.1.7 of these regulations and upon payment of the renewal application fee of seventy-five dollars (\$75) and the appropriate certification fee shown in Section D.1.6(c) below, made payable by check to the General Treasurer, State of Rhode Island.
- (c) The certification fees are as follows:

<b>TYPE OF COURSE</b>	<b>CERTIFICATION FEE</b>
38 Hour Initial Asbestos Abatement Worker/Site Supervisor Training	\$750
32 Hour Initial Asbestos Abatement Worker Training	\$600
24 Hour Initial Asbestos Inspection Services Training	\$450
24 Hour Initial Asbestos Project Designer Training	\$450

<b>TYPE OF COURSE</b>	<b>CERTIFICATION FEE</b>
16 Hour Initial Asbestos Management Planner Training	\$300
14 Hour Competent Person Training	\$300
8 Hour Competent Person Annual Review	\$225
8 Hour Asbestos Inspection Services/ Management Planner Annual Review	\$225
6 Hour Initial Asbestos Abatement Site Supervisor Training	\$225
8 Hour Asbestos Abatement Worker/ Site Supervisor Annual Review	\$225
8 Hour Asbestos Project Designer Annual Review	\$225
4 hour Asbestos Inspection Services Annual Review	\$125
4 hour Asbestos Management Planner Annual Review	\$125

- (d) All amendments which request modification of course content and/or require evaluation of additional training facilities will be assessed a fee of forty dollars (\$40). Said fee shall be submitted to the Agency in the form of a check made payable to General Treasurer, State of Rhode Island.
- (e) All other amendments to Asbestos Training Courses will not be charged a fee.
- (f) ***Waiver of Asbestos Training Course Fees.*** The application and certification fees shall be waived for any Asbestos Training Course which is conducted by a Rhode Island state college or university and/or any agency of the State of Rhode Island or its political subdivisions.

**D.1.7 *Renewal of Certification***

- (a) Requests for renewal of certifications issued under this Subpart must contain all the information requested by Section D.1.2 of these regulations without reference to any previously submitted material.
- (b) In any case in which the responsible individual of a training course with complete certification, not less than 30 days prior to expiration of its existing complete certification, has filed an application in proper form for renewal, such existing complete certification shall not expire until final action on the application has been taken by the Agency.

**D.1.8 *Certified Training Courses - Types, Content and Duration***

- (a) The initial training course for all Asbestos Abatement Workers and Site Supervisors shall conform to

the content specified by Paragraph B.3.3(a) of these regulations, shall consist of at least thirty two (32) hours over a period of at least four (4) days. The course shall also provide each participant with a minimum of six (6) hours conducting practice exercises which demonstrate that the participant can:

- (1) Properly perform all aspects of asbestos abatement work; and
  - (2) Prevent unnecessary asbestos exposure to the general public and co-workers by properly constructing and maintaining temporary plastic barriers, by properly using respiratory protection, protective clothing and other protective equipment, and by using proper work area clean-up, decontamination and waste disposal techniques.
- (b) The additional training for all Asbestos Abatement Site Supervisors shall conform to the content specified by Paragraph B.3.3(b) of these regulations and shall consist of at least six (6) hours of instruction.
  - (c) The annual review course for all Asbestos Abatement Workers and Site Supervisors shall consist of the one (1) day (at least eight (8) hours of instruction) training course specified by Section B.3.4 of these regulation.
  - (d) The initial training course for Competent Persons required by Section D.2.1 of these regulations shall consist of at least fourteen (14) hours of instruction and must contain the material required by Paragraph D.2.2(a) of these regulations.
  - (e) The initial training for all individuals providing Asbestos Inspection Services shall consist of a three (3) day (twenty four (24) hours in duration) training course. Lectures, demonstrations and field exercise(s) shall provide, at a minimum, all of the information required for initial training of Inspectors by the EPA Model Contractor Accreditation Plan (52 FR 15875-15882, 30 April 1987) or as subsequently amended by the EPA. The initial training course must also include specific training in the asbestos assessment protocol contained in Part E of these regulations.
  - (f) The annual review course for all individuals providing Asbestos Inspection Services shall consist of the one-half (1/2) day (at least three (3) hours of instruction) training course which shall provide, at a minimum, an adequate review of the topics specified by Paragraph D.1.8(e) of these regulations, updated information on state-of-the-art procedures and equipment, and reviews of regulatory changes and interpretations. Specific topic coverage may be requested by the Agency.
  - (g) The initial training for all individuals providing Asbestos Project Designer Services shall consist of a three (3) day (twenty four (24) hours in duration) training course. Lectures, demonstrations and field trip(s) shall provide, at a minimum, all of the material required for initial training of Abatement Project Designers by the EPA Model Contractor Accreditation Plan (52 FR 15875-15882, 30 April 1987) or as subsequently amended by the EPA. The thirty eight (38) hour Asbestos Abatement Worker/Site Supervisor training course(s) specified by Paragraphs B.3.3(a) and B.3.3(b) of these regulations may also be used to fulfill this requirement if a module on "key elements of contract specifications" is included in the course(s).
  - (h) The annual review course for all individuals providing Asbestos Project Designer Services shall consist of the one (1) day (at least six (6) hours of instruction) training course which shall provide, at a minimum, an adequate review of the topics specified by Paragraph D.1.8(g) of these regulations, updated information on state-of-the-art procedures and equipment, and reviews of regulatory

changes and interpretations. Specific topic coverage may be requested by the Agency.

- (i) The initial training for all individuals providing Asbestos Management Planner Services shall consist of both the three (3) day (twenty four (24) hours in duration) training course for Asbestos Inspectors specified by Paragraph D.1.8(e) of these regulations and an additional two (2) day (sixteen (16) hours in duration) training course specifically for Asbestos Management Planners. This additional training course shall consist of lectures, demonstrations and field trip(s) and shall provide, at a minimum, all of the material required for initial training of Asbestos Management Planners by the EPA Model Contractor Accreditation Plan (52 FR 15875-15882, 30 April 1987) or as subsequently amended by the EPA.
- (j) The annual review for all individuals providing Asbestos Management Planner Services shall consist of both the one-half (1/2) day (at least three (3) hours of instruction) training course for Asbestos Inspectors specified by Paragraph D.1.8(e) of these regulations and an additional one-half (1/2) day (at least three (3) hours of instruction) training course specifically for Asbestos Management Planners. This additional training course shall provide, at a minimum, an adequate review of the topics specified by Paragraph D.1.8(i) of these regulations, updated information on state-of-the-art procedures and equipment, and reviews of regulatory changes and interpretations. Specific topic coverage may be requested by the Agency.
- (k) The annual review course for Competent Persons required by Paragraph D.2.5(a) of these regulations shall consist of at least eight (8) hours of instruction and must contain the material required by paragraph D.2.2(b) of these regulations. Any annual review course that proposes to include the proficiency test provided for by Paragraph D.2.2(c) of these regulations must also submit a detailed description of how said proficiency test will be administered. This description shall include, as a minimum, the skills that will be evaluated, the types of evaluations that will be conducted, the name(s) and qualifications of the instructor(s) that will conduct the evaluation, the degree of proficiency that will be necessary to pass this evaluation, and additional training that will be required before a trainee can be retested after failing any portion of the evaluation.

## ***D.2 CERTIFICATION OF COMPETENT PERSONS***

### ***D.2.1 General Requirement***

- (a) Any designated public employee, designated public maintenance person, maintenance worker in the private sector, teacher and/or parent representative who desires to be certified as competent in the basic aspects of asbestos inspections and abatement process evaluations, as defined by the Act, or to perform spot repairs within the jurisdiction of the applicant's agency, municipality or building(s) must file an application with the Agency which includes evidence of successful completion of a certified training course of at least fourteen (14) hours duration (exclusive of lunch and break times) as outlined in Section D.2.2 of these regulations.
- (b) Maintenance personnel in the private sector, including but not limited to plumbers, electricians and oil burner repairmen, who perform asbestos abatement activities that are subject to these regulations in conjunction with their primary profession must be certified as a Competent Person-Spot Repair in accordance with Paragraph D.2.1(a) of these regulations.

### ***D.2.2 Content of Competent Person Training Courses***

- (a) The initial training course for Competent Person shall consist of at least fourteen (14) hours of instruction and shall provide, at a minimum, information on the following topics:
  - (1) The training for maintenance and custodial employees required by 40 CFR 763.92(a)(1) and (a)(2);
  - (2) The requirements, procedures and standards established by these regulations, particularly those sections dealing with spot repairs (Subpart B.10) and the inspection and evaluation criteria for asbestos in public buildings (Part E); and
  - (3) At least four (4) hours of hands-on instruction in state-of-the-art spot repair techniques.
- (b) The yearly review course shall consist of at least eight (8) hours of instruction and shall provide, at a minimum, information on the following topics:
  - (1) An adequate review of the topics outlined in Paragraph D.2.2(a) of these regulations;
  - (2) Updated information on state-of-the-art procedures and equipment;
  - (3) Reviews of regulatory changes and interpretations;
  - (4) Specific topic coverage as requested by the Agency; and
  - (5) At least four (4) hours of hands-on instruction in state-of-the-art spot repair techniques.
- (c) Notwithstanding the requirements of Subparagraph D.2.2(b)(5) above, certified annual review courses may include a mechanism for trainees to demonstrate proficiency in the hands-on portion of said course, in lieu of repeating the four (4) hours of hands-on instruction.

**D.2.3 *Suspension or Revocation of Competent Person Certification and/or Imposition of Civil Penalties***

- (a) The Agency may suspend or revoke any Competent Person certification issued under this Subpart for:
  - (1) Failure to maintain appropriate proficiency in the required areas.
  - (2) Incompetence and/or negligence.
  - (3) Submitting false information on an application.
  - (4) Failure to comply with these regulations; or
  - (5) Any good cause within the meaning and purpose of these regulations or the Act.
- (b) ***Civil Penalties***

Any person certified only for spot repairs who undertakes any asbestos abatement project larger than the size limits for a Spot Repair as defined by these regulations or who does not follow the work practices for Spot Repairs contained in Section B.10.2 of these regulations shall be subject to a fine

of no more than five hundred dollars (\$500) per violation. This provision shall also be applicable to the employers of said persons.

#### **D.2.4 *Expiration of Certification***

- (a) Unless sooner revoked or suspended by the Agency in accordance with the provisions of Section D.2.3 of these regulations, certification as a Competent Person shall expire one (1) year from the date of the issuance of the certification.
- (b) Notwithstanding the requirements of Paragraph D.2.4(a) above, Competent Person certifications issued prior to 1 August 1990 shall expire on the date indicated on said certification. However, individuals holding said Competent Person certifications are subject to the annual review requirements contained in Paragraph D.2.2(b) of these regulations.

#### **D.2.5 *Renewal of Certification***

- (a) Requests for renewal of certifications issued under this Subpart must contain evidence that the applicant has successfully completed a certified annual review course, as described in Paragraph D.2.2(b) of these regulations.
- (b) In any case in which a Competent Person, not less than 30 days prior to expiration of its existing certification, has filed an application in proper form for renewal, such existing certification shall not expire until final action on the application has been taken by the Agency.

### **D.3 *CERTIFICATION OF ASBESTOS ANALYTICAL SERVICES***

#### **D.3.1 *General Requirement***

Asbestos analytical services offered for the purpose of meeting the requirements of these regulations must be certified in accordance with this Subpart. Applicants, in order to obtain certification for asbestos analytical services, must submit an application which demonstrates compliance with the requirements of this Subpart.

#### **D.3.2 *Application for Certification of Asbestos Analytical Services***

- (a) An applicant for certification of any asbestos analytical service shall submit the following information for Agency review:
  - (1) The name, address and phone number of the facility and person in charge;
  - (2) The names, duties and dates of employment of the personnel who will be performing and/ or certifying the asbestos analysis;
  - (3) The type(s) of asbestos analysis for which the person is requesting certification;
  - (4) For analysis of air samples: Evidence that the National Institute for Occupational Safety and Health has rated the applicant's laboratory facility as "Proficient (P)" in the Proficiency Analytical Testing (PAT) program's most recent round for asbestos evaluation.

- (5) For analysis of bulk asbestos samples: Evidence that the applicant's laboratory facility is currently accredited for Polarized Light Microscopy (PLM) in the Asbestos Fiber Analysis Program administered by the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology (NIST).
  - (6) Evidence that any analyst who is proposed to certify results of asbestos analysis conducted by Phase Contrast Microscopy (PCM) and/or Polarized Light Microscopy (PLM) has successfully completed:
    - (i) A formal course in PCM and/or PLM analysis of asbestos which is acceptable to the Agency and conducted by a center recognized for training personnel to perform PCM and/or PLM analysis of asbestos; or
    - (ii) An in-house training program, acceptable to the Agency, under the supervision of an individual who meets the requirements of paragraph (i) above.
  - (7) A copy of the quality control procedures for asbestos analysis established by the applicant's laboratory. If the document is lengthy, a summary of the essential elements may be submitted.
  - (8) For analysis of asbestos samples by Transmission Electron Microscopy (TEM): Evidence that the applicant's laboratory facility is currently accredited for TEM in the Asbestos Fiber Analysis Program administered by the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology (NIST).
  - (9) Evidence that any analyst who is proposed to certify results of asbestos analysis conducted by Transmission Electron Microscopy (TEM) has successfully completed:
    - (i) A formal course in TEM analysis of asbestos which is acceptable to the Agency and conducted by a center recognized for training personnel to perform TEM analysis of asbestos; or
    - (ii) An in-house training program, acceptable to the Agency, under the supervision of an individual who meets the requirements of paragraph (i) above.
- (b) In addition to the requirements contained in D.3.2(a), the person shall also submit:
- (1) Evidence of licensure as an analytical laboratory by the Rhode Island Department of Health-Division of Laboratories or, for facilities located outside of Rhode Island, evidence of licensure/certification by an equivalent state, county or municipal agency if said jurisdiction requires licensure/certification; and
  - (2) Evidence that the facility has previous experience in successful asbestos analysis utilizing NIOSH Method 7400 (most current Revision), the EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples or alternative methods acceptable to the Agency.
  - (3) Evidence that the facility has previous experience in successful asbestos analysis utilizing the method contained in Appendix A to 40 CFR 763, Subpart A, or alternative methods acceptable to the Agency. [Applicable only to facilities requesting certification for Transmission Electron Microscopy (TEM).]

### D.3.3 *Suspension or Revocation of Laboratory Certification*

The Agency may suspend or revoke any laboratory certification issued under this Subpart for:

- (a) Failure to maintain proficiency and/or accreditation in the required proficiency testing programs outlined in Subparagraphs D.3.2(a)(4), D.3.2(a)(5) and/or D.3.2(a)(8) of the regulations.
- (b) Submitting false information on an application.
- (c) Failure to comply with these regulations.
- (d) Any good cause within the meaning and purpose of these regulations or the Act; or
- (e) Failure to actually perform asbestos analysis in accordance with prevailing methods of practice.

### D.3.4 *Asbestos Analytical Services Fees and Issuance/Renewal of Certificates*

- (a) An application fee of seventy-five dollars (\$75) must accompany the application and shall be in the form of a check made payable to General Treasurer, State of Rhode Island. This fee is non-refundable and will not be returned if the application is denied or otherwise not approved by the Agency.
- (b) Pursuant to the provisions of Section 23-24.5-14(c) of the General Laws of Rhode Island, 1956, as amended, the Agency shall grant a certificate to an Asbestos Analytical Service which meets the certification requirements set forth in these regulations, and upon submission of the certification fee of two hundred and twenty five dollars (\$225) made payable by check to the General Treasurer, State of Rhode Island. All prospective analysts that meet Agency training requirements will be included on this certification. Said certificate shall expire one (1) year from the date of issuance unless sooner suspended or revoked. Said certificate may be renewed each year in accordance with the provisions of Section D.3.5 of these regulations and upon payment of the renewal application and certification fees of seventy-five dollars (\$75) and two hundred and twenty five dollars (\$225) respectively, made payable by check to the General Treasurer, State of Rhode Island.
- (c) All amendments which request inclusion of (an) additional certifying analyst(s) will be assessed a fee of forty dollars (\$40). Said fee shall be submitted to the Agency in the form of a check made payable to General Treasurer, State of Rhode Island.
- (d) Fees for Transmission Electron Microscopy (TEM) Facilities. Facilities requesting only certification for asbestos analysis by Transmission Electron Microscopy (TEM) shall submit the fee specified in Paragraph D.3.4(b). Facilities requesting certification for asbestos analysis by TEM in addition to Phase Contrast Microscopy (PCM) and/or Polarized Light Microscopy (PLM) shall be required to submit the fee specified in Paragraph D.3.4(b) and an additional initial/renewal certification fee of one hundred and twenty five dollars (\$125). Said fee shall be submitted to the Agency in the form of a check made payable to General Treasurer, State of Rhode Island.
- (e) All other amendments to Asbestos Analytical Service certificates will not be charged a fee.

#### D.3.5 *Renewal of Certification*

- (a) Requests for renewal of certifications issued under this Subpart must contain all the information requested by Section D.3.2 of these regulations without reference to any previously submitted material.
- (b) In any case in which a laboratory, not less than 30 days prior to expiration of its existing certification, has filed an application in proper form for renewal, such existing certification shall not expire until final action on the application has been taken by the Agency.

### **D.4 CERTIFICATION OF CONSULTANTS**

#### D.4.1 *General Requirement*

Asbestos consultant services offered for the purpose of meeting the requirements of these regulations must be certified in accordance with this Subpart. Applicants, in order to obtain certification for asbestos consultant services, must submit an application which demonstrates compliance with the requirements of this Subpart.

#### D.4.2 *Certification of Consultants*

- (a) Any individual requesting certification as an asbestos consultant must submit a completed application to the Agency on forms provided by the Agency. The application shall include all information required by the Act, these regulations, as well as by the form and accompanying instructions. The appropriate fee(s) required by Section D.4.4 of these regulations must also be submitted with the application.
- (b) In addition to the requirements contained in D.4.2(a), the individual shall also submit evidence of competence in the activity being requested. The following are minimum criteria for establishing competence in the various activities:
  - (1) Industrial Hygiene Services. On and after 1 November 1988 the categories of Industrial Hygiene consultants will no longer be recognized.
  - (2) Asbestos Abatement Planning. Asbestos Abatement Planning Services Certifications were no longer recognized as of 1 January 1989.
  - (3) Inspection Service. Inspection Services (Hazard Assessment) Certifications were no longer recognized as of 1 January 1989.
  - (4) Asbestos Inspection Services. Successful completion of an Agency certified training course covering state-of-the-art techniques in Asbestos Inspection specified by Paragraph D.1.8(e) of these regulations.
  - (5) Asbestos Project Designer Services. Successful completion of an Agency certified training course covering state-of-the-art techniques in Asbestos Project Design specified by Paragraph D.1.8(g) of these regulations.
  - (6) Asbestos Management Planner Services. Successful completion of an Agency certified training course covering state-of-the-art techniques in Asbestos Management Planning specified by

Paragraph D.1.8(i) of these regulations.

#### D.4.3 *Suspension or Revocation of Consultant Certification*

The Agency may suspend or revoke any consultant certification issued under this Subpart for:

- (a) Failure to maintain appropriate proficiency in the required areas, including failure to successfully complete the annual training requirement specified by Section D.4.7 of these regulations.
- (b) Incompetence and/or negligence.
- (c) Submitting false information on an application.
- (d) Failure to discharge activities in accordance with statutory and regulatory provisions contained in these regulations.
- (e) Failure to discharge activities in a manner consistent with prevailing standards of practice; or
- (f) Any good cause within the meaning and purpose of these regulations or the Act.

#### D.4.4 *Asbestos Consultant Fees and Issuance/Renewal of Certificates*

- (a) Pursuant to the provisions of Section 23-24.5-14(c) of the General Laws of Rhode Island, 1956, as amended, the Agency shall grant a certificate to an Asbestos Consultant who meets the certification requirements set forth in these regulations, and upon submission of the certification fee of one hundred and fifty dollars (\$150) for the first category certified and seventy five dollars (\$75) for each additional category certified at the time of original application, made payable by check to the General Treasurer, State of Rhode Island. Said certificate shall expire one (1) year from the date of issuance unless sooner suspended or revoked. Said certificate may be renewed each year in accordance with the provisions of Section D.4.5 of these regulations, upon documentation of compliance with the requirements of Section D.4.7 of these regulations, and upon payment of the renewal certification fees of one hundred and fifty dollars (\$150) for the first category certified and seventy five dollars (\$75) for each additional category certified at the time of renewal, made payable by check to the General Treasurer, State of Rhode Island.
- (b) All amendments which contain a request for (an) additional Asbestos Consultant service(s) will be assessed a fee of one hundred and fifty dollars (\$150) for the first additional category certified and seventy-five dollars (\$75) for each subsequent category certified at the time of each amendment request. Said fee shall be submitted to the Agency in the form of a check made payable to General Treasurer, State of Rhode Island. Amendment fees will not be prorated for a period of time less than the full term of a certificate and amended Asbestos Consultant certificates will only be issued for the balance of the one (1) year term of the original certificate.
- (c) ***Waiver of Asbestos Consultant Fees.*** Full time employees of a Local Education Agency (LEA) that maintain Asbestos Inspector or Asbestos Management Planner certificates solely because of requirements contained in the AHERA regulations may receive a waiver of application and certification fees under the following conditions:
  - (1) Each LEA will be limited to three (3) fee waivers for Asbestos Management Planner or Asbestos

Inspector certificates during any twelve (12) consecutive month period. A application for certification as both an Asbestos Inspector and Asbestos Management Planner shall be considered as two (2) fee waivers.

- (2) The applicant's initial or renewal application must be accompanied by a written statement from the LEA Superintendent (or equivalent official) that said applicant's assigned duties require possession of the specified certificate(s).
  - (3) The certificate(s) will limit authorized activities to those buildings owned by, or under the direct control of, the LEA, and will terminate before the stated expiration date if the certificate holder is no longer a full time employee of the LEA.
- (d) All other amendments to Asbestos Consultant certificates will not be charged a fee.

#### **D.4.5 *Renewal of Certification***

- (a) Requests for renewal of certifications issued under this Subpart must contain all the information requested by Section D.4.2 of these regulations without reference to any previously submitted material. All applications for renewal of certification must also include documentation of compliance with the provisions of Section D.4.7 of these regulations regarding successful completion of required annual review training.
- (b) In any case in which a consultant, not less than 30 days prior to expiration of its existing certification, has filed an application in proper form for renewal, such existing certification shall not expire until final action on the application has been taken by the Agency.

#### **D.4.6 *Assessment Criteria***

Inspection Services certified under this Subpart shall use the assessment criteria established by Part E of these regulations unless the Service is authorized by the Agency, in writing, to utilize other assessment criteria.

#### **D.4.7 *Annual Training Requirement***

Consultants certified in accordance with this Subpart must successfully complete the annual training requirements specified below:

- (a) An individual certified for Asbestos Inspection Services must successfully complete the certified annual review course specified by Paragraph D.1.8(f) of these regulations.
- (b) An individual certified for Abatement Project Designer Services must successfully complete the certified annual review course required by Paragraph D.1.8(h) of these regulations. The Site Supervisor annual review course, described in Section B.3.4 of these regulations, can not be used to fulfill this requirement.
- (c) An individual certified for Asbestos Management Planner Services must successfully complete the certified annual review course required by Paragraph D.1.8(j) of these regulations.

# **RULES AND REGULATIONS FOR ASBESTOS CONTROL**

[R23-24.5-ASB]

## **PART E**

### **HAZARD ASSESSMENT CRITERIA**

**JANUARY 1986**

**AS AMENDED:**  
AUGUST 1986  
OCTOBER 1988  
JUNE 1990

## **PART E HAZARD ASSESSMENT CRITERIA**

### ***E.1 INSPECTION OF BUILDINGS***

#### ***E.1.1 General Requirement***

Inspections of buildings for the purpose of making the following determinations shall be conducted in accordance with the requirements contained in this Part of these regulations: the asbestos content of materials; conducting information surveys for asbestos containing materials.

#### ***E.1.2 Establishing the Asbestos Content of Materials***

Bulk sampling of materials suspected of containing asbestos shall be conducted in accordance with the procedures contained in Appendix A to this Part. Analysis of bulk samples shall be performed by a laboratory certified in accordance with Subpart D.3 of these regulations.

#### ***E.1.3 Conducting Information Surveys for Asbestos Containing Materials***

Asbestos inspections for schools subject to the AHERA regulations shall be in accordance with 40 CFR 763.85 and 763.86. In all other cases, information to be collected for the evaluation of asbestos hazards in buildings shall be in accordance with the format contained in Appendix C to this Part.

#### ***E.1.4 Determining the Degree of Hazard Posed by Asbestos Containing Materials***

- (a) The degree of hazard posed by asbestos containing materials in school buildings subject to the AHERA regulations shall be evaluated in accordance with 40 CFR 763.88. In all other cases, the degree of hazard posed by asbestos containing materials in buildings shall be evaluated using the algorithm contained in Appendix B to this Part.
- (b) Notwithstanding the requirements of Section E.1.3 and Paragraph E.1.4(a) of these regulations, assessments of schools shall also be conducted in accordance with Appendices B and C to this Part for the purpose of determining eligibility for funding in accordance with Section 23-24.5-19 of the Act and regulations adopted thereunder.

### ***E.2 DEVELOPMENT OF ASBESTOS ABATEMENT REMEDIES***

#### ***E.2.1 General Requirement***

- (a) Areas of buildings receiving a score greater than zero from the hazard assessment conducted in accordance with Section E.1.4 of these regulations will require some type of asbestos abatement (management) plan. This asbestos abatement plan must be developed by the building owner in accordance with Part C of these regulations and submitted for Agency review.
- (b) Decisions regarding the abatement remedies that may be proposed to the Agency as part of an asbestos abatement plan are the responsibility of the building owner. These strategies may range

from simple operations and maintenance plans to complete removal. The remedies proposed in the asbestos abatement plan will be governed by the nature and extent of the hazards that have been identified, as reflected by the numerical score determined in accordance with Section E.1.4 of these regulations. The acceptability of proposed abatement remedies will be reviewed by the Agency during the plan approval process in accordance with Part C of these regulations.

### ***E.3 REINSPECTION OF SCHOOLS AND SCHOOL BUILDINGS***

#### ***E.3.1 General Requirement***

All schools and school buildings, as defined by the AHERA regulations, must have all friable and nonfriable known or assumed ACM reinspected at least once every three (3) years in accordance with 40 CFR 763.85(b).

**APPENDIX A**  
**SAMPLING AND ANALYSIS CRITERIA**

***BULK SAMPLING PROTOCOL FOR HAZARD ASSESSMENT***

***1. Number of Samples***

Samples of suspect asbestos containing materials must be taken for laboratory analysis. The number of samples to be taken is dependent upon the type of material to be sampled.

***(a) Friable or Potentially Friable Surfacing Material***

A consultant certified for Asbestos Inspection Services in accordance with Subparagraph D.4.2(b)(5) of these regulations or a Competent Person certified in accordance with Subpart D.2 of these regulations shall collect bulk samples, in a statistically random manner that is representative of each homogeneous area, as follows:

- (1) At least three (3) bulk samples from each homogeneous area that is one thousand (1000) square feet or less, except as provided in Subparagraphs (4) and (5) of this Section.
- (2) At least five (5) bulk samples from each homogeneous area that is greater than one thousand (1000) square feet but less than five thousand (5000) square feet, except as provided in Subparagraphs (4) and (5) of this Section.
- (3) At least seven (7) bulk samples from each homogeneous area that is greater than five thousand (5000) square feet, except as provided in Subparagraphs (4) and (5) of this Section.
- (4) A homogeneous area shall be determined to contain ACM based on a finding that the results of at least one (1) sample collected from that area shows that asbestos is present in an amount greater than one percent (1%).
- (5) A homogeneous area is considered not to contain ACM only if the results of all samples required to be collected from that area show asbestos in amounts of one percent (1%) or less.

***(b) Thermal System Insulation.***

A consultant certified for Asbestos Inspection Services in accordance with Subparagraph D.4.2(b)(5) of these regulations or a Competent Person certified in accordance with Subpart D.2 of these regulations shall collect bulk samples, in a statistically random manner that is representative of each homogeneous area, as follows:

- (1) At least three (3) bulk samples from each homogeneous area that is damaged, except as provided in Subparagraphs (1)(a)(4) and (1)(a)(5) of this Appendix.
- (2) At least one (1) bulk sample from each homogeneous area of patched thermal system insulation if the patched section is less than six (6) linear or square feet, except as provided in Subparagraphs (1)(a)(4) and (1)(a)(5) of this Appendix.
- (3) In a manner sufficient to determine whether the material is ACM or not ACM, collect bulk samples from each insulated mechanical system where cement is used on tees, elbows or valves, except as provided in Subparagraphs (1)(a)(4) and (5) of this Appendix.

(c) ***Miscellaneous and Non-Friable Material***

A consultant certified for Asbestos Inspection Services in accordance with Subparagraph D.4.2(b)(5) of these regulations or a Competent Person certified in accordance with Subpart D.2 of these regulations shall collect bulk samples from each homogeneous area in a manner sufficient to determine whether the material is ACM or not ACM, except as provided in Subparagraphs (1)(a)(4) and (1)(a)(5) of this Appendix.

(d) ***Homogeneous Areas Assumed to Contain ACM***

Notwithstanding the requirements of Paragraphs (1)(a), (1)(b) and (1)(c) above, any homogeneous area that is assumed to be ACM in accordance with 40 CFR 763.85(a)(4)(iii) and (iv) does not have to be sampled as long as the remaining elements of the assessment required by 40 CFR 763.85(a)(4)(v) and/or Subpart E of these regulations are completed.

**2. *Sampling Procedures***

(a) ***Materials***

- \* Clean, dry small jar (35 mm film canister or small, wide-mouthed glass jar) with screw-on lid
- \* Knife (optional)
- \* Core borer (optional)
- \* Half-face cartridge respirator with two screw-in canisters; NIOSH approval number TC-23C-153 (Mine Safety Appliance chemical cartridge: approved for organic volatiles, chlorine, sulfur dioxide and hydrogen chloride; with dust, fume, mist (high efficiency) filter.

(b) ***Sampling Methods***

- \* The material should be sampled when the area is not in use.
- \* Only those persons needed for sampling should be present.
- \* The sampler should wear an approved respirator.
- \* The material to be sampled should be lightly misted with water to minimize fiber release.
- \* Gently twist the open end of the container into the material, penetrating the depth of the material until material falls into the container. Use a knife or core borer to take the sample of cementitious materials and then empty the material into the container.
- \* Close the container tightly and wipe off the exterior with a damp cloth. Tape the lid to prevent accidental opening during shipment or handling.
- \* Label the sample container with a unique identification number, the name of the building, initials of the person who sampled, and the date of sample collection.
- \* Make a record of each sample by noting the date the sample was taken, location of material sampled (including room or area), and the sample ID number.
- \* Wet mop or wipe-up with a wet cloth any material which may have fallen on the floor.
- \* Spray the area sampled with a clear shellac, varnish or similar material to minimize the potential for fiber release.
- \* Clean the knife or core borer, if used, with water.
- \* Submit samples to a laboratory certified by the Agency to analyze asbestos.
- \* Request that results be reported as type and percent asbestos by a method capable of determining asbestos content with a minimum detection level of 1% by weight.



**APPENDIX B**  
**EVALUATION & RATING OF ASBESTOS HAZARDS IN BUILDINGS**

FACTOR	RANGE OR EXTENT	SCORE
1. Material Condition Deterioration/Damage	None Moderate/Small Area (See Notes 1 & 3) Moderate/Large Area (See Notes 1 & 4) Severe/Small Area (See Notes 2 & 3) Severe/Large Area (See Notes 2 & 4)	0 2 3 4 5
	<b>MATERIAL CONDITION RATING:</b>	
2. Water Damage (Including Steam)	None Damage over Small Area or No Damage but with flat roof immediately overhead (See Note 3) Damage over Small Area with flat roof immediately overhead or Damage to Large Area regardless of roof type (See Notes 3 and 4)	0 1 2
	<b>WATER DAMAGE RATING:</b>	
	<p><b>Note 1:</b> Moderate-Any uncovered pipe and/or delamination, crack, etc in a surface that is basically intact.</p> <p><b>Note 2:</b> Severe-Obvious deterioration or physical separation that is not easily repaired.</p> <p><b>Note 3:</b> Small Area-Any area less than or equal to 10 linear feet (pipes) or 25 square feet (surfaces other than pipes).</p> <p><b>Note 4:</b> Large Area-Any area greater than 10 linear feet (pipes) or 25 square feet (surfaces other than pipes).</p>	
3. Exposed Surface Area	Not Exposed (i.e.: Located above suspended ceiling and/or not visible without removing panels or ceiling sections) 10% or less of the material is exposed 10% - 100% of the material is exposed	0 1 4
	<b>EXPOSED SURFACE AREA RATING:</b>	

FACTOR	RANGE OR EXTENT	SCORE
4. Accessibility	Not Accessible Low (Access requires removal of temporary barrier such as drop-ceiling) Low-Moderate (Accessible only with devices or equipment not common to area) Moderate (accessible only with devices or equipment common to area) High (Accessible with no additional devices or equipment)	0 1 2 3 4
	<b>ACCESSIBILITY RATING:</b>	
5. Activity and Movement	None or Low (Sedentary activities only) Moderate (Ordinary movement - more walking than sitting) High (Elevated level of physical activity such as running, jumping or manual labor)	0 1 2
	<b>ACTIVITY AND MOVEMENT RATING:</b>	
6. Air Plenum or Direct Air Stream	None Present	0 1
	<b>AIR PLENUM OR DIRECT AIR STREAM RATING:</b>	
7. Friability	Not Friable Potentially Friable (Difficult but possible to damage by hand <u>and/or</u> material than has been properly encapsulated or enclosed) Moderately Friable (Fairly easy to dislodge and crush) Highly Friable (Fluffy, spongy or flaking <u>and/or</u> pieces hanging <u>and/or</u> falls apart when touched)	0.1 1 2 3
	<b>FRIABILITY RATING:</b>	
8. Asbestos Content	Trace to <1% 1% to 50% 50% to 100%	0 2 3
	<b>ASBESTOS CONTENT RATING:</b>	

FACTOR	RANGE OR EXTENT	SCORE
9. Occupancy & Use	Low Priority Buildings	0
	Low Priority Areas	0
	Restricted Use Areas	0
	High Priority Areas of Intermediate Priority Buildings	8
	High Priority Areas of High Priority Buildings	12
	<b>OCCUPANCY &amp; USE RATING:</b>	

**TOTAL HAZARD = ((SUM of Factors 1-6) x [Factor #7] x [Factor #8]) + [Factor 9]**

**TOTAL HAZARD = ( \_\_\_\_\_ x \_\_\_\_\_ x \_\_\_\_\_ ) + ( \_\_\_\_\_ ) =**

**Comments:**

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**APPENDIX C**  
**WALK-THROUGH SURVEY FOR INFORMATION ON**  
**ASBESTOS HAZARDS IN BUILDINGS**

<b>PARAMETER</b>	<b>DESCRIPTION--Indicate all that apply</b>
1. Primary Use of this Area	<b>A</b> -Auditorium <b>B</b> -Boiler/Mech. <b>C</b> -Corridor <b>D</b> -Storage <b>E</b> -Classroom <b>F</b> -Food Service <b>G</b> -Gymnasium <b>H</b> -Lavatory <b>I</b> -Inaccessible <b>J</b> -Office <b>K</b> -Lounge <b>Z</b> -Other
2. Persons with Access to this area	<b>1</b> -General Public <b>2</b> -All Employees <b>3</b> -Children <b>4</b> -Maintenance Employees Only <b>5</b> -Patients <b>6</b> -1 & 2 <b>7</b> -1 & 3 <b>8</b> -2 & 3 <b>9</b> -1, 2 & 3 <b>0</b> -Other
3. Asbestos Location	<b>1</b> -Ceiling <b>2</b> -Walls <b>3</b> -Exposed Pipes <b>4</b> -Pipes Above Suspended Ceiling <b>9</b> -Other
4. Type of Asbestos	<b>1</b> -Trowelled On <b>2</b> -Sprayed On <b>3</b> -Transite in this Area <b>4</b> -Boiler Lagging <b>5</b> -Steam Pipe <b>6</b> -Water Tank <b>7</b> -Water Pipe <b>8</b> -Air Duct <b>9</b> -Other
5. Total Asbestos in this area	_____ Linear Feet (Pipes Only) _____ Square Feet (All Other Surfaces)
6. % of Total Asbestos in area that is exposed**	<b>0</b> -None <b>1</b> -Less Than 10% <b>4</b> -10%-100%
7. Description of Damage	<b>0</b> -None <b>1</b> -Water Damage <b>2</b> -Impact Damage <b>3</b> -Loose <b>4</b> -Incomplete Repair <b>5</b> -Open Ends <b>6</b> -Delamination <b>7</b> -Dust/Debris <b>8</b> -Cracks <b>9</b> -Other
8. Degree of Damage	<b>0</b> -None <b>1</b> -Moderate <b>2</b> -Severe
9. Total Asbestos Damaged in this Area	_____ Linear Feet (Pipes Only) _____ Square Feet (All Other Surfaces)
10. Accessibility of the Asbestos in this Area **	<b>0</b> -Not Accessible <b>1</b> -Access by removal of barrier <b>2</b> -Access with Equipment NOT Common to Area <b>3</b> -Access with Equipment Common to Area <b>4</b> -Easy Access

<b>PARAMETER</b>	<b>DESCRIPTION--Indicate all that apply</b>
11. Friability of Asbestos this Area **	<b>0.1</b> -Not Friable <b>1</b> -Potentially Friable <b>2</b> -Moderately Friable <b>3</b> -Highly Friable
12. Typical Occupancy of this Area	<b>0</b> -None <b>1</b> -Low <b>2</b> -Moderate <b>3</b> -High
	Average Person-hours/Week in this Area:
13. Typical Activity in this Area**	<b>0</b> -Sedentary <b>1</b> -Ordinary Movement <b>2</b> -Elevated Physical Activity and/or Manual Labor
14. Air plenum or direct air stream in this area?***	<b>0</b> -No <b>1</b> -Yes
15. Is air removed from this area supplied to other areas? ( ) No ( ) Yes	If Yes, indicate number and use of other rooms involved: _____ _____
16. Ceiling Type	<b>1</b> -Concrete <b>2</b> -Plaster <b>3</b> -Concrete Joists/Beams <b>4</b> -Tile <b>5</b> -Suspended Lay-in Panels <b>6</b> -Corrugated Steel <b>7</b> -Metal Deck/Steel Beam/Bar Joist <b>8</b> -Suspended Metal Lath <b>9</b> -Other
17. Ceiling Shape	<b>1</b> -Flat <b>2</b> -Dome <b>3</b> -Folded Plate <b>4</b> -Barrel <b>5</b> -Reinforced Squares <b>9</b> -Other
18. Ceiling Height (Feet):	
19. Lighting Type	<b>1</b> -Surface Mounted <b>2</b> -Suspended <b>3</b> -Recessed <b>9</b> -Other
20. # of Light Fixtures:	
21. Floor Type	<b>1</b> -Concrete <b>2</b> -Tile/Linoleum <b>3</b> -Wood <b>4</b> -Carpet <b>5</b> -Soil <b>9</b> -Other

**22. COMMENTS:**

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**NOTE:** Parameters indicated by \*\* are directly transferred to FORM ASB-2 when calculating the overall asbestos hazard rating of this sub-area.

# **RULES AND REGULATIONS FOR ASBESTOS CONTROL**

[R23-24.5-ASB]

## **PART F**

### **NESHAP REQUIREMENTS**

**FEBRUARY 1992**

**PART F**  
**NESHAP REQUIREMENTS**

**F.1 GENERAL PROVISIONS**

**F.1.1 Authority**

This part is promulgated pursuant to authority delegated to the Agency by the U.S. Environmental Protection Agency under the provisions of 40 CFR 61.157(b).

**F.1.2 Implementation**

Implementation of this part will be suspended until such time as formal delegation of Asbestos NESHAP authority has been conveyed to the Agency by the U.S. Environmental Protection Agency.

**F.1.3 Applicability and Scope**

This part is only applicable to federal facilities and such other persons subject to the asbestos NESHAP requirements promulgated in 40 CFR 61, Subpart M who are not otherwise subject to these regulations. The definitions contained in Subpart A.1 of these regulations are also applicable to this part, to the extent that they pertain to regulations contained in this part.

**F.2 STANDARD FOR DEMOLITION AND RENOVATION**

**F.2.1 Applicability**

Prior to the commencement of any demolition or renovation, the owner or operator of a demolition or renovation activity shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable ACM. The requirements of Sections F.2.2 and F.2.3 of these regulations apply to each operator and owner of a demolition or renovation activity, including the removal of RACM, as follows:

- (a) In a facility being demolished, all the requirements of Sections F.2.2 and F.2.3 apply, except as provided in Paragraph F.2.1(c) below, if the combined amount of RACM is:
  - (1) At least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on other facility components; or
  - (2) At least 1 cubic meter (35 cubic feet) off facility components where the length or area could not be measured previously.
- (b) In a facility being demolished, only the notification requirements of Paragraphs F.2.2(a), (b), (c)(1), (c)(4), (d)(1) through (d)(7), (d)(9) and (d)(16) apply if the combined amount of RACM is:
  - (1) Less than 80 linear meters (260 linear feet) on pipes and less than 15 square meters (160 square feet) on other facility components; and
  - (2) Less than 1 cubic meter (35 cubic feet) off facility components where the length or area could not be measured previously or there is no asbestos.

- (c) If the facility is being demolished under an order of a State or local government agency, issued because the facility is structurally unsound and in danger of imminent collapse, only the requirements of Paragraphs F.2.2(a), (b), (c)(3), (d) [except (d)(8)], (e), and F.2.3(d) through F.2.3(i) apply.
- (d) In a facility being renovated, including any individual nonscheduled renovation operation, all the requirements of Sections F.2.2 and F.2.3 apply if the combined amount of RACM to be stripped, removed, dislodged, cut, drilled, or similarly disturbed is:
  - (1) At least 80 linear meters (260 linear feet) on pipes or at least 15 square meters (160 square feet) on other facility components; or
  - (2) At least 1 cubic meter (35 cubic feet) off facility components where the length or area could not be measured previously.
  - (3) To determine whether Paragraph F.2.1(d) applies to planned renovation operations involving individual nonscheduled operations, predict the combined additive amount of RACM to be removed or stripped during a calendar year of January 1 through December 31.
  - (4) To determine whether Paragraph F.2.1(d) applies to emergency renovation operations, estimate the combined amount of RACM to be removed or stripped as a result of the sudden, unexpected event that necessitated the renovation.
- (e) Owners or operators of demolition operations are exempt from the requirements of 40 CFR 61.05(a), 61.07 and 61.09.

**F.2.2 Notification Requirements**

Each owner or operator of a demolition or renovation activity to which this section applies shall:

- (a) Provide the Agency with written notice of intention to demolish or renovate. Delivery of the notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable.
- (b) Update notice, as necessary, including when the amount of asbestos changes by at least 20 percent.
- (c) Postmark or deliver the notice as follows:
  - (1) If the operation is described in Paragraphs F.2.1(a) and (d) [except (d)(3) and (d)(4)], notification is required at least 10 working days before asbestos stripping or removal work, or any other activity [e.g. site preparation] that would break up, dislodge or similarly disturb asbestos material, begins. If the operation is as described in Paragraph F.2.1(b), notification is required 10 working days before demolition begins.
  - (2) For renovations described in Paragraph F.2.1(d)(3), notification is required at least 10 working days before the end of a calendar year preceding the year for which notice is being given.
  - (3) If the operation is a demolition ordered according to Paragraph F.2.1(c), or a renovation described in Paragraph F.2.1(d)(4), notification is required as early as possible before, but not later than, the following working day.

- (4) If asbestos stripping or removal work in a demolition or renovation operation described in Paragraphs F.2.1(a) and (d) [except (d)(3) and (d)(4)], or a demolition described in Paragraph F.2.1(b), will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Agency as follows:
- (i) When the asbestos stripping or removal operation or demolition operation covered by this paragraph will begin after the date contained in the notice:
    - (a) Notify the Agency of the new start date by telephone as soon as possible before the original start date; and
    - (b) Provide the Agency with a written notice of the new start date as soon as possible before, and no later than, the original start date. Delivery of the updated notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable.
  - (ii) When the asbestos stripping or removal operation or demolition operation covered by this paragraph will begin on a date earlier than the original start date:
    - (a) Provide the Agency with a written notice of the new start date at least 10 working days before asbestos stripping or removal work begins.
    - (b) For demolitions covered by Paragraph F.2.1(b), provide the Agency with a written notice of the new start date at least 10 working days before commencement of demolition. Delivery of updated notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable.
  - (iii) In no event shall an operation covered by this subpart begin on a date other than the date contained in the written notice of the new start date.
- (d) The most current revision of Agency Form ASB-22 shall be used to submit the following information:
- (1) An indication of whether the notice is the original or a revised notification.
  - (2) Name, address and telephone number of both the facility owner and operator and the asbestos removal contractor owner or operator.
  - (3) Type of operation: demolition or renovation.
  - (4) Description of the facility or affected part of the facility including the size [square meters/ square feet and number of floors], age, and present and prior use of the facility.
  - (5) Procedure, including analytical methods, employed to detect the presence of RACM and Category I and Category II nonfriable ACM.
  - (6) Estimate of the approximate amount of RACM to be removed from the facility in terms of length of pipe in linear meters (linear feet), surface area in square meters (square feet) on other facility components, or volume in cubic meters (cubic feet) if off the facility components. Also, estimate the approximate amount of Category I and Category II nonfriable ACM in the affected part of the facility that will not be removed before 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 a demolition or renovation activity involving asbestos removal work or any other activity [e.g. site preparation] that would break up, dislodge, or similarly disturb asbestos material. Planned renovation operations involving individual nonscheduled operations shall only include the beginning and ending dates of the report period, as described in Paragraph F.2.1(d)(3).
- (9) Scheduled starting and completion dates of demolition or renovation.
- (10) Description of planned demolition or renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used and descriptions of affected facility components.
- (11) Description of work practices and engineering controls to be used to comply with the requirements of this Subpart, including asbestos removal and waste handling emission control procedures.
- (12) Name and location of the waste disposal site where the Asbestos Containing Waste Material will be deposited.
- (13) A certification that at least one person trained as required by Paragraph F.2.3(h) will supervise the stripping and removal described by this notification. This requirement shall become effective 20 November 1991.
- (14) For facilities described in Paragraph F.2.1(c), the name, title, and authority of the State or local government representative who has ordered the demolition, the date that the order was issued, and the date on which the demolition was ordered to begin. A copy of the order shall be attached to the notification.
- (15) For emergency renovations described in Paragraph F.2.1(d)(4), 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 or would cause equipment damage or an unreasonable financial burden.
- (16) Description of procedures to be followed in the event that unexpected RACM is found or Category II nonfriable ACM becomes crumbled, pulverized, or reduced to powder.
- (17) Name, address and telephone number of waste transporter.

### **F.2.3 *Procedures for Asbestos Emission Control***

Each owner or operator of a demolition or renovation activity to whom this part applies, according to Section F.2.1 of these regulations, shall comply with the following procedures:

- (a) Remove all RACM from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. RACM need not be removed before demolition if:

- (1) It is Category I nonfriable ACM that is not in poor condition and is not friable.
  - (2) It is on a facility component that is encased in concrete or other similarly hard material and is adequately wet whenever exposed during demolition; or
  - (3) It was not accessible for testing and was, therefore, not discovered until after demolition began and, as a result of the demolition, the material cannot be safely removed. If not removed for safety reasons, the exposed RACM and any asbestos contaminated debris must be treated as Asbestos Containing Waste Material and adequately wet at all times until disposed of.
  - (4) They are Category II nonfriable ACM and the probability is low that the materials will become crumbled, pulverized, or reduced to powder during demolition.
- (b) When a facility component that contains, is covered with, or is coated with RACM is being taken out of the facility as a unit or in sections:
- (1) Adequately wet all RACM exposed during cutting and disjoining operations; and
  - (2) Carefully lower each unit or section to the floor and to ground level, not dropping, throwing, sliding, or otherwise damaging or disturbing the RACM.
- (c) When RACM is stripped from a facility component while it remains in place in the facility, adequately wet the RACM during the stripping operation.
- (1) In renovation operations, wetting is not required if:
    - (i) The owner or operator has obtained prior written approval from the Agency based on a written application that wetting to comply with this paragraph would unavoidably damage equipment or present a safety hazard; and
    - (ii) The owner or operator uses one or more of the following emission control methods:
      - (a) A local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping and removal of the asbestos materials. The system must exhibit no visible emissions to the outside air, or be designed and operated to utilize either a HEPA filter that is certified to be at least 99.97 percent efficient for 0.3 micron particles or another method approved by the Administrator of the U.S. Environmental Protection Agency in accordance with 40 CFR 61.152(b)(3).
      - (b) A glovebag system designed and operated to contain the particulate asbestos material produced by the stripping of the asbestos materials.
      - (c) Leak-tight wrapping to contain all RACM prior to dismantlement.
  - (2) In renovation operations where wetting would result in equipment damage or a safety hazard, and the methods allowed in Paragraph F.2.3(c)(1) cannot be used, another method may be used after obtaining written approval from the Agency based upon a determination that it is equivalent to wetting in controlling emissions or to the methods allowed in Paragraph F.2.3(c)(1).

- (3) A copy of the Agency's written approval shall be kept at the worksite and made available for inspection.
- (d) After a facility component covered with, coated with, or containing RACM has been taken out of the facility as a unit or in sections pursuant to Paragraph F.2.3(b), it shall be stripped or contained in leak-tight wrapping, except as described in Paragraph F.2.3(e). If stripped, either:
  - (1) Adequately wet the RACM during stripping; or
  - (2) Use a local exhaust ventilation and collection system designed and operated to capture the particulate asbestos material produced by the stripping. The system must exhibit no visible emissions to the outside air, or be designed and operated to utilize either a HEPA filter that is certified to be at least 99.97 percent efficient for 0.3 micron particles or another method approved by the Administrator of the U.S. Environmental Protection Agency in accordance with 40 CFR 61.152(b)(3).
- (e) Beams must be handled in accordance with Paragraphs F.2.3(b), (c), and (d) above. RACM is not required to be stripped from large facility components such as reactor vessels, large tanks, and steam generators if the following requirements are met:
  - (1) The component is removed, transported, stored, disposed of, or reused without disturbing or damaging the RACM.
  - (2) The component is encased in a leak-tight wrapping.
  - (3) The leak-tight wrapping is labeled according to Section F.3.4 of these regulations during all loading and unloading operations and during storage.
- (f) For all RACM, including material that has been removed or stripped:
  - (1) Adequately wet the material and ensure that it remains wet until collected and contained or treated in accordance with Subpart F.3 of these regulations; and
  - (2) Carefully lower the material to the ground and floor, not dropping, throwing, sliding, or otherwise damaging or disturbing the material.
  - (3) Transport the material to the ground via leak-tight chutes or containers if it has been removed or stripped more than 50 feet above ground level and was not removed as units or in sections.
  - (4) RACM contained in leak-tight wrapping that has been removed in accordance with Paragraphs F.2.3(d) and F.2.3(c)(1)(ii)(c) need not be wetted.
- (g) When the temperature at the point of wetting is below 0°C (32°F):
  - (1) The owner or operator need not comply with Paragraphs F.2.3(b)(1) and the wetting provisions of Paragraph F.2.3(c).
  - (2) The owner or operator shall remove facility components containing, coated with, or covered with RACM as units or in sections to the maximum extent possible.

- (3) During periods when wetting operations are suspended due to freezing temperatures, the owner or operator must record the temperature in the area containing the facility components at the beginning, middle, and end of each workday and keep daily temperature records available for inspection by the Agency during normal business hours at the demolition or renovation site. The owner or operator shall retain temperature records for at least two years.
- (h) Effective 20 November 1991, no RACM shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by this section unless at least one on-site representative, such as a foreman or management level person or other authorized representative, trained in the provisions of these regulations and the methods for complying with them, is present. Every 2 years, the trained on-site individual shall receive refresher training in the provisions of this regulation. The required training shall include as a minimum: applicability; notifications; material identification; control procedures for removals including, at least, wetting, local exhaust ventilation, negative pressure enclosures, glovebag procedures and High Efficiency Particulate Air (HEPA) filters; waste disposal work practices; reporting and recordkeeping; and asbestos hazards and worker protection. Evidence that the required training has been completed shall be posted and made available for inspection by the Agency at the demolition or renovation site.
- (i) For facilities described in Paragraph F.2.1(c), adequately wet the portion of the facility that contains RACM during the wrecking operation.
- (j) If a facility is demolished by intentional burning, all RACM including Category I and Category II nonfriable ACM must be removed in accordance with these regulations before burning.

### ***F.3 STANDARDS FOR WASTE DISPOSAL FOR DEMOLITION AND RENOVATION OPERATIONS***

#### ***F.3.1 Applicability and Scope***

Each owner or operator of a demolition or renovation activity subject to Subpart F.2 of these regulations shall also comply with the provisions of this subpart.

#### ***F.3.2 Visible Emissions***

Discharge no visible emissions to the outside air during the collection, processing (including incineration), packaging, or transporting of any Asbestos Containing Waste Material, or use one of the following emission control and waste treatment methods:

- (a) Process Asbestos Containing Waste Material for disposal as follows:
  - (1) Adequately wet Asbestos Containing Waste Materials; and
  - (2) Discharge no visible emissions to the outside air from collection, mixing, wetting, and handling operations. Alternatively, either a HEPA filter that is certified to be at least 99.97 percent efficient for 0.3 micron particles or another method approved by the Administrator of the U.S. Environmental Protection Agency in accordance with 40 CFR 61.152(b)(3) shall be used to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air; and

- (3) After wetting, seal all Asbestos Containing Waste Material in leak-tight containers while wet. Alternatively, materials that will not fit into containers without additional breaking shall be put into leak-tight wrapping; and
  - (4) Label the containers or wrapped materials using warning labels specified by Paragraph B.8.2(1) of these regulations. The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible.
  - (5) For Asbestos Containing Waste Material to be transported off the facility site, label containers or wrapped materials with the name of the waste generator and the location at which the waste was generated.
- (b) Process Asbestos Containing Waste Material into nonfriable forms as follows:
- (1) Form all Asbestos Containing Waste Material into nonfriable pellets or other shapes;
  - (2) Discharge no visible emissions to the outside air from collection and processing operations. Alternatively, either a HEPA filter that is certified to be at least 99.97 percent efficient for 0.3 micron particles or another method approved by the Administrator of the U.S. Environmental Protection Agency in accordance with 40 CFR 61.152(b)(3) shall be used to clean emissions containing particulate asbestos material before they escape to, or are vented to, the outside air.
- (c) For facilities demolished where the RACM is not removed prior to demolition according to F.2.3(a)(1) through (a)(4), or for facilities demolished according to F.2.3(i), adequately wet Asbestos Containing Waste Material at all times after demolition and keep wet during handling and loading for transport to a disposal site. Asbestos containing waste materials covered by this paragraph do not have to be sealed in leak-tight containers and wrapping but may be transported and disposed of in bulk.
- (d) Use an alternative emission control and waste treatment method that has received prior approval from the Administrator of the U.S. Environmental Protection Agency in accordance with the procedure described in 40 CFR 61.149(c)(2).
- (e) As applied to demolition and renovation, the requirements of Section F.3.2 do not apply to Category I nonfriable ACM waste and Category II nonfriable ACM waste that did not become crumbled, pulverized, or reduced to powder.

### **F.3.3 *Disposal of Asbestos Containing Waste Material***

All Asbestos Containing Waste Material shall be deposited as soon as is practical by the waste generator at:

- (a) A waste disposal site operated in accordance with the provisions of 40 CFR 61.154, or equivalent regulations promulgated by a state or local NESHAP designee; or
- (b) An EPA-approved site that converts RACM and Asbestos Containing Waste Material into nonasbestos (asbestos-free) material according to the provisions of 40 CFR 61.155.
- (c) The requirements of Section F.3.3 of these regulations do not apply to Category I nonfriable ACM that is not RACM.

F.3.4 **Placarding**

Vehicles used to transport Asbestos Containing Waste Material shall be placarded during the loading and unloading of the waste so that the signs are visible. The signs must:

- (a) Be displayed in such a manner and location that a person can easily read the legend.
- (b) Conform to the requirements for 51 cm X 36 cm (20 inch X 14 inch) upright format signs specified in OSHA 29 CFR 1910.145(d)(4).
- (c) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to that specified below:

Legend  
DANGER  
ASBESTOS DUST HAZARD  
CANCER AND LUNG DISEASE HAZARD  
Authorized Personnel Only  
Notation  
  
2.5 cm (1 inch) Sans Serif, Gothic or Block  
2.5 cm (1 inch) Sans Serif, Gothic or Block  
1.9 cm (3/4 inch) Sans Serif, Gothic or Block  
14 Point Gothic

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

F.3.5 For all Asbestos Containing Waste Material transported off the facility site:

- (a) Maintain waste shipment records, using the most current revision of Agency Form ASB-23 to provide the following information:
  - (1) The name, address, and telephone number of the waste generator.
  - (2) The approximate quantity in cubic meters (cubic yards).
  - (3) The name and telephone number of the disposal site operator.
  - (4) The name and physical site location of the disposal site.
  - (5) The date transported.
  - (6) The name, address, and telephone number of the transporter(s).
  - (7) A certification that the contents of this consignment are fully and adequately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

- (b) Provide a copy of the waste shipment record, described in Paragraph F.3.5(a), to the disposal site owners or operators at the same time as the Asbestos Containing Waste Material is delivered to the waste disposal site.
- (c) For waste shipments where a copy of the waste shipment record, signed by the owner or operator of the designated disposal site, is not received by the waste generator within 35 days of the date the waste was accepted by the initial transporter, contact the transporter and/or the owner or operator of the designated disposal site to determine the status of the waste shipment.
- (d) Report in writing to the Agency if a copy of the waste shipment record, signed by the owner or operator of the designated waste disposal site, is not received by the waste generator within 45 days of the day the waste was accepted by the initial transporter. Include in the report the following information:
  - (1) A copy of the waste shipment record for which a confirmation of delivery was not received; and
  - (2) A cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.
- (e) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least 2 years.

#### F.3.6 ***Recordkeeping***

The owner or operator of a demolition or renovation activity subject to Part F of these regulations shall furnish upon request, and make available for inspection by the Agency, all records required under this subpart.