Chapter 1
Asbestos Control Program

Subchapter	A	Scope, Application, Definitions and Variances
	B	Certification Provisions
	C	Notifications, Permitting and Recordkeeping
	D	Air and Bulk Sampling, Monitoring and Analysis
	E	Personnel Protection and Equipment Specifications
	F	Asbestos Project Procedures
	G	Pre-Demolition Abatement Activity Procedures

Subchapter A

Scope, Application, Definitions and Variances

§ 1-01 Scope and Application
§ 1-02 Definitions
§ 1-03 Variances

§ 1-01 Scope and Application. (a) The following asbestos control program rules, § 1-01 et seq., shall apply to all asbestos abatement activities occurring within the City of New York.

(b) Every owner of a building where asbestos abatement activity occurs shall be responsible for the performance of the asbestos abatement activities by his/her agent, contractor, employee, or other representative.

(c) Every contractor and worker engaged in asbestos abatement activities shall comply with the provisions of this chapter except as otherwise specified.

(d) Every investigator engaged to identify the presence and evaluate the condition of asbestos in a building or structure shall comply with the provisions of this chapter except as otherwise specified.

(e) No person shall knowingly make a false statement or submit a false document to the Department as to any matter concerning an asbestos project or any document required to be filed under these rules.

(f) The department may inspect at a reasonable time and in a reasonable manner anything which affects or may affect the emission or release of asbestos fibers or the disturbance of asbestos-containing material, including but not limited to the premises where an asbestos project is being conducted, or the premises for which a notification has been filed under § 1-21 – § 1-26 of these Rules, or the premises where an application has been filed with the Department of Buildings for a plan or permit approval.

(g) No person shall interfere with or obstruct any employee of the Department in the performance of their official duties, including but not limited to the performance of inspections.

(h) No person who holds a certificate issued pursuant to these rules shall engage in unprofessional conduct. Unprofessional conduct shall include but is not limited to:

(1) Failure to comply with provisions of Federal, State or local laws, rules, or regulations.
(2) Conduct in asbestos inspections, assessment, abatement activities, air sampling, etc. which evidences moral unfitness.
(3) Making or filing a false report, or failing to file a report required by these rules or impeding or obstructing such filing, or inducing another person to do so.

(i) The size (amount of material to be disturbed or, in the case of cleanups, the dimensions of the area to be cleaned) and scope of the overall project shall control the notification to be filed and work procedures to be followed. The requirements set forth in these rules may not be avoided or lessened through the performance of work in increments or piecemeal fashion.

(j) (1) Any person, including but not limited to contractors, building owners, and air monitoring companies, who is in violation of or fails to comply with any provision of these rules or the terms and conditions of any variance issued pursuant to these rules shall be subject to the issuance of notice(s) of violation and other civil and criminal enforcement actions pursuant to Title 24, Chapter 1, Subchapter 9 of the Administrative Code of the City of New York.

(2) The maximum civil penalty for any violation of a lettered subsection of these rules, pursuant to a notice of violation returnable before the Environmental Control Board, shall be $10,000, except that a violation of section 1-26 shall carry a maximum penalty of $15,000.

(3) DEP may deny any application for an asbestos abatement permit pursuant to section 1-26 of these rules, or a variance application pursuant to section 1-03 of these rules, where any party to the asbestos project, including but not limited to the abatement contractor, building owner, and air monitoring company, has docketed, unpaid civil penalties imposed by the Environmental Control Board for violations of these rules, sections 24-146.1 and 24-146.3 of the Administrative Code, or NYSDOL ICR 56.

§ 1-02 Definitions.

Abatement. "Abatement" shall mean any and all procedures physically taken to control fiber release from asbestos-containing materials. This includes removal, encapsulation, enclosure, cleanup and repair.

Abatement activities. "Abatement activities" shall mean all activities from the initiation of work area preparation through successful clearance air monitoring performed at the conclusion of an asbestos project or minor project.

Adequately wet. "Adequately wet" shall mean the complete penetration of a material with amended water to prevent the release of particulates. If visible emissions are observed coming

from asbestos-containing material, then the material has not been adequately wetted. However, the absence of visible emissions is not evidence of being adequately wet. ACM must be fully penetrated with the wetting agent in order to be considered adequately wet. If the ACM being abated is resistant to amended water penetration, wetting agent shall be applied to the material prior to and during removal as necessary to minimize fiber release.

Aggressive sampling. "Aggressive sampling" shall mean a method of sampling in which the individual collecting the air sample creates activity by the use of mechanical equipment during the sampling period to stir up settled dust and simulate activity in that area of the building.

AHERA. "AHERA" shall mean the Asbestos Hazard Emergency Response Act of 1986.

AIHA. "AIHA" shall mean the American Industrial Hygiene Association.

Airlock. "Airlock" shall mean a system for permitting entrance and exit while restricting air movement between a contaminated area and an uncontaminated area. It consists of two curtained doorways separated by a distance of at least three feet such that one passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow-through contamination.

Air sampling. "Air sampling" shall mean the process of measuring the fiber content of a known volume of air collected during a specific period of time. The procedure utilized for asbestos follows the NIOSH Standard Analytical Method 7400 or the provisional transmission electron microscopy methods developed by the USEPA and/or National Institute of Science and Technology which are utilized for lower detectability and specific fiber identification.

Ambient air monitoring. "Ambient air monitoring" shall mean measurement or determination of airborne asbestos fiber concentrations outside but in the general vicinity of the worksite.

Amended water. "Amended water" shall mean water to which a surfactant has been added.

ANSI. "ANSI" shall mean the American National Standards Institute.

Area air sampling. "Area air sampling" shall mean any form of air sampling or monitoring where the sampling device is placed at some stationary location.

Asbestos. "Asbestos" shall mean any hydrated mineral silicate separable into commercially usable fibers, including but not limited to chrysotile (serpentine), amosite (cumingtonite-grunerite), crocidolite (riebeckite), tremolite, anthrophyllite and actinolite.

Asbestos-containing material. "Asbestos-containing material**" (**ACM) shall mean asbestos or any material containing more than one percent asbestos.

Asbestos-containing waste material. "Asbestos-containing waste material" shall mean asbestos-containing material or asbestos-contaminated objects requiring disposal.

Asbestos-contaminated objects. **"**Asbestos-contaminated objects" shall mean any objects which have been contaminated by asbestos or asbestos-containing material.

Asbestos assessment report. "Asbestos assessment report" shall mean the "Form ACP-5" form, as approved by DEP, by which a DEP-certified asbestos investigator certifies that a building or structure (or portion thereof) is free of ACM or the amount of ACM to be abated constitutes a minor project.

Asbestos handler. "Asbestos handler" shall mean an individual certified by the Department who disturbs, removes, encapsulates, repairs, or encloses asbestos material.

Asbestos handler supervisor. "Asbestos handler supervisor" shall mean an individual certified by the Department who supervises the handlers during an asbestos project and ensures that proper asbestos abatement procedures as well as individual safety procedures are being adhered to.

Asbestos project notification. "Asbestos project notification" shall mean the "Form ACP-7" asbestos project notification form as approved by DEP.

Asbestos investigator. "Asbestos investigator" shall mean an individual certified by the Commissioner as having satisfactorily demonstrated his or her ability to identify the presence and evaluate the condition of asbestos in a building or structure.

Asbestos project. "Asbestos project" shall mean any form of work performed in a building or structure which will disturb (e.g., remove, enclose, encapsulate) more than 25 linear feet or more than 10 square feet of asbestos-containing material.

ASTM. "ASTM" shall mean the American Society For Testing and Materials.

Authorized visitor. "Authorized visitor" shall mean the building owner and his/her representative, and any representative of a regulatory or other agency having jurisdiction over the project.

Building owner. "Building owner" shall mean the person in whom legal title to the premises is vested unless the premises are held in land trust, in which instance building owner means the person in whom beneficial title is vested.

Building materials. "Building materials" shall mean any and all manmade materials, including but not limited to interior and exterior finishes, equipment, bricks, mortar, concrete, plaster, roofing, flooring, caulking, sealants, tiles, insulation, and outdoor paving such as sidewalks, paving tiles and asphalt.

Certified industrial hygienist. "Certified industrial hygienist" (CIH) shall mean an individual who is currently certified by] the American Board of Industrial Hygiene.

Certified safety professional (CSP). "Certified safety professional" (CSP) shall mean an individual having a bachelor's degree from an accredited college or university and a minimum

of four years experience as a safety professional and who has successfully completed both levels of the examination administered by the Board of Certified Safety Professionals and who is currently certified by that Board.

Chain of custody. "Chain of custody" shall mean the form or set of forms that document the collection and transfer of a sample.

Clean room. "Clean room" shall mean an uncontaminated area or room which is part of the worker decontamination enclosure system with provisions for storage of workers' street clothes and protective equipment.

Clearance air monitoring. "Clearance air monitoring" shall mean the employment of aggressive sampling techniques with a volume of air collected to determine the airborne concentration of residual fibers, and shall be performed as the final abatement activity.

Commissioner. "Commissioner" shall mean the Commissioner of the New York City Department of Environmental Protection.

Contractor. "Contractor" shall mean a public authority or any other governmental agency or instrumentality thereof, self-employed person, company, unincorporated association, firm, partnership or corporation and any owner or operator thereof, which engages in an asbestos project or employs persons engaged in an asbestos project.

Curtained doorway. "Curtained doorway" shall mean a device which consists of at least three overlapping sheets of fire retardant plastic over an existing or temporarily framed doorway. One sheet shall be secured at the top and left side, the second sheet at the top and right side, and the third sheet at the top and left side. All sheets shall have weights attached to the bottom to ensure that the sheets hang straight and maintain a seal over the doorway when not in use.

Decontamination enclosure system. "Decontamination enclosure system" shall mean a series of connected rooms, separated from the work area and from each other by air locks, for the decontamination of workers, materials, waste containers, and equipment.

Demolition. "Demolition" shall mean the dismantling or razing of a building, including all operations incidental thereto (except for asbestos abatement activities), for which a demolition permit from the New York City Department of Buildings is required.

Department or DEP. "Department" or "DEP" shall mean the New York City Department of Environmental Protection.

Disturb. "Disturb" shall mean any action taken which may alter, change, or stir, such as but not limited to the removal, encapsulation, enclosure or repair of asbestos-containing material.

DOB. "DOB" shall mean the New York City Department of Buildings.

ELAP. "ELAP" shall mean the Environmental Laboratory Approval Program administered by the New York State Department of Health.

Encapsulant (sealant) or encapsulating agent. "Encapsulant (sealant) or encapsulating agent" shall mean liquid material which can be applied to asbestos-containing material which temporarily controls the possible release of asbestos fibers from the material or surface either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant). A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement , including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.

Encapsulation. "Encapsulation" shall mean the coating or spraying of asbestos-containing material encapsulant. A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement , including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.

Enclosure. "Enclosure" shall mean the construction of airtight walls and ceilings between the ACM and the facility environment, or around surfaces coated with ACM, or any other appropriate procedure as determined by the Department which prevents the release of asbestos fibers.

EPA. "EPA" or "USEPA" shall mean the United States Environmental Protection Agency.

Equipment room. "Equipment room" shall mean a contaminated area or room which is part of the worker decontamination enclosure system with provisions for the storage of contaminated clothing and equipment.

Exit. "Exit" shall mean that portion of a means of egress system which is separated from other interior spaces of a building or structure by fire-resistance-rated construction to provide a protected path of egress travel between the exit access and the exit discharge.

FDNY. "FDNY" shall mean the Fire Department of the City of New York.

Fiber. "Fiber" shall mean an acicular single crystal or a similarity elongated polycrystalline aggregate which displays some resemblance to organic fibers by having such properties as flexibility, high aspect ratio, silky luster, axial lineation, and others, and which has attained its shape primarily through growth rather than cleavage.

Fixed object. "Fixed object" shall mean a unit of equipment, furniture, or other item in the work area which cannot be removed from the work area. Fixed objects shall include equipment, furniture, or other items that are attached, in whole or in part, to a floor, ceiling, wall, or other building structure or system or to another fixed object and cannot be reasonably removed from the work area. Fixed objects shall also include pipes and other equipment inside the work area which are not the subject of the asbestos project. Active fire suppression system components shall not be considered fixed objects.

Glovebag technique. "Glovebag technique" shall mean a method for removing

asbestos-containing material from heating, ventilation and air conditioning (HVAC) ducts, short piping runs, valves, joints, elbows, and other nonplanar surfaces. The glovebag assembly is a manufactured device consisting of a large bag (constructed of at least 6-mil transparent plastic), two inward-projecting long sleeve gloves, one inward-projecting waterwand sleeve, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and contains all asbestos fibers released during the removal process.

HEPA filter. "HEPA filter" shall mean a high efficiency particulate air filter capable of trapping and retaining 99.97 percent of particles (asbestos fibers) greater than 0.3 micrometers mass median aerodynamic equivalent diameter.

HEPA vacuum equipment. "HEPA vacuum equipment" shall mean vacuuming equipment with a HEPA filter.

Holding area. "Holding area" shall mean a chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area.

Homogeneous work area. "Homogeneous work area" shall mean a portion of the work area which contains one type of asbestos-containing material and/or where one type of abatement is used.

Industrial hygiene. "Industrial hygiene" shall mean that science and art devoted to the recognition, evaluation and control of those environmental factors or stresses, arising in or from the work place, which may cause sickness, impaired health and well being, or significant discomfort and inefficiency among workers or among the citizens of the community.

Industrial hygienist. "Industrial hygienist" shall mean an individual having a college or university degree or degrees in engineering, chemistry, physics, or medicine or related biological sciences who, by virtue of special studies and training, has acquired competence in industrial hygiene.

Isolation barrier. "Isolation barrier" shall mean the construction of partitions, the placement of solid materials, and the plasticizing of apertures to seal off the work place from surrounding areas and to contain asbestos fibers in the work area.

Large asbestos project. "Large asbestos project" shall mean an asbestos project involving the disturbance (e.g., removal, enclosure, encapsulation) of 260 linear feet or more of asbestos-containing material or 160 square feet or more of asbestos-containing material.

Log. "Log" shall mean an official record of all activities that occurred during the project. At a minimum, the log shall identify the building owner, agent, contractor, and workers, and other pertinent information including daily activities, cleanings and waste transfers, names and certificate numbers of asbestos handler supervisors and asbestos handlers; results of inspections of decontamination systems, barriers, and negative pressure ventilation equipment; summary of corrective actions and repairs; work stoppages with reason for stoppage; manometer readings at least twice per work shift; daily checks of emergency and fire exits and any unusual events.

Means of egress. "Means of egress" shall mean a continuous and unobstructed path of vertical and horizontal egress travel from any occupied portion of a building or structure to a public way. A means of egress consists of three separate and distinct parts: the exit access, the exit and the exit discharge.

Minor project. "Minor project" shall mean a project involving the disturbance (e.g. removal, enclosure, encapsulation, repair) of 25 linear feet or less of asbestos containing material or 10 square feet or less of asbestos containing material.

Movable object. "Movable object" shall mean a unit of equipment or furniture in the work area which can be removed from the work area.

Negative air pressure equipment. "Negative air pressure equipment" shall mean a portable local exhaust system equipped with HEPA filtration. The system shall be capable of creating a negative pressure differential between the outside and inside of the work area.

NFPA. "NFPA" shall mean the National Fire Protection Association.

NIOSH. "NIOSH" shall mean the National Institute for Occupational Safety and Health.

NYSDOL. "NYSDOL" shall mean the New York State Department of Labor.

NYSDOL ICR 56. "NYSDOL ICR 56" shall mean Part 56 of the Official Compilation of Codes, Rules and Regulations of the State of New York or 12 NYCRR Part 56.

NYSDOH. "NYSDOH" shall mean the New York State Department of Health.

Obstruction. "Obstruction" shall mean the blocking of a means of egress with any temporary structure or barrier. A double layer of fire-retardant 6-mil polyethylene sheeting shall not be considered an obstruction when it is prominently marked as an exit with photoluminescent signage or paint and cutting tools (knife, razor) are attached to the work area side of the sheeting for use in the event that the sheeting must be cut to permit egress. A corridor shall not be considered obstructed when there is a clear path measuring at least three (3) feet wide.

Occupied Area. "Occupied area" shall mean an area of the worksite where abatement is not taking place and where personnel or occupants normally function or where workers are not required to use personal protective equipment.

OSHA. "OSHA" shall mean the United States Occupational Safety and Health Administration.

Outside air. "Outside air" shall mean the air outside the work place.

Person. "Person" means any individual, partnership, company, corporation, association, firm, organization, governmental agency, administration or department, or any other group of individuals, or any officer or employee thereof.

Personal air monitoring. "Personal air monitoring" shall mean a method used to determine employees' exposure to airborne fibers. The sample is collected outside the respirator in the worker's breathing zone.

Personal protective equipment. "Personal protective equipment" (PPE) shall mean appropriate protective clothing, gloves, eye protection, footwear, head gear.

Phase contrast microscopy. "Phase contrast microscopy" (PCM) shall mean the measurement protocol for the assessment of the fiber content of air. (NIOSH Method 7400).

Physician. "Physician" shall mean an individual licensed or otherwise authorized under Article 131 §65.22 of the New York State Education Law.

Plasticize. "Plasticize" shall mean to cover floors and walls with fire retardant plastic sheeting as herein specified or by using spray plastics as acceptable to the Department.

Polarized light microscopy. "Polarized light microscopy" (PLM) shall mean the measurement protocol for the assessment of the asbestos content of bulk materials. (Interim Method for the Determination of Asbestiform Materials in Bulk Insulation Samples- 40 CFR Part 763, Subpart F, Appendix A as amended on September 1, 1982)

Project designer. "Project designer" shall mean a person who holds a valid Project Designer Certificate issued by the New York State Department of Labor.

Project monitor. "Project monitor" shall mean a person who holds a valid Project Monitor Certificate issued by the New York State Department of Labor.

Qualitative fit test. "Qualitative fit test" shall mean the individual test subject's responding (either voluntarily or involuntarily) to a chemical challenge outside the respirator face piece. Acceptable methods include irritant smoke test, odorous vapor test, and taste test.

Quantitative fit test. "Quantitative fit test" shall mean exposing the respirator wearer to a test atmosphere containing an easily detectable, nontoxic aerosol, vapor or gas as the test agent. Instrumentation, which samples the test atmosphere and the air inside the face piece of the respirator, is used to measure quantitatively the leakage into the respirator. There are a number of test atmospheres, test agents, and exercises to perform during the tests.

Registered design professional. "Registered design professional" shall mean a person licensed and registered to practice the professions of architecture or engineering under the Education Law of the State of New York.

Removal. "Removal" shall mean the stripping of any asbestos-containing materials from surfaces or components of a facility or taking out structural components in accordance with 40 CFR 61 Subparts A and M.

Renovation. "Renovation" shall mean an addition or alteration or change or modification of a building or the service equipment thereof, that is not classified as an ordinary repair as defined in §27-125 of the Administrative Code of the City of New York.

Repair. "Repair" shall mean corrective action using specified work practices e.g. glovebag, plastic tent procedures, etc. to minimize the likelihood of fiber release from minimally damaged areas of ACM.

Replacement material. "Replacement material" shall mean any material used to replace ACM that contains less than .01 percent asbestos.

Shift. "Shift" shall mean a worker's, or simultaneous group of workers', complete daily term of work.

Shower room. "Shower room" shall mean a room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold running water controllable at the tap and arranged for complete showering during decontamination.

Small asbestos project. "Small asbestos project" shall mean an asbestos project involving the disturbance (e.g., removal, enclosure, encapsulation) of more than 25 and less than 260 linear feet of asbestos-containing material or more than 10 and less than 160 square feet of asbestos-containing material.

Staging area. "Staging area" shall mean the work area near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the work area.

Strip. "Strip" shall mean to remove asbestos materials from any part of the facility.

Structural member. "Structural member" shall mean any load-supporting member of a facility, such as beams and load-supporting walls, or any nonload-supporting member, such as ceiling and nonload-supporting walls.

Surface barriers. "Surface barriers" shall mean the plasticizing of walls, floors, and fixed objects within the work area to prevent contamination from subsequent work.

Surfactant. "Surfactant" shall mean a chemical wetting agent added to water to improve penetration.

Transmission electron microscopy (TEM). "Transmission electron microscopy (TEM)" shall mean the measurement protocol for the assessment of the asbestos fiber content of air. (Interim Transmission Electron Microscopy Analytical Methods-40 CFR Part 763, Subpart E, Appendix A)

Visible emissions. "Visible emissions" shall mean any emissions containing particulate material that are visually detectable without the aid of instruments.

Washroom. "Washroom" shall mean a room between the work area and the holding

area in the equipment decontamination enclosure system where equipment and waste containers are wet cleaned and/or HEPA vacuumed prior to disposal.

Waste decontamination enclosure system. "Waste decontamination enclosure system" shall mean the decontamination enclosure system designated for the controlled transfer of materials and equipment, consisting of a washroom and a holding area.

Wet cleaning. "Wet cleaning" shall mean the removal of asbestos fibers from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water.

Wet methods. "Wet methods" shall mean the use of amended water or removal encapsulants to minimize the generation of fibers during ACM disturbance.

Work area. "Work area" shall mean designated rooms, spaces, or areas of the building or structure where asbestos abatement activities take place. For glovebag procedures, the work area shall also include the areas contiguous to where the procedure takes place

Worker. "Worker" shall mean asbestos handler and/or asbestos handler supervisor.

Worker decontamination enclosure system. "Worker decontamination enclosure system" shall mean that portion of a decontamination enclosure system designed for controlled passage of workers, and other individuals and authorized visitors, consisting of a clean room, a shower room, and an equipment room separated from each other and from the work area by airlocks and curtained doorways.

Work place. "Work place" shall mean the work area and the decontamination enclosure system(s).

Work place safety plan. "Work place safety plan" shall mean construction documents prepared by a registered design professional and submitted for review by DEP in order to obtain an asbestos abatement permit. Such plan shall include, but not be limited to, plans, sections, and details of the work area clearly showing the extent, sequence, and means and methods by which the work is to be performed.

Work site. "Work site" shall mean premises where asbestos abatement activity is taking place, and may be composed of one or more work areas.

§1-03 Variances. (a) Application for any variance from these rules or Part 56 of Title 12 of New York Codes, Rules and Regulations (Subparts 56-4 through 56-17) shall be made directly to the Department at least two weeks prior to the commencement of work. Work involving a variance may not commence prior to the receipt of the Department's approval of the application.

(b) The Department's "Asbestos Variance Application" (ACP-9) form shall be prepared by a project designer and submitted by the building owner or authorized agent, and shall include the following information:

(1) Identification of those portions of the rules for which a variance is requested, providing each numbered section and subsection;

(2) Explanations as to why the procedures required by the rules cannot be used;

(3) A written proposal setting forth the alternative procedures the applicant will employ to satisfy each requirement as modified; and

(4) A copy of any asbestos project notification previously filed. If the applicant has not previously filed an asbestos project notification, such notification shall be filed with the application together with the applicable fee specified in §1-25(c).

(5) A sketch or drawing illustrating the proposed modification.

(c) For each variance application where the combined amount (total of both square and linear feet on the ACP-7) of ACM is less than 5000 feet, payment of the variance processing fee shall accompany the application and shall conform with the payment schedule as follows:

1) Request to modify no more than one lettered subsection in any section category listed in subsection (e) below: $400 fee.

(2) For each additional subsection in any category listed in subsection (e): $200 fee.

(3) The maximum fee: $1200.

(d) For each variance application where the combined amount (total of both square and linear feet on the ACP-7) of ACM is greater than or equal to 5000 feet, payment of the variance processing fee shall accompany the application and shall conform with the payment schedule as follows:

(1) Request to modify no more than one lettered subsection in any section category listed in subsection (e): $600.

(2) For each additional subsection in any category listed in subsection (e): $300.

(3) The maximum fee: $1800.

(e) Section categories shall be as follows:

CATEGORY	NYC Asbestos Control	12 NYCRR Part 56 Section #s

	Program Section #s	
Air Monitoring	31-45	56-4,6
Materials and Equipment	61	56-7
Work Place Preparation	81-84	56-7
Work Place Procedures	91-94	56-7
Abatement Procedures	101-110	56-8
Clean-up Procedures	111-112	56-9
Pre-Demolition Abatement Activity Procedures	120-129	---

(f) Any variance from the prohibition on concurrent abatement and full demolition or story removal set forth in section 1-126 shall only be approved after notification and consultation with FDNY and DOB.

(g) Any violation of the terms of any variance issued under this section shall be considered a violation of the lettered subdivision modified by the variance.

Subchapter B

Certification Provisions

Part 1 Certification Procedures

Part 1
Certification Procedures

§1-11 Asbestos Handler Certificate
§1-12 Renewal of Asbestos Handler Certificate

§1-13 Restricted Asbestos Handler Certificate
§1-14 Asbestos Handler Supervisor Certificate
§1-15 Renewal of Asbestos Handler Supervisor Certificate
§1-16 Asbestos Investigator Certificate
§1-17 Renewal of Asbestos Investigator Certificate

§1-11 Asbestos Handler Certificate. (a) No individual shall engage in an asbestos project or in asbestos abatement activities on a minor project, for compensation, unless that individual is certified as an asbestos handler by the department and has an "Asbestos Handler Certificate" issued by the department which shall be available at the work place.

(b) The department shall issue an asbestos handler certificate in the form of a photo identification card which shall be valid for two years from the date of issuance to applicants who meet the following conditions:

(1) Applicant shall be at least eighteen (18) years of age at the date of application; and

(2) Applicant shall submit a completed application provided by the department accompanied by a fee of one hundred dollars ($100); and

(3) Applicant shall submit documentation of successful completion within the prior 12 months of a NYSDOH-approved Asbestos Handler training course; and

(4) Applicant shall achieve a passing grade on a departmental examination.

(c) An applicant denied a certificate on any grounds other than failure to complete a certificate application or failure to meet the minimum requirements set forth in these rules may request a hearing before the commissioner or his/her designee to contest said denial by submitting a written request for such hearing within ten days of receipt of denial.

§ 1-12 Renewal of Asbestos Handler Certificate. (a) The handler shall apply for renewal of the certificate at least 60 days prior to the date of its expiration**.**

(b) Application for renewal shall be made on a form approved by the department and shall be accompanied by a fee of one hundred dollars ($100) and proof of successful completion within the prior 12 months of a NYSDOH-approved Asbestos Handler Refresher training course; and

(c) An applicant denied a certificate on any grounds other than failure to complete a certificate application or failure to meet the minimum requirements set forth in these rules may request a hearing before the commissioner or his/her designee to contest said denial by submitting a written request for such hearing within ten days of receipt of denial.

(d) In the event that an asbestos handler certificate is lost or stolen, the certificate holder must immediately notify the department. An application for a replacement shall be made in writing and shall include a notarized statement that the certificate was lost or stolen, a statement that the

applicant understands that submittal of a false statement shall subject him or her to penalties and other remedies under the law, and a fee of $50.

§1-13 Restricted Asbestos Handler Certificate. (a) This section shall apply to individuals involved in the construction of the containment barriers of a work area (e.g., carpenters), or who otherwise enter the contained work area for a limited period of time to perform certain specialized tasks in preparation for, or ancillary to, the actual abatement (e.g., electricians); and for whom asbestos handler certification would otherwise be required. This section shall not apply to individuals performing abatement handling of ACM.

(b) The department shall issue a restricted asbestos handler certificate, in the form of a photo identification card which shall be valid for two years from the date of issuance to applicants who comply with the requirements of §1-11(b)(1)-(4), except that the fee shall be $50.

(c) An individual certified as a restricted asbestos handler by the department shall perform only those particular job functions specified by the department in the application for certification.

§1-14 Asbestos Handler Supervisor Certificate. (a) No individual shall supervise asbestos handlers engaged in an asbestos project, for compensation, unless that individual is certified as an asbestos handler supervisor by the department.

(b) The department shall issue an asbestos handler supervisor certificate, in the form of a photo identification card which shall be valid for two years from the date of issuance, to applicants who meet the following conditions:

(1) Applicant shall be at least twenty-one (21) years of age at the time of application; and

(2) Applicant shall submit a completed application provided by the department accompanied by a fee of one hundred dollars ($100); and

(3) Applicant shall submit documentation of successful completion within the prior 12 months of a NYSDOH-approved Asbestos Supervisor training course.

(4) Applicant shall submit additional credentials as follows:

(i) Aregistered design professional, certified industrial hygienist, or certified safety professional shall submit a copy of the licensing credentials or certification, and documentation of one month post-graduate experience in asbestos abatement activities.

(ii) A graduate from an accredited college or university possessing a bachelor's or advanced degree in engineering, architecture, environmental health science, industrial hygiene, occupational health and safety or a related science shall submit a copy of the degree, and documentation of three

months post graduate experience in asbestos abatement activities.

(iii) A graduate from an accredited college of university possessing an associate's degree in applied science and technology, environmental health science, public health, industrial health or a related science shall submit a copy of the degree, and documentation of six months post-graduate experience in asbestos abatement activities.

(iv) All other applicants shall submit documentation of one year of experience in asbestos abatement activities.

The applicant's experience in asbestos abatement activities shall be listed chronologically and shall include each contractor's name/address/phone number; the number of hours worked per week on asbestos abatement activities; the applicant's job title and a brief description of duties; and

(5) Applicant shall achieve a passing grade on a departmental examination.

(c) The department may consider applicants who submit additional credentials which are not identical to the categories specified in subdivision (b)(4) above, but who present an equivalent combination of familiarity with abatement activities and demonstrated competence.

(d) An applicant denied a certificate on any grounds other than failure to complete a certificate application or failure to meet the minimum requirements set forth in these rules may request a hearing before the commissioner or his/her designee to contest said denial by submitting a written request for such hearing within ten days of receipt of denial.

§1-15 Renewal of Asbestos Handler Supervisor Certificate. (a) The supervisor shall apply for renewal of the certificate at least 60 days prior to the date of its expiration.

(b) The supervisor shall submit the following items for renewal:

(1) A completed application provided by the department accompanied by a fee of $100; and

(2) Documentation of successful completion within the prior 12 months of a NYSDOH-approved Asbestos Handler Supervisor Refresher training course.

(c) An applicant denied a certificate on any grounds other than failure to complete a certificate application or failure to meet the minimum requirements set forth in these rules may request a hearing before the commissioner or his/her designee to contest said denial by submitting a written request for such heading within ten days of receipt of denial.

(d) In the event that an asbestos handler supervisor certificate is lost or stolen, the certificate holder must immediately notify the department. An application for a replacement shall be made in writing and shall include a notarized statement that the certificate was lost or stolen, a statement that the applicant understands that submittal of a false statement shall subject him or her to penalties and other remedies under the law, and a fee of $50.

§1-16 Asbestos Investigator Certificate. (a) (1) No individual shall engage in building survey and hazard assessment for asbestos unless that individual is certified as an asbestos investigator by the department.

(2) A non-certified individual may participate in an asbestos survey being conducted by a NYC certified investigator only if such individual works in the presence of the investigator and under his/her direct and continuing supervision.

(3) The investigator shall assume that some or all of the areas investigated contain ACM, and for each area that is not assumed to contain ACM, collect and submit for analysis bulk samples in accordance with §§1-36, 1-37 and 1-44 and EPA publications 560/5-85-024 and 560/5-85-030A, and 40 CFR Part 763.86.

(b) The department shall qualify applicants to be asbestos investigators. The applicant shall satisfy one of the following five sets of conditions:

(1) A registered design professional, a certified industrial hygienist or a certified safety professional shall submit a copy of licensing credentials or certification.

(2) A graduate from an accredited college or university possessing a doctorate or master's degree in architecture, engineering, environmental science, environmental health science, occupational health and safety, industrial hygiene or related environmental science shall submit a copy of the degree and documentation of six months post-graduate experience in building survey/hazard assessment for asbestos.

(3) A graduate from an accredited college or university possessing a bachelor's degree in architecture, engineering, environmental science, environmental health science, occupational health and safety, industrial hygiene or a related environmental science shall submit a copy of the degree and documentation of one year post-graduate experience in building survey/hazard assessment for asbestos.

(4) A graduate from an accredited college or university possessing an associate's degree in architecture, engineering technology, environmental health, public health, industrial health, applied science and technology or a related environmental science shall submit a copy of the degree and documentation of one year post-graduate experience in building survey/hazard assessment for asbestos and an additional two years of building survey-related experience.

(5) An individual with extensive experience in asbestos investigation on a professional level shall submit documentation demonstrating two years of experience in building survey/hazard assessment for asbestos and an additional three years of other building survey-related experience.

(c) The department shall issue an asbestos investigator certificate in the form of a photo identification card which shall be valid for two years from the date of issuance to qualified

applicants who submit the following:

(1) A completed application provided by the Department accompanied by a fee of two hundred fifty dollars ($250); and

(2) Documentation of successful completion within the prior 12 months of a New York State Restricted Asbestos Handler-III Inspector Training course, and a passing grade on the required investigator training course; and

(3) Documentation of a medical examination performed by a physician within the prior 12 months, which shall include at a minimum a pulmonary function test, evaluation of a recent chest x-ray and a physician's recommendation as to whether the applicant is able to wear a respirator in the performance of his/her job; and

(4) Documentation of a qualitative or quantitative fit test performed within the prior three months, which shall include brand name and type of respirator, date and location of test, and the signature of the industrial hygienist administering the test.

(i) Qualitative fit test may be used only for fit testing of half-mask negative pressure respirators.

(ii) Quantitative fit test shall be performed on all full-face negative pressure respirators.

(d) Applicant shall achieve a passing grade on a departmental examination.

(e) Under special circumstances the department may consider applicants who submit additional credentials which are not identical to the categories specified in subdivision (b)(1) through (5) above.

(f) An applicant denied a certificate on any grounds other than failure to complete a certificate application or failure to meet the minimum requirements set forth in these rules may request a hearing before the commissioner or his/her designee to contest said denial by submitting a written request for such hearing within ten days of receipt of denial.

(g) A person who possesses an asbestos investigator certificate shall be responsible for the proper execution of his or her duties. Unprofessional conduct is prohibited. Unprofessional conduct shall include but is not limited to:

(1) Failing to comply with the provisions of Federal, State, or local laws, rules or regulations.

(2) Making or filing a false report, or failing to file a report required by Federal, State, or local laws, rules, or regulations.

(3) Delegating professional responsibilities to a person who is not qualified to perform them.

(h) *Investigator's seal requirement*. (1) No NYC-certified asbestos investigator shall submit any plan or report to any client or any city, state, or federal agency that does not have the investigator's seal and signature affixed to it. Photocopies of the seal and signature are not acceptable.

(2) Seals used by certified asbestos investigators shall be circular in shape, approximately one and three quarter inches in diameter, with three concentric circles. The inner circle shall contain an accurate representation of the great seal of the City of New York. The legend at the top of the outer band shall read "CITY OF NEW YORK" and at the bottom "CERTIFIED ASBESTOS INVESTIGATOR". In the inner circle above the great seal of the City of New York shall be shown the name of the certified asbestos investigator.

(3) Any plan or report submitted without the investigator's seal and signature shall be considered invalid.

(4) Use of personal valid "professional engineer" or "registered architect" seal in lieu of investigators' seal by certified investigators is allowed.

§1-17 Renewal of Asbestos Investigator Certificate. (a) The investigator shall apply for renewal of the certificate at least 60 days prior to the date of its expiration.

(b) The investigator shall submit the following items for renewal:

(1) A completed application provided by the Department accompanied by a fee of $250 payable to the Department; and

(2) Documentation of successful completion within the prior 12 months of a NYSDOH-approved Asbestos Inspector Refresher course; and

(3) Documentation of a medical examination performed by a physician within the prior 12 months, which shall include at a minimum a pulmonary function test, evaluation of a recent chest x-ray and a physician's recommendation as to whether the applicant is able to wear a respirator in the performance of his/her job; and

(4) Documentation of a qualitative or quantitative fit test performed within the prior three months, which shall include brand name and type of respirator, date and location of test, and the signature of the industrial hygienist administering the test.

(i) Qualitative fit test may be used only for fit testing of half-mask negative pressure respirators.

(ii) Quantitative fit test shall be performed on all full-face negative pressure respirators.

(c) An applicant denied a certificate on any grounds other than failure to complete a certificate application or failure to meet the minimum requirements set forth in these rules may

request a hearing before the commissioner or his/her designee to contest said denial by submitting a written request for such hearing within ten days of receipt of denial.

(d) In the event that an asbestos investigator certificate is lost or stolen, the certificate holder must immediately notify the department. An application for a replacement shall be made in writing and shall include a notarized statement that the certificate was lost or stolen, a statement that the applicant understands that submittal of a false statement shall subject him or her to penalties and other remedies under the law, and a fee of $50.

Subchapter C

Notifications, Permitting and Recordkeeping

§1-21 Size and Scope of Asbestos Project
§1-22 Projects Requiring Certification to the Department of Buildings
§1-23 Alterations/Renovations/Modifications
§1-24 Reserved
§1-25 Asbestos Project Notifications
§1-26 Asbestos Abatement Permits
§1-27 Emergency Asbestos Project Notification
§1-28 Record Keeping Requirements for Investigators
§1-29 Maintenance of Project Record and Project Summary

§1-21 Size and Scope of Asbestos Project. (a) For the purpose of determining whether there has been compliance with any reporting or filing requirement established in §§1-22 through 1-27, the size and scope of the overall project shall control, with particular reference to the total amount of asbestos-containing material which will be disturbed. Such requirements may not lawfully be avoided or lessened through the performance of work in incremental or piecemeal fashion.

(b) When alternative calculations (i.e., linear feet and square feet) of the size and scope of an asbestos project result in that project coming within the definition of more than one sub-classification of asbestos project, the calculation with the higher absolute number shall determine the sub-classification of asbestos project procedures to be followed.

(c) For the purpose of §§1-21 through 1-27, the term "work" shall be understood as in the common construction usage, i.e. not specifically related to asbestos abatement activities.

§1-22 Projects Requiring Certification to the Department of Buildings. (a) This section shall apply to applications for the following projects requiring permits to be issued by the Department of Buildings:

(1) Full demolitions.

(2) Alterations, renovations, or modifications.

(3) Plumbing work, except that applications for limited plumbing alterations shall be subject to this section only when the application is for the installation, alteration, or removal of fuel-burning equipment.

(b) In accordance with section 28-106.1 of the Administrative Code, the building owner or his/her authorized agent shall submit one of the following certifications to the Department of Buildings:

(1) Asbestos Assessment Report. If the building (or portions thereof) affected by the work are free of asbestos-containing material or the amount of ACM to be abated constitutes a minor project, an asbestos assessment report (Form ACP-5) completed, signed, and sealed by a DEP-certified asbestos investigator, along with a fee of $25.00 shall be submitted to DOB prior to construction document approval and to any amendment of the construction document approval which increases the scope of the project to include (a) work area(s) not previously covered.

(2) Asbestos Exemption Certification. If the work is exempt pursuant to section 1-23(b) of these rules, an asbestos exemption certification (Form ASB4) completed, signed, and sealed by the applicant for a DOB permit shall be submitted to DOB prior to construction document approval and to any amendment of the construction document approval which increases the scope of the project to include (a) work area(s) not previously covered.

(3) Asbestos Project Completion Form. If an asbestos project has been performed and satisfactorily completed in accordance with these rules, a copy of the asbestos project completion form issued to the building owner or its authorized representative by DEP shall be submitted to DOB prior to the issuance of a DOB permit and to any amendment of the underlying construction document approval which increases the scope of the project to include (a) work area(s) not previously covered.

(4) An Asbestos Project Conditional Close-out Form. If an asbestos project has been performed but would be subject to the procedures of section 1-26(c)(2)(ii), a copy of the asbestos project conditional close-out form issued to the building owner or its authorized representative by DEP shall be submitted to DOB prior to the issuance of a DOB permit and to any amendment of the underlying construction document approval which increases the scope of the project to include (a) work area(s) not previously covered.

§1-23 Alterations/Renovations/Modifications. (a) As early as possible before an alteration, renovation, modification, demolition, or plumbing work takes place, or changes in such work occur, the building owner shall be responsible for determining the absence or presence of asbestos-containing material which may be disturbed during the course of the work. The owner of the building or authorized agent shall comply with the notification requirements of section 1-25 regarding asbestos-containing material.

(b) *Asbestos Exemption Certification (ASB4 Form).* Where the work to be performed

requires a permit to be issued by the Department of Buildings, an asbestos exemption certification (ASB4 Form) may be submitted to the Department of Buildings in accordance with section 1-22(b)(2) of these rules where the applicant for construction document approval certifies that:

(1) the permit sought does not involve the performance of any physical work, such as permits for zoning lot subdivisions, zoning lot reapportionment, or changes in the certificate of occupancy; or

(2) no existing building materials are to be disturbed by the proposed work.

(c) *Asbestos Assessment Report (ACP-5 Form).* If, after a survey performed by a DEP-certified asbestos investigator, it is determined that the building (or portion thereof) affected by the work is free of asbestos-containing material or the amount of ACM to be abated constitutes a minor project, said asbestos investigator shall complete, sign, and affix his or her seal to the asbestos assessment report (ACP-5 Form) which shall be submitted with an fee of $25.00 together with the appropriate Department of Buildings application forms to the Department of Buildings in accordance with section 1-22(b)(1) of these rules.

(d) Asbestos Project Completion Form. Where the work to be performed constitutes an asbestos project, an asbestos project notification (ACP-7 Form) shall be submitted to DEP in accordance with the provisions of section 1-25 of these rules. Upon completion of the asbestos project and submission of all required documentation to DEP, DEP shall issue an asbestos project completion form to the building owner or its authorized representative.

§1-24 Reserved

§1-25 Asbestos Project Notifications.

(a) This section shall apply to the following categories:

(1) Removal, encapsulation, enclosure or replacement of asbestos-containing materials (including insulation); and

(2) Work in or into plenum spaces of existing buildings (e.g. electrical, ventilation, cable, sheet metal work, etc.); and

(3) Removal of asbestos-covered structures and equipment such as boilers, pipes, etc.; and

(4) Other miscellaneous activities not previously exempted.

(b) *Work constituting a minor project.* If the work is a minor project, no notification or fee payable to the department shall be required, unless notification and fees are otherwise required by these regulations.

(c) *Asbestos Projects*. If the cumulative total of all surfaces affected by the work is an asbestos project, the department's asbestos project notification (ACP-7 Form) completed by the building owner or authorized agent, and listing each work area within the building separately, shall

be submitted directly to the department one week in advance of the start of the work along with a filing fee in the following amounts:

(1) For work which will disturb more than 25 linear feet but less than 100 linear feet, or more than 10 square feet but less than 50 square feet, of asbestos-containing material, the fee shall be $200.

(2) For work which will disturb at least 100 linear feet and less than 260 linear feet, or at least 50 square feet and less than 160 square feet, of asbestos-containing material, the fee shall be $400.

(3) For work which will disturb at least 260 linear feet and less than 1,000 linear feet, or at least 160 square feet and less than 1,000 square feet, of asbestos-containing material, the fee shall be $800.

(4) For work which will disturb 1,000 linear feet or more, or 1,000 square feet or more, of asbestos-containing materials, the fee shall be $1,200.

(d) Modification of or deviation from the information provided in any notification submitted to the DEP under this section shall immediately be reported in writing directly to DEP if the change refers to the identity of the building owner or ACM removal contractor or the air monitoring firm; or the amount of ACM to be removed; or the dates of the project; or the specific project location. A notification may be modified no more than twice, however, a modification related to the extension or reinstatement of an asbestos abatement permit shall not count towards this total. A modification is valid only if it is received by the DEP prior to the previously filed date of completion, except for start date changes which must be received by the original start date. Thereafter, a new notification submitted directly to the department will be required. Additional work, identified after the completion of the work indicated on the asbestos project notification and successful clearance air monitoring, shall require a new notification. A notification to DEP shall be valid for one year from the date of original filing.

§ 1-26 Asbestos Abatement Permit (a) *Permit required.* An asbestos abatement permit authorizing the performance of construction work shall be required for asbestos projects involving one or more of the following activities:

(1) Obstruction of an exit door leading to an exit stair or the exterior of the building;

(2) Obstruction of an exterior fire escape or access to that fire escape;

(3) Obstruction of a fire-rated corridor leading to an exit door;

(4) Removal of handrails in an exit stair or ramp within the work area;

(5) Removal or dismantling of any fire alarm system component including any fire alarm-initiating device (e.g., smoke detectors, manual pull station) within the work area;

(6) Removal or dismantling of any exit sign, including directional signs, or any component of the exit lighting system, including photoluminescent exit path

markings within the work area;

(7) Removal or dismantling of any part of a sprinkler system including piping or sprinkler heads within the work area;

(8) Removal or dismantling of any part of a standpipe system including fire pumps or valves within the work area;

(9) Any abatement activity to be performed within a building concurrently with the full demolition of such building or concurrently with the removal of one or more stories of such building;

(10) Removal of any non-load bearing / non-fire-resistance rated wall (greater than 45 square feet or 50 per cent of a given wall) within the work area;

(11) Any plumbing work other than the repair or replacement of plumbing fixtures within the work area;

(12) Removal of any fire-resistance rated portions of a wall, ceiling, floor, door, corridor, partition, or structural element enclosure including spray-on fire-resistance rated materials within the work area;

(13) Removal of any fire damper, smoke damper, firestopping material, fireblocking, or draft stopping within fire-resistance rated assemblies or within concealed spaces;

(14) Any abatement activity that requires immediate construction work that would otherwise require a permit from the Department of Buildings.

(b) *Work Place Safety Plan.*

(1) Plan required. For projects requiring an asbestos abatement permit due to one or more of the activities listed in (a)(1-9) and (a)(14), the building owner or its authorized representative shall submit, together with the asbestos project notification, a work place safety plan (WPSP) and any other applicable construction documents, which shall be prepared by a registered design professional, and a permit fee as specified in subsection (g).

(2) Plan not required. For projects requiring an asbestos abatement permit due to one or more of the activities listed in (a)(10-13), the building owner or its authorized representative shall submit, together with the asbestos project notification, all applicable asbestos abatement permit construction documents, and a permit fee as specified in subsection (g).

(i) If the WPSP is being submitted pursuant to subsection (a)(9), it shall also set forth the sequencing of the proposed work. The WPSP shall not be approved unless it provides for a buffer of four floors or an adequate buffer as determined by the commissioner between the abatement and the demolition or floor removal work.

(3) Approval. The documents submitted pursuant to subsection (b) will be reviewed by DEP's asbestos technical review unit (A-TRU) and by any other relevant city agencies. Upon approval by A-TRU, DEP will issue an asbestos abatement permit to the building owner or its authorized representative.

(c) *Inspections required.* (1) All inspections required pursuant to Title 28 of the Administrative Code, including but not limited to special inspections required by Chapter 17 of the Building Code, shall be performed.

(2) A final inspection shall be performed by a registered design professional after all work authorized by the asbestos abatement permit is completed. The person performing the inspection shall note all failures to comply with the provisions of the Building Code or approved asbestos abatement permit and shall promptly notify the owner in writing. All defects noted in such inspection shall be corrected.

The final inspection report shall either:

(i) confirm:

(A) that the construction work is complete, including the reinstallation or reactivation of any building fire safety or life safety component; and

(B) that any defects previously noted have been corrected; and

(C) that all required inspections were performed; and

(D) that the work is in substantial compliance with the approved asbestos abatement permit construction documents, the Building Code, and other applicable laws and rules; or

(ii) confirm:

(A) that the construction work does not return the building (or portion thereof) affected by the abatement project to a condition compliant with the building code and other applicable laws and rules, but that the registered design professional has reviewed an application for asbestos abatement permit construction documents approval that has been approved by the department of buildings, and the subsequent scope of work as approved will, upon completion, render all areas affected by the asbestos project in full compliance with the building code and all applicable laws and rules; and

(B) that any defects previously noted that are not addressed by the subsequent scope of work as approved by the department of buildings, have been corrected; and

(C) that all required inspections that are not addressed by the subsequent scope of work as approved by the department of buildings were performed; and

(D) that all completed work pursuant to an asbestos abatement permit is in substantial compliance with the approved asbestos abatement permit construction documents.

(3) Final inspection reports shall be filed with DEP on A-TR1 form. Records of final inspections made by registered design professionals shall be maintained by such persons for a period of six years after final inspection or for such other period as the commissioner shall require and shall be made available to the department upon request.

(d) *Duration of Permit.* An asbestos abatement permit shall expire upon the earlier of one year from the date of issuance or when terminated pursuant to either of the following:

(1) The holder of an asbestos abatement permit submits a final inspection report pursuant to (c)(2)(i).

(2) The holder of an asbestos abatement permit submits a final inspection report pursuant to (c)(2)(ii) and obtains a Department of Buildings permit for work which, when completed, will render all areas affected by the project fully compliant with the building code and all other applicable rules and laws.

(e) *Failure to terminate asbestos abatement permit within year.* (1) Failure to terminate an asbestos abatement permit pursuant to subsection (d) within a year from the date of issuance of said permit shall be a violation subject to fine unless the applicant obtains a renewal pursuant to paragraph (2) of this subdivision. Each 60-day period during which such violation continues to occur constitutes a separate offense that may be subject to a separate fine.

(2) The holder of an asbestos abatement permit may extend the term of such permit for additional six month periods upon the submission, within 30 days before the expiration of said permit, of an amendment on a form prescribed by DEP and the payment of a fee in the same amount as the fee paid for the original permit.

(3) If the holder of an asbestos abatement permit fails to terminate an asbestos abatement permit within a year from the date of issuance, the holder shall maintain the work area in a safe manner including but not limited to any mitigation measures set forth in the WPSP and shall not perform work unless the holder reinstates the permit upon submission of an amendment on the forms prescribed by the Department and the payment of a new fee in the same amount as the fee paid for the original permit. Such reinstatement shall be valid for a period of six months from issuance. If the asbestos abatement permit is not terminated during a six-month reinstatement period, the holder of a reinstated asbestos abatement permit must submit a subsequent amendment and fee to reinstate the permit for another six-month period.

(f) *Insurance.* Entities other than NYSDOL-licensed asbestos contractors performing work pursuant to an asbestos abatement permit which does not involve the disturbance of

asbestos-containing materials shall maintain insurance of the same type and amount as would be required if the entity were working pursuant to a permit issued by the Department of Buildings.

(g) *Permit fee.* The WPSP, asbestos abatement permit construction documents, as applicable, shall be accompanied by a filing fee, as follows:

Project Size	Fee
25 to 99 linear feet or 10 to 49 square feet of ACM	$100
100 to 259 linear feet or 50 to 159 square feet of ACM	$300
Large projects up to 1000 square/linear feet of ACM	$500
1000 to 4999 square/linear feet of ACM	$700
5000 to 9999 square/linear feet of ACM	$1100
10,000 or more square/linear feet of ACM	$1300

(h) Work covered by the asbestos abatement permit shall not commence until said permit is issued.

§1-27 Emergency Asbestos Project Notification. (a) An emergency asbestos project involves the removal, enclosure or encapsulation of asbestos-containing material that was not planned but is undertaken when sudden unexpected event(s) result in a situation in which any delay in abatement would pose an immediate danger to public safety and health.

(b) When such an emergency asbestos project occurs, immediate telephone notification shall be provided to DEP's asbestos control program. Telephone notification shall include:

(1) Name, affiliation and telephone number of caller;

(2) Nature of the emergency;

(3) Type of asbestos work to be performed and the quantity of ACM to be abated;

(4) Exact location of the project including street address and borough;

(5) Name, address, and telephone number of the asbestos abatement contractor and the air monitoring company; and

(6) Starting and projected completion dates.

(7) Such other factors as the department may determine are relevant for that project.

(c) An asbestos project notification (ACP-7 Form) shall be submitted to DEP in accordance with the provisions of section 1-25 of these rules as soon as possible, but not later than 48 hours after the project begins. In such cases, the ACP-7 Form shall be accompanied by a cover letter including the following information:

(1) that the project is an emergency asbestos project;

(2) the nature of the emergency;

(3) the DEP emergency control number issued at the time of the telephone notification; and

(4) a description of the scope of work.

With respect to projects commenced under this section, the department, based on inspection by the department and other relevant agencies, may exempt the emergency project from the requirements of section 1-26. Any such exemption will be confirmed in writing by the department.

§1-28 Record Keeping Requirements for Investigators. (a) The asbestos investigator shall maintain a permanent record as required under this section for every building survey/hazard assessment for asbestos that is conducted pursuant to or submitted in accordance with §§1-22 through 1-27 of this chapter.

(b) For each building survey/hazard assessment conducted prior to preparation of either the asbestos project notification (ACP-7) or asbestos assessment report (ACP-5), the investigator shall compile a record which shall include at a minimum:

(1) A survey report that reflects the condition of the work area at the time of the investigator's inspection. The report is to include, at a minimum, the building's address and the name and address of the building owner, as well as the locations, quantities, and condition of all building materials in the affected portion(s) of the building or structure relative to the ACM contained therein; the building or structure's address; and the name and address of the building owner; and

(2) A blueprint, diagram, drawing, or written description of each building or portion thereof inspected by the investigator that identifies clearly each location and approximate linear or square footage of any area where material was sampled for ACM, and the exact locations where bulk samples were collected, the date of collection, and location of any areas assumed to have ACM; and

(3) The printed name and signature of any and all persons who collect bulk samples for the purpose of determining the presence of ACM, a copy of the current DEP asbestos handler certificate and NYSDOL asbestos handler certificate of each such person, the name of the firm performing the survey and a copy of its current NYSDOL asbestos handling license, the name and address of the laboratory analyzing the samples, the date of analysis, the results of the analysis, the method of analysis and the name and signature of the person performing the analysis; and

(4) A detailed written description of any proposed demolition, renovation, alteration or modification work to be performed, including the techniques to be used and a description of affected facility components ;and

(5) A chain of custody for all bulk samples collected as part of the survey.

(c) The investigator shall indicate in each record all instances in which work was performed by a non-certified individual pursuant to §1-16(a)(2), and shall include such individual's name, address, telephone number, and a specific description of all activities performed by such individual.

(d) The investigator shall maintain these records for thirty (30) years.

(e) The investigator shall make these records available during normal business hours without cost or restriction for inspection by a representative of the Department.

§1-29 Maintenance of Project Record and Project Summary (a) A project record shall be maintained for all small and large asbestos projects. During the project, the project record shall be kept on site at all times and may be maintained by the building owner or his authorized representative, which may be the asbestos abatement contractor or the air monitoring company. Upon completion of the project, the project record shall be maintained by the building owner. The project record shall be produced upon verbal or written request by any DEP inspector. Upon transfer of ownership of the building, all project records for past asbestos projects shall be turned over to the new owner. The project record shall consist of:

(1) Copies of licenses of all contractors involved in the project.

(2) Copies of DEP and NYSDOL supervisor and handler certificates for all workers engaged in the project;

(3) Copies of all project notifications and reports filed with DEP and NYSDOL for the project, with any amendments or variances;

(4) Copies of all asbestos abatement permits, including associated approved plans and work place safety plan;

(5) A copy of the air sampling log and all air sampling results;

(6) A copy of the abatement contractor's daily log book;

(7) All data related to bulk sampling including the results of any asbestos surveys performed by an asbestos investigator;

(8) Copies of all waste manifests;

(9) A copy of all project monitor's reports.

(b) In addition to the project record required in subsection (a), the asbestos abatement contractor shall maintain, for at least thirty (30) years after the end of the project, a project summary for each asbestos project in which they engage, consisting of the following:

(1) Name, address, and DEP certificate number of all individuals who worked on the project;

(2) Location and general description of the project;

(3) Amount of ACM abated;

(4) Start and completion dates;

(5) Name, address, and NYSDOL asbestos handling license number of the air monitoring company;

(6) Name, address, and ELAP registration number of the laboratory used for air sample analysis;

(7) Name and address of the site used for disposal of the ACM waste generated by the project;

(8) Name and address of the asbestos hauler;

(9) Copy of the project log.

(c) The building owner or contractor, as applicable, must make the project record or project summary required by this section available for inspection by DEP within 72 hours of request, except that during the project the project record must be made available immediately upon request.

Subchapter D

Air and Bulk Sampling, Monitoring and Analysis

Part 1 Applicability
2 Personnel Qualifications and Equipment Specifications
3 Monitoring Procedures

Part 1

Applicability

§1-31 Performance of Air and Bulk Sampling, Monitoring and

Analysis

§1-31 Performance of Air and Bulk Sampling, Monitoring and Analysis. Air sampling, monitoring, and analysis on asbestos projects, and bulk sampling and analysis to determine asbestos content, shall be performed in accordance with the provisions of the following §§1-31 through 1-45 inclusive.

Part 2

Personnel Qualifications and Equipment Specifications

§1-36 Persons Qualified to Perform Sampling and Analysis
§1-37 Sampling Equipment Requirements

§1-36 Persons Qualified to Perform Sampling and Analysis.

(a) Sampling and analysis shall be performed by:

(1) a third party who is contracted by the building owner, holds a current NYSDOL asbestos handling license, and is completely independent of all parties involved in the asbestos project. The third party who conducts air sampling on an asbestos project shall not be a subcontractor of the abatement contractor, and shall not have any business, personal, or other relationship with the abatement contractor. The building owner shall select and hire the air monitoring firm without recommendation or reference from the abatement contractor. It shall be a violation of this subsection, chargeable against the abatement contractor, the air monitoring firm, and the building owner, for an air monitoring firm to conduct air monitoring on an asbestos project where there is a business or personal relationship between the abatement contractor and the air monitoring firm. It shall be considered prima facie evidence of a business or personal relationship between an abatement contractor and an air monitoring firm when the same firm performs air monitoring on all or virtually all of a given abatement contractor's projects. The person who conducts sampling shall possess a valid New York State Asbestos Project Air Sampling Technician Certificate when performing air sampling; or

(2) Sampling and analysis staff which may not be independent of the building owner but are independent of the abatement contractor involved in the asbestos project, but only if such staff:

(i) performs in conjunction with a third party quality assurance program in which 10 percent of the samples, except for bulk samples initially found to contain ACM, from each project are randomly selected and will be analyzed by both entities; and

(ii) in the case of air sampling, possesses valid New York State Asbestos

Project Air Sampling Technician Certification.

(3) Sampling and analysis staff of a public service corporation with respect to asbestos projects that involve electric, steam or gas generation, distribution or transmission facilities provided that the requirements of subparagraphs (i) and (ii) of paragraph 2 of this section are complied with.

(4) Only persons certified by the Department as asbestos investigators or by New York State Department of Labor as Asbestos Inspectors may select and collect bulk samples for analysis.

(b) An air sampling technician shall be present at the work site to observe and maintain air sampling equipment for the duration of the air sample collection.

(c) Bulk sample analysis (PLM or gravimetric reduction and TEM analysis) shall be performed by laboratories with the appropriate accreditation in the ELAP.

(d) Air Sample Analysis (PCM) shall be performed by laboratories with the following qualifications:

(1) Successful completion by the laboratory's active analysts of the NIOSH 582 training course which outlines the NIOSH 7400 method; and

(2) Analysts with skills in the appropriate methodology and proficiency in the NIOSH PAT Program for PCM analysis; and

(3) Accreditation in ELAP.

(e) Air Sample Analysis (TEM) shall be performed by analysts who possess skills in TEM analysis, are accredited in ELAP, and participate in an in-house quality assurance program using the National Institute of Standards and Technology (NIST SRM 1876 b) or traceable standard.

§1-37 Sampling Equipment Requirements.

(a) *Bulk sampling requirements*. (1) Bulk samples shall be taken by whatever method minimizes the potential for fiber release.

(2) Any material which remains exposed as a result of the sampling procedure shall be sealed.

(b) Area air sampling equipment for Phase Contrast Microscopy (PCM) shall be utilized in accordance with the equipment and sampling procedures specified within the NIOSH 7400 Method modified for area sampling.

(c) Area air sampling equipment for Transmission Electron Microscopy (TEM) shall be utilized in accordance with the sampling procedures specified within 40 CFR Part 763, Subpart E, Appendix A - Section II Mandatory Transmission Electron Microscopy Method, Subsection B-

Sampling.

(d) Air sampling pumps shall have a constant controlled flow and shall have the flow rate capacity to perform sampling as specified in these rules. A properly calibrated rotometer shall be used to check the flow rate. A rotometer shall be available at the work place for the duration of air sample collection. Primary and secondary calibration devices shall be calibrated as per NYSDOH ELAP requirements.

(e) Sampling pumps, cassettes, and tubing shall be checked before, during and after use. The sampling assembly shall be checked for leaks and occlusions.

(f) A project air sampling log shall be created and maintained by the air monitoring company. The project air sampling log shall be available at the work site. A copy of the log shall be submitted to the department within 24 hours of request. The log shall contain the following information for all area air samples collected on the asbestos project:

(1) Name of the firm and the certified air sampling technician performing the project air sampling, per work shift or day for all area air samples collected.

(2) Dates of project air sample collection, per work shift or day of area air samples, with appropriate reference to the work area to which the air samples apply.

(3) Sample location sketch, identifying all project air sample locations, per work shift or day of area air samples.

(4) Identifying information for each area air sample collected.

(5) Sampling time and duration for each area air sample collected.

(6) Flow rate primary or secondary calibration device identification number, method of flow rate primary or secondary device calibration and date of last calibration, per work shift or day of area air samples.

(7) Flow rate of sampling pumps with pre and post calibration listed for each area air sample collected.

(8) Chain of custody for each workshift or day of area air samples.

Part 3

Monitoring Procedures

§1-41 Air Sampling Schedule
§1-42 Monitoring Requirements
§1-43 Post-Abatement Clearance Air Monitoring
§1-44 Analysis and Reporting Results

§1-45 Action Criteria

§1-41 Air Sampling Schedule. (a) At a minimum, air sampling shall be conducted in accordance with the following schedule:

Abatement Activity	Pre-Abatement	During Abatement	Post-Abatement___
Equal to or Greater than 10,000 ft.^{2} or 10,000 linear ft. of ACM per work area	PCM	PCM	TEM
Less than 10,000 ft.^{2} or 10,000 linear ft. of ACM	PCM	PCM	PCM

		Pre-Abatement	During Abatement	Post Abatement
	Large Asbestos Projects			
1.	Full Containment	10	5	10
2.	Glovebag inside Tent	5[a]	5[a]	5[a]
3.	Exterior Foam and Vertical Surfaces	---	5[c]	5[c]
4.	Interior Foam	10	5[c]	10[d]
	Small Asbestos Projects			
1.	Full Containment	6	3	6
2.	Glovebag inside Tent	3[b]	3[b]	3[b]
3.	Tent	3[b]	3[b]	3[b]
4.	Exterior Foam and Vertical Surfaces	---	3[c]	3[d]
5.	Interior Foam	6	3[c]	6[d]
	Minor Projects			
1.	Glovebag inside Tent	---	---	1[d]
2.	Tent	---	---	1[d]
3.	Exterior Foam and Vertical Surfaces	---	---	1[d]
4.	Interior Foam	---	---	1[d]

[a] if more than three (3) tents then two (2) samples required per enclosure.
[b] if more than three (3) tents then one (1) sample required per enclosure.
[c] samples shall be taken within the work area(s).
[d] area sampling is required only if:

- visible emissions are detected during the project
- during-abatement area sampling results exceeded 0.01 f/cc or the pre-abatement area sampling result(s) for interior projects where applicable.

- work area to be reoccupied is an interior space at a school, healthcare, or daycare facility.

Note: TEM is acceptable wherever PCM is required.

(b) *Pre-Abatement.* Prior to commencement of abatement activities, the number of samples specified below shall be taken during normal occupancy activities and circumstances at the work site. Samples shall be taken at the following locations:

(1) For large full-containment and interior foam method asbestos projects, a minimum of five samples inside and five samples outside the proposed work area.

(2) For small full-containment and interior foam method asbestos projects, a minimum of three samples inside and three outside the proposed work area.

(3) For large or small asbestos projects employing the glovebag procedure within a tent, a minimum of three samples, or two samples per enclosure if more than three enclosures.

(4) For small asbestos projects solely employing tent procedure, a minimum of three samples inside each proposed work area, or two samples per enclosure if more than three enclosures.

(5) For all exterior projects (foam or vertical surface), no pre-abatement sampling is required.

(c) *During abatement*. Frequency and duration of the air sampling during abatement shall be representative of the actual conditions during the abatement. Area sampling shall be conducted daily and continuously during a work shift. If more than one daily work shift is required to accomplish the work, area sampling shall be performed on each work shift. Area sampling is not required on days when there are no abatement activities. For project air samples collected during the abatement, the period of time permitted between completion of air sample collection and receipt of results on the job site shall not exceed 48 hours. The following minimum schedule of samples shall be required during the work shift.

(1) For large asbestos projects employing full containment, area air sampling shall be performed at the following locations:

(i) Two area samples outside the asbestos project work area in uncontaminated areas of the building, remote from the decontamination facilities.

(A) Primary location selection shall be within 10 feet of isolation barriers.

(B) Where negative ventilation exhaust ducting runs through uncontaminated building areas, one area samplewill be required in these areas to monitor any potential fiber release.

(C) Where exhaust tubes have been grouped together in banks of up to five (5) tubes, with each tube exhausting separately and the bank of tubes terminating together at the same controlled area, one area air sample

shall be taken.

(ii) One area sample within the uncontaminated entrance to each worker decontamination and waste decontamination enclosure system; and

(iii) One area sample within 5 feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors but not within a duct.

(iv) One area sample outside, but within 25 feet of, the building or structure, if the entire building or structure is the work area.

(2) For large asbestos projects involving interior foam method, area air sampling shall be performed at the following sampling locations:

(i) One area sample taken outside the work area within 10 feet of isolation barriers.

(ii) One area sample taken within the uncontaminated entrance to each worker decontamination and waste decontamination enclosure system.

(iii) One area sample within 5 feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors but not within a duct, if applicable.

(iv) Three area samples inside the work area.

(v) One area sample where the negative ventilation exhaust ducting runs through uncontaminated building areas, if applicable.

(3) For large asbestos projects involving exterior foam method or removal of ACM from vertical surfaces, a minimum of five continuous area samples shall be taken concurrently with the abatement for each work area using the following minimum requirements:

(i) Three area samples inside the work area and remote from the decontamination systems.

(ii) One area sample within the uncontaminated entrance to each worker and waste decontamination enclosure system.

(iii) One area sample outside the work area within 25 feet of the building or structure, if the entire building or structure is the work area.

(iv) One area sample inside the building or structure at the egress point to the work area, if applicable.

(4) For large asbestos projects employing the glovebag procedure within a tent, a

minimum of five continuous air samples shall be taken concurrently with the abatement for each work area, unless there are more than three enclosures, in which case two area samples per enclosure are required.

(i) Four area samples taken outside the work area within ten feet of tent enclosure(s).

(ii) One area sample taken within the uncontaminated entrance to each worker and waste decontamination enclosure system.

(iii) One area sample within five feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors, but not within a duct, if applicable.

(iv) One area sample where negative ventilation exhaust ducting runs through uncontaminated building areas, if applicable.

(5) For small asbestos projects employing full containment, a minimum of three continuous area samples shall be taken concurrently with the abatement for each work area at the following locations:

(i) Two area samples taken outside the work area within ten feet of the isolation barriers.

(ii) One area sample within the uncontaminated entrance to each worker or waste decontamination enclosure system.

(iii) One area sample within five feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors, but not within a duct, if applicable.

(iv) One area sample where negative ventilation exhaust ducting runs through an uncontaminated building area, if applicable.

(6) For small asbestos projects involving the use of foam method on the exterior of a building or the removal of ACM from exterior surfaces, a minimum of three continuous area samples shall be taken concurrently with the abatement for each work area at the following locations:

(i) Two area samples inside the work area and remote from the decontamination systems.

(ii) One area sample within the uncontaminated entrance to each worker and waste decontamination enclosure system.

(iii) One area sample inside the building or structure at the egress point to the work area, if applicable.

(7) For small asbestos projects using the tent procedure (with or without the use of

glovebags), a minimum of three area samples shall be taken concurrently with the abatement for each work area unless there are more than two enclosures, in which case one sample per enclosure is required.

(i) Two area samples taken outside of the work area within ten feet of the tent.

(ii) One area sample within the uncontaminated entrance to each worker and waste decontamination system.

(iii) One area sample within five feet of the unobstructed exhaust from a negative pressure ventilation system exhausting indoors, but not within a duct, if applicable.

(iv) One area sample where negative ventilation exhaust ducting runs through uncontaminated building areas, if applicable.

(8) For small asbestos projects employing interior foam procedures, a minimum of three continuous area samples shall be taken concurrently with the abatement for each work area at the following locations:

(i) One area samples taken inside the work area.

(ii) One area sample taken within the uncontaminated entrance to each worker and waste decontamination enclosure system.

(iii) One area sample taken outside the work area within ten feet of the isolation barriers.

(iv) One area sample where negative ventilation exhaust ducting runs through uncontaminated building areas, if applicable.

(d) *Post-abatement.* Post-abatement clearance air monitoring shall include at a minimum the number of area samples specified below, to be taken for each homogeneous work area.

(1) For small asbestos projects:

(i) involving full containment or interior foam method, three area samples inside and three outside the work area;

(ii) involving tent procedure, three area samples inside each work area or one area sample inside each tent if there are more than three tents;

(iii) involving exterior foam method or removal from vertical surfaces, three area samples inside the work area, only if visible emissions were detected during the project, or abatement area samples exceeded 0.01 f/cc.

(2) For large asbestos projects,

(i) a minimum of five area samples inside and five outside the work area, for projects involving full containment or interior foam method. In addition to the 5 sample minimum, one representative area sample shall be collected both inside and outside the work area for every 5,000 square feet above 25,000 square feet of floor space when ACM has been abated.

(ii) a minimum of five area samples inside each tent enclosure where glovebag procedures are being used, or two area samples inside each tent where glovebag procedures are being used if there are more than three tents;

(iii) involving exterior foam method or removal from vertical surfaces, five area samples inside the work area, only if visible emissions were detected during the project, or abatement area samples exceeded 0.01 f/cc.

(3) When TEM analysis is employed a minimum of 5 samples from outside the work area shall also be collected.

(4) For minor projects post-abatement clearance air monitoring is not required, unless visible emissions were detected outside the work area and/or levels exceeded 0.01 f/cc during abatement, or the project was conducted inside a school, daycare, or healthcare institution. In such cases, one area sample shall be taken.

§1-42 Monitoring Requirements. Monitoring requirements and procedures for other than post-abatement clearance air monitoring are as follows:

(a) The sampling zone for indoor air samples shall be representative of the building occupants' breathing zone. However, at no time shall the sampling cassette be placed less than 4 feet from the ground. Air samplers shall be placed so that they are not influenced by unusual air circulation patterns or by the configuration of the space or by each other. Air sampling cassettes shall be mounted upon commercially-available aluminum tripods and shall not be placed within two feet of walls or obstructions such as the corners of rooms or furniture.

(b) If possible, ambient samplers should be placed about 6 feet above the ground surface in reasonable proximity to the building and away from obstructions and drafts that may unduly affect airflow.

For outdoor samples, if access to electricity and concerns about security dictate a rooftop site, locations near vents and other structures on the roof which would unduly affect airflow shall be avoided.

(c) Samples shall have a chain of custody record. The project air sampling log required pursuant to section 1-37(f) of these rules does not satisfy the chain of custody requirement.

(d) In accordance with the above criteria, area samples (see §1-41) shall conform

to the following schedule:

Area Samples for Analysis by	Minimum Volume	Flow Rate
PCM 25 mm	560	5 to 15 liters/min.
TEM 25 mm	Liters	1 to 10 liters/min.
TEM 37 mm	560	1 to 10 liters/min.

(e) For small projects including tent procedures, sampling shall start with the installation of the containment and shall run concurrently with the procedure.

§1-43 Post-Abatement Clearance Air Monitoring. Post-abatement clearance air monitoring requirements are as follows:

(a) (1) Sampling shall not begin until a visual inspection, conducted by a project monitor employed by the air monitoring company and by the asbestos handler supervisor, confirms that all containerized waste has been removed from work and holding areas and there is no visible ACM debris or residue on or about all abated surfaces; and

(2) Sampling shall not begin until at least 1 hour after the area is dry from the third cleaning (see §1-112(e)) and no visible pools of water or condensation remain.

For pre-demolition asbestos abatement activity, sampling shall begin 2 hours after the area is dry and no visible pools of water or condensation remain.

(b) Samplers shall be placed at random around the work area. If the work area contains the number of rooms equivalent to the number of required samples based on floor area, a sampler shall be placed in each room. When the number of rooms is greater than the required number of samples a representative sample of rooms shall be selected.

(c) The representative samplers placed outside the work area but within the building shall be located to avoid any air that might escape through the isolation barriers and shall be approximately 50 feet from the entrance to the work area, and 25 feet from the isolation barriers.

(d) The following aggressive sampling procedures shall be used within the work area during all clearance air monitoring:

(1) Before starting the sampling pumps, use forced air equipment (such as a 1 horsepower leaf blower) to direct exhaust air against all walls, ceilings, floors, ledges and other surfaces in the work area.

(i) For asbestos projects: this pre-sampling procedure shall take at least 5 minutes per 1,000 sq. ft. of floor area; then install one 20-inch fan per 10,000 cubic feet of room space. Then immediately place the fan on slow speed and point it toward the ceiling.

(ii) For pre-demolition asbestos abatement activity, this pre-sampling procedure shall take at least three minutes, after which the 20-inch fan shall be left running unattended in the work area throughout sampling. This procedure shall be acceptable when the floor area of the work area is less than 500 square feet. At or above 500 square feet of floor area within the work area, the aggressive sampling procedures specified in this subdivision (d) for asbestos projects shall be conducted.

(2) Start the sampling pumps and sample for the required time or volume.

(3) Turn off the pump and then the fan(s) when sampling is completed.

(e) For post-abatement monitoring, area samples shall conform to the following schedule:

Area Samples for Analysis by	Minimum Volume	Flow Rate
PCM	1,800 Liters	5 to 15 liters/min.
TEM	1,250 Liters	1 to 10 liters/min.

(f) Each homogeneous work area which does not meet the clearance criteria shall be thoroughly recleaned using wet methods, with the negative pressure ventilation system in operation. New samples shall be collected in the work area as described above. The process shall be repeated until the work site passes the test.

(g) For an asbestos project with more than one homogenous work area, the release criterion shall be applied independently to each work area.

§1-44 Analysis and Reporting Results. Laboratory analyses and reporting shall be considered evidence of compliance with this chapter only if they conform to the following requirements:

(a) PCM area air samples shall be analyzed and reported in accordance with the NIOSH 7400 method using "A" Counting Rules.

(b) TEM area air samples shall be analyzed and reported in accordance with the mandatory or non-mandatory Electron Microscopy Methods set forth at 40 CFR Part 763, Subpart E, Appendix A.

(c) Bulk samples shall be analyzed and reported in accordance with Interim Method for the Determination of Asbestiform Materials in Bulk Insulation Samples found in 40 CFR Part 763, Subpart F, Appendix A as amended on September 1, 1982, or other methods approved by the National Institute of Standards and Technology, the National Institute of Occupational Safety and Health, the United States Environmental Protection Agency, or New York State Department of Health.

(d) Bulk and air sampling results/reports shall be submitted directly to the Department upon request within five calendar days.

§1-45 Action Criteria. (a) When visible emissions occur outside the work area, or any area air sample has indicated a determinant level of fiber concentrations greater than the larger of baseline levels or 0.01 f/cc, work shall stop for inspection.

(1) For large or small asbestos projects, the integrity of barriers, if disturbed, shall be restored. Clean-up of surfaces outside of the work area using HEPA vacuums or wet cleaning techniques shall be done prior to resuming abatement activities.

(2) For tent procedures, HVAC systems to or in the work area shall be shut down and the work area shall be wet cleaned or HEPA vacuumed until the area air samples indicate the fiber concentration is below the determinant level. If fiber concentrations remain above the determinant level for longer than 24 hours, isolation barriers and engineering controls shall be installed and maintained.

(b) *Clearance and/or reoccupancy criteria.* (1) The clearance criteria shall be applied to each homogeneous work area independently.

(2) For PCM analysis involved in alteration or renovation projects, the clearance air monitoring shall be considered satisfactory when every sample is less than or equal to 0.01 f/cc or less than the ambient concentration, whichever is larger.

(3) For TEM analysis, the clearance monitoring will be considered satisfactory if conducted in accordance with 40 CFR Part 763, Subpart E, Appendix A Section IV— Mandatory Interpretation of Transmission Electron Microscopy Results to Determine Completion of Response Actions.

(4) Clearance air monitoring results shall be submitted directly to the Department within 24 hours of request.

Subchapter E

Personnel Protection and Equipment Specifications

Part 1 Worker Protection
2 Equipment Specifications

Part 1

Worker Protection

§1-51 Worker Protection Requirements. (a) Prior to project initiation, all workers

engaged in abatement activities on an asbestos project or minor project must be certified by DEP.

(b) At least one asbestos handler supervisor shall be present at the work site while abatement activities are being conducted on an asbestos project or minor project, except that during minor projects the supervisor does not have to be physically present at all times but must be readily available.

(c) Personal protective equipment shall be worn by all individuals inside the work place during abatement activities, except that gloves need not be worn during those work place preparation activities which do not involve the disturbance of ACM.

Personal protective equipment shall meet the following specifications:

(1) Disposable clothing including head, hand, foot and full body protection shall be provided by the contractor in sufficient quantities and adequate sizes for all workers and authorized visitors.

(2) Hard hats, protective eyewear, gloves, rubber boots and/or other footwear shall be provided by the contractor as required for workers and authorized visitors. Safety shoes and hard hats shall be in accordance with ANSI Z89.1 (1969) and ANSI Z41.1 (1967).

(3) Contaminated clothing shall be sealed in impermeable bags and the bags shall be appropriately labeled.

(d) Personal air monitoring shall be performed in accordance with current OSHA regulations. Such records shall be made available upon request to authorized Department representatives upon request.

(e) Personal Hygiene at the work site shall meet the following requirements:

(1) There shall be no smoking on any floor of the building where abatement activities are taking place.

(2) Jewelry, watches, and cellular telephones shall not be worn, carried, or kept in contaminated areas.

(3) The contractor shall provide clean change areas for the workers. Change areas shall be equipped with separate storage facilities for protective clothing and street clothing.

(4) If lunch areas are provided, they shall be located outside the work place in an area in which the airborne concentrations are below 0.01 f/cc.

(5) There shall be no eating, drinking, application of cosmetics, or chewing of gum or tobacco inside the work place. There shall be no food or beverages present in the work place.

(6) There shall be no lighters or matches in the work place.

(f) The contractor shall have available the following information at the work place:

(1) A copy of the U.S. Environmental Protection Agency Regulations for Asbestos, 40 CFR 61 Subparts A and M and a copy of OSHA Asbestos Regulations, 29 CFR 1926.1101, and 12 NYCRR Part 56; and

(2) A list of telephone numbers for local hospital, location of hospital and/or emergency squad, local fire department, the building owner (or representative) and the N.Y.C. Asbestos Control Program, and

(3) A copy of these Rules, the most recent Asbestos Project Notification (Form ACP-7) filed including amendments, permits, any variance application (Form ACP-9) and DEP approval thereof, and

(4) A copy of all Material Safety Data Sheets (MSDS) for chemicals used during the asbestos project, and

(5) New York City Asbestos handler and supervisor certificates of all workers in the work site, and

(6) A copy of the current New York State Department of Labor asbestos handling license of the abatement contractor and air monitoring company.

(7) A copy of any asbestos survey performed in the affected building in accordance with these rules.

(g) The contractor shall post signs during all abatement activities. Signs shall be posted at all approaches to the work place including internal doorways which provide access to the work place. These signs shall bear the following information:

DANGER
ASBESTOS CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA

(h) Warning labels shall be affixed to all waste containers containing asbestos material in and shall bear the following information:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST

Part 2

Equipment Specifications

§1-61 Materials and Equipment

§1-61 Materials and Equipment. The materials and equipment used during all abatement activities shall conform with the following:

(a) During abatement activities, replacement materials shall be stored outside the work area in a manner to prevent contamination. Materials required for the asbestos project (i.e. plastic sheeting, replacement filters, duct tape, etc.) shall be stored to prevent damage or contamination.

(b) When asbestos-containing material that has been used for fireproofing or insulation is removed, the replacement material shall comply with all applicable provisions of the New York City Administrative Code and regulations.

(c) For plasticizing, fire-retardant polyethylene sheeting with 6-mil thickness or greater, in sizes to minimize the frequency of joints, shall be employed.

(d) Duct tape and selected adhesive shall be capable of sealing joints of adjacent sheets of polyethylene, facilitating attachment of polyethylene sheets to finished or unfinished surfaces, and of adhering under both dry and wet conditions, including during the use of amended water.

(e) Airtight and watertight containers shall be provided to receive and retain any asbestos-containing waste materials. Plastic bags used for waste storage or disposal shall be a minimum of 6-mil in thickness. All containers shall be labeled in accordance with OSHA Regulation 29 CFR 1926.58K(2)(ii) and (iii).

(f) Materials used to enclose ACM shall be impact resistant and assembled to be airtight Gypsum panels taped at the seams, tongue and groove boards, and boards with spline joints all qualify.

(g) Power tools used to drill, cut into, or otherwise disturb ACM shall be manufacturer-equipped with HEPA filtered local exhaust ventilation. Abrasive removal methods, including the use of beadblasters, are prohibited.

(h) Ladders or scaffolds of sufficient dimension and quantity shall be available so that all work surfaces can be easily and safely reached by inspectors. Scaffold joints and ends shall be sealed with tape to prevent incursion of asbestos fibers.

(i) Electrical equipment shall be Underwriters Laboratory listed and approved.

(j) Surfactants, strippers, sealers, or any other chemicals used during the asbestos project shall be non-carcinogenic and non-toxic.

(k) Materials used in the construction of temporary enclosures shall be noncombustible or fire-retardant in accordance with NFPA 701 and 255.

(l) Equipment and materials may be substituted for those specified in this chapter only if determined to be equivalent after review by the Department.

Subchapter F

Asbestos Project Procedures

Part 1 Applicability
2 Work Place Preparation
3 Work Place Procedures
4 Abatement Procedures
5 Clean-up Procedures

Part 1

§1-71 Applicability

§1-71 Applicability. In addition to §§1-01 through 1-61, the following sections 1-81 through 1-83, 1-91 through 1-94 and 1-111 and 1-112 shall apply to all asbestos projects. Sections 1-101 through 1-110 shall apply to all asbestos abatement activities.

Part 2

Work Place Preparation

§1-81 General Work Place Preparation Requirements
§1-82 Worker Decontamination Enclosure System
§1-83 Waste Decontamination Enclosure System
§1-84 Small Asbestos Project Worker and Waste Decontamination Enclosure System

§1-81 General Work Place Preparation Requirements.

The following procedures shall be followed during the conduct of abatement activities on asbestos projects. The procedures set forth in this subdivision shall be performed in the order set forth below:

(a) The building owner or designated representative shall provide notification to all occupants of the work place and immediate adjacent areas of the asbestos project. Information provided in the notification shall include contractor, project location and size, amount and type of ACM, abatement procedure, dates of expected occurrence and the Call Center "311" for government information and services. Postings of this notification shall be in English and Spanish, at eye level, in a conspicuous, well-lit place, at the entrances to the work place and immediate adjacent areas. The notice shall have the following heading: **NOTICE OF ASBESTOS ABATEMENT**, in a minimum of one inch sans serif, gothic or block style lettering, with the balance of the lettering of the notice to be of the same type lettering in a minimum of one quarter inch size. The notices shall be posted 7 calendar days prior to the start of the project and shall remain posted until clearance air monitoring is satisfactorily concluded. A lessee initiating an asbestos project shall give 10 calendar days notice to the owner of the subject building.

(b) A floor plan showing the areas of the building under abatement and the location of all fire exits in said areas shall be prominently posted in the building lobby or comparable location, along with a notice stating the location within the building of the negative air cutoff switch required under section 1-91(f) of these rules, if applicable.

(c) The work place shall be vacated by the occupants prior to work place preparation and until successful clearance air monitoring.

(d) Electric power to all work areas shall be shut down and locked out except for electrical equipment that must remain in service. Safe temporary power and lighting shall be provided in accordance with all applicable codes. Existing light sources (e.g. house lights) shall not be utilized. All power to work areas shall be brought in from outside the area through ground-fault circuit interrupter at the source.

(1) If electrical circuits, machinery, and other electrical systems in or passing though the work area must stay in operation due to health and safety requirements, the following precautions must be taken:

(i) All unprotected cables, except low-voltage (less than 24 volts) communication and control system cables, panel boxes of cables and joints in live conduit that run through the work area shall be covered with three (3) independent layers of six (6) mil fire retardant polyethylene. Each layer shall be individually duct taped and sealed. All three (3) layers of polyethylene sheeting shall be left in place until satisfactory clearance air sampling results have been obtained.

(ii) Any energized circuits remaining in the work area shall be posted with a minimum two (2) inch high lettering warning sign which reads: DANGER LIVE ELECTRICAL - KEEP CLEAR. A sign shall be placed on all live covered barriers at a maximum of ten (10) foot intervals. These signs shall be posted in sufficient numbers to warn all persons authorized to enter the work area of the existence of the

energized circuits.

(e) The worker decontamination enclosure system shall be installed or constructed prior to plasticizing the work area or before disturbing ACM.

(f) (1) Prior to erection of partitions, ACM that may be disturbed during this activity shall be:

(i) removed using a tent procedure (including engineering controls); and/or

(ii) treated via wet methods.

(2) Removal by the above procedures shall be limited to a maximum of a one foot wide strip running the length and/or height of the partition and is allowed only to facilitate erection of the partitions.

(g) All boilers and other equipment within the work area shall be shut down, locked out, and tagged out and the burner/boiler/equipment accesses and openings shall be sealed in accordance with §1-81(n) until abatement activities are complete. If the boiler or other exhausted equipment will be subject to abatement, all breeching, stacks, columns, flues, shafts, and double-walled enclosures serving as exhausts or vents shall be segregated from the affected boiler or equipment and sealed airtight to eliminate potential chimney effects within the work area. Heating, Ventilation and Air Conditioning (HVAC) System Isolation methods are listed below in order of preference; the more complex and potentially problematic methods maybe used when the more preferred procedures are impractical.

(1) shut down and lock out HVAC systems and install isolation barriers (see §1-81(k)) to prevent contamination and fiber dispersal to other areas of the structure, or

(2) isolate locally and provide temporary HVAC, or

(3) positive pressurization of the HVAC system. This procedure shall be applied only under the direction and control of a professional engineer, or other knowledgeable licensed professional.

(h) Abatement shall not commence until work place preparation has been completed.

(i) Movable objects within the proposed work areas shall be pre-cleaned (i.e., prior to commencing general abatement) using HEPA filtered vacuum equipment and/or wet cleaning methods and such objects shall be removed from the work area. If carpeting is left in place, it shall be covered with fire retardant 6-mil plastic sheeting, and then ⅜ in. rigid flooring prior to normal plasticizing.

(j) All flammable materials shall be removed from the work area and all sources of ignition (including but not limited to pilot lights) shall be extinguished.

(k) Fixed objects which will remain within the proposed work areas shall be pre-cleaned using HEPA filtered vacuum equipment and/or wet cleaning methods as appropriate, and enclosed with fire retardant 6-mil plastic sheeting sealed to protect from re-contamination. Sprinklers, standpipes, and other fire suppression systems shall remain in service and shall not be plasticized.

(l) Any source of emergency lighting which is temporarily blocked as a result of work place preparation shall be replaced for the duration of the project by battery operated or temporary exit signs, exit lights, or photoluminescent path markings.

(m) Prior to plasticizing, the proposed work areas shall be pre-cleaned using HEPA filtered vacuum equipment and/or wet cleaning methods. Methods that raise dust, such as sweeping or vacuuming with equipment not equipped with HEPA filters, are prohibited.

(n) The isolation barriers (i.e., sealing off of all openings, including but not limited to windows, corridors, doorways, barriers, skylights, ducts, grills, diffusers, and any other penetrations of the work place) shall be installed with two layers of fire retardant 6-mil plastic sheeting sealed with tape. All seams of HVAC or other system components that pass through the work place shall also be sealed.

(o) The work area shall be segregated from the remainder of the work site by construction of temporary structural partitions as follows:

(1)Partitions shall be constructed of conventional 2 x 3 (minimum) wood or metal stud framing, 16"CC maximum, to support barriers in all openings larger than 32ft^2, except where any one dimension is 1 foot or less, or where openings are exits covered in subdivision (p) below.

(2) A solid construction material (e.g. fire rated plywood) of at least ⅜" thickness shall be applied to the work side of the framing. In secure interior areas where partitions are not subject to access from the public, an additional layer of fire retardant 6-mil plastic sheeting may be substituted for the solid construction material.

(3) The partitions shall be caulked/sealed at the floor, ceiling, walls, joints and fixtures to form an airtight seal.

(4) Where the opening is an exit covered in subdivision (s) below, or where the partition would block egress, the partition shall consist of two sheets of fire-retardant 6-mil plastic, prominently marked as an exit with photoluminescent paint or signage. Cutting tools (e.g., knife, razor) shall be attached to the work area side of the sheeting for use in the event that the barrier must be cut open to allow egress.

(5) Means of egress shall not be obstructed by hardwall barriers.

(p) In addition to the isolation barriers, floor and wall surfaces shall be sealed with a minimum of two layers of fire retardant 6-mil plastic sheeting, except where the only ACM being abated in the project is vinyl asbestos floor tile or other flooring material, in which case the floor need not be sealed; or the only material being abated in the project is wall plaster or other wall material, in which case the walls need not be sealed. The plastic layers on the floor shall extend 6 inches up the walls. Walls shall be covered with plastic sheeting down to the floor level, thus overlapping the floor material by a minimum of 6 inches. There shall be a distance of at least 6 inches between seams of adjacent layers.

(q) After isolation barriers are in place, ceiling-mounted objects not previously sealed that will interfere with ACM abatement shall be removed and cleaned. Amended water spraying

or HEPA filtered vacuum equipment shall be used during fixture removal to reduce fiber dispersal.

(r) Suspended ceiling tiles and T-grid components, contaminated by ACM, shall remain in place until the work area has been fully prepared as outlined in this section and electrical and HVAC systems have been shutdown. Suspended ceiling components shall be removed and disposed of as asbestos-containing waste or, if non-porous, retained for reuse after wet cleaning/HEPA vacuuming. Isolation barriers shall be installed in all openings above the ceiling before disturbance of ACM commences.

(s) Entrances to the work place that will not be used for worker entry or emergency exits shall be locked to prevent unauthorized entry.

(t) Exits from the work area shall be maintained, or alternative exits shall be established, in accordance with section 1027 of the New York City Fire Code. Exits shall be checked at the beginning and end of each work shift against blockage or impediments to exiting.

(u) Signs clearly indicating the direction of exits shall be maintained and prominently displayed within the work area.

(v) No smoking signs shall be maintained and prominently displayed within the work place.

(w) Floor drains shall be sealed individually with two layers of fire retardant 6-mil plastic sheeting and tape, and then covered as all other floor surfaces. Pits, sumps, etc., shall be covered with adequate fire rated plywood sheeting and secured to floor slabs in a manner which prevents a tripping hazard, prior to required plasticizing.

(x) Elevators running through the work area shall conform to the following:

(1) The elevator door in the work area shall be enclosed with conventional 2 x 4 stud framing, covered with ⅜" fire rated plywood sheeting and sealed at all edges and seams. The barrier shall be covered and lapped for 8 inches with two layers of fire retardant 6-mil plastic sheeting adhered individually with edges taped for air tightness.

(2) Elevators not remaining in service shall have the fuses removed and the power switch locked in the open position.

(3) Elevators that remain in operation shall conform to the following additional procedures to minimize the piston effect that results:

(i) Elevator control shall be modified to bypass the work area.

(ii) A final larger layer of fire retardant 6-mil plastic sheeting is to be taped airtight but with slack forming a larger perimeter diaphragm. Air leakage across the barrier shall be corrected upon discovery, and the elevator shaft shall be checked for airborne asbestos contamination.

(iii)This system shall be smoke tested daily.

(4) Elevator shafts shall not be used as waste chutes.

(y) Adequate toilet facilities shall be provided in the vicinity of the clean room external to the work place. Where such facilities so not exist, portable service shall be provided.

(z) At least one fire extinguisher with a minimum rating 2-A:10-B:C shall be required for each work place. In the case of large asbestos projects, at least two such fire extinguishers shall be required.

§1-82 Worker Decontamination Enclosure System. The following procedures shall be followed during the conduct of abatement activities on asbestos projects:

(a) Worker decontamination enclosure systems shall be located outside the work area and attached to all locations where workers will enter or exit the work area. One system at a single location for each contained work area is preferred. These systems may consist of existing rooms outside of the work area, that offer direct access to the work area and general egress from the work place. When this situation does not exist, enclosure systems may be constructed or may consist of prefabricated or trailer units. Adequate heat and light shall be safely provided.

(b) The worker decontamination enclosure system shall consist of a clean room, a shower room, and an equipment room, in series, separated from each other by airlocks and from the work area and non-work place by curtained doors (see Illustration I).

(c) Worker decontamination enclosure systems shall be fully lined utilizing two layers of fire retardant 6-mil opaque plastic sheeting at a minimum, or the equivalent.

(d) When the decontamination enclosure is constructed outdoors or in areas with public access it shall be fully framed and fire retardant plywood sheathed or equivalent to prevent unauthorized entry. When located outdoors, it shall be waterproof and windproof.

(e) Prefabricated or trailer decontamination units:

(1) shall at a minimum, have functionality and security equivalent to constructed decontamination enclosure facilities, and

(2) shall be completely decontaminated prior to removal from the work site.

(f) The clean room:

(1) shall contain secure crew lockers or shelves, and clean sealable plastic bags for storage of street clothes, and

(2) shall contain shelves or appropriate facilities for storage of respirators, and

(3) shall contain clean disposable clothing, replacement filters for respirators, towels and other necessary personal protective equipment, and

(4) shall not be used for storage of tools, equipment or materials, other than personal protective equipment, nor used as office space, and

(5) shall be equipped with a lockable door to secure the work place during off-shift hours.

(g) The shower room:

(1) shall contain a minimum of one (1) shower per 6 workers calculated on the basis of the largest shift, and

(2) shall have shower heads supplied with hot and cold water adjustable at the shower, and

(3) shall be constructed to ensure against water leakage, and shall contain a rigid catch basin at least six (6) inches deep, and

(4) shall contain liquid bath soap, shampoo, and clean dry towels in sufficient quantity for each worker for each showering.

(h) Shower water shall be continuously drained, collected and filtered through a system with a least 5.0 micron particle size collection capability. A system containing a series of several filters with progressively smaller pore sizes shall be used to avoid rapid clogging of the filtration system by large particles. Pumps shall be installed, maintained and utilized in accordance with manufacturer's recommendations.

(1) Filtered wastewater shall be discharged either to a sewer or drummed and then properly disposed.

(2) Used filters shall be disposed of as asbestos-containing waste material.

(i) The equipment room:

(1) shall be used for storage of equipment and tools used on the job that have been cleaned previously in the work area, and

(2) may contain a limited supply of replacement filters (in sealed containers until used) for HEPA vacuums and pressure ventilation equipment, extra tools, containers of surfactant and other materials and equipment that may be required during the abatement activity, and

(3) shall contain labeled fire retardant 6-mil plastic bags for collection of disposable clothing, and

(4) shall be used to store contaminated footwear (e.g. rubber boots and other reusable footwear) and contaminated clothing for reuse for the duration of the abatement activity or until disposed.

§1-83 Waste Decontamination Enclosure System. The following procedures shall be followed for removal of asbestos-containing waste material and equipment during the conduct of abatement activities on asbestos projects:

(a) The waste decontamination enclosure system shall be located outside the work area and attached to all locations through which ACM waste will be removed from the work area. A waste decontamination enclosure system shall consist of two totally enclosed chambers and shall also comply with the following requirements:

(1) the washroom shall be constructed with an airlock doorway to the work area and an airlock doorway to the holding area (see Illustration II); and

(2) the holding area shall be constructed with an airlock doorway to the washroom and a lockable door to the outside (see Illustration II); if remote from the washroom, it shall comply with all applicable NYC Department of Sanitation regulations pursuant to Local Laws 70 of 1985 and 21 of 1987.

(b) Where there is only one means of egress from the work area:

(1) the holding area of the waste decontamination enclosure system may branch off from the equipment/decontamination room (see Illustration III). Thus the equipment room alternates as a waste washroom. In this case the waste washroom shall be equipped with a drain, installed to collect water and deliver it to the shower drain where it is filtered, or

(2) where total asbestos-containing material disturbed in the asbestos project is less than 1,000 linear feet or 1,000 square feet, the shower room may be used as a waste washroom, and

(i) the clean room, in the configuration shown in Illustration I, may not be used for waste storage but may be used for waste transfer to carts, which are stored outside the clean room in a designated holding area.

(c) The waste decontamination enclosure system shall be constructed to meet the requirements of §§1-82 (a), (c), (d), (e), (f)(3) and (h).

§1-84 Small Asbestos Project Worker and Waste Decontamination Enclosure System. The following alternative to §§1-82 and 1-83 shall be applicable for small projects only:

(a) The worker decontamination enclosure system shall consist of, as a minimum, an equipment room, a shower room, and a clean room separated from each other and from the work area by curtained doorways. Equipment storage, personal gross decontamination and removal of disposable clothing shall occur in the equipment room prior to entering the shower. All other requirements set forth in §1-82 and §1-92 shall apply.

(b) For small asbestos projects with only one exit from the work area, the shower room may be used as a waste washroom. The clean room shall not be used for waste storage. All other

requirements set forth in §§1-83 and 1-93 shall apply.

Part 3

Work Place Procedures

§1-91	**Engineering Controls**
§1-92	**Work Place Entry and Exit Procedures**
§1-93	**Equipment and Waste Container Decontamination and Removal Procedures**
§1-94	**Maintenance of Decontamination Enclosure Systems and Barriers**

§1-91 Engineering Controls. The following procedures shall be followed during the conduct of abatement activities on asbestos projects:

(a) All asbestos projects shall utilize negative pressure ventilation equipment.

(1) On all asbestos projects, a manometer shall be used to document the pressure differential. The manometer shall be installed and made operational once the negative pressure has been established in the work area. Magnahelic manometers shall be calibrated at least every six months, and a copy of the current calibration certification shall be available at the work site.

(b) The negative pressure ventilation equipment shall operate continuously, 24 hours a day, from the establishment of isolation barriers through successful clearance air monitoring. If such equipment shuts off, adjacent areas shall be monitored for asbestos fibers.

(c) A static negative air pressure of 0.02 inches (minimum) water column shall be maintained at all times in the work place during abatement to ensure that contaminated air in the work area does not filter back to uncontaminated areas.

(d) If more than one ventilation unit is installed, units shall be turned on one at a time while checking the integrity of all barriers for secure attachment and the need for additional reinforcement.

(e) A dedicated power supply for the negative pressure ventilating units shall be utilized. The negative air equipment shall be on a ground fault circuit interrupter (GFCI) protected circuit separate from the remainder of the work area temporary power circuits.

(f) If the containment area of an asbestos project covers the entire floor of the affected building, or an area greater than 15,000 square feet on any given floor, the installation of a negative air cut off switch or switches shall be required at a single location outside the work place, such as inside a stairwell, or at a secured location in the ground floor lobby when conditions warrant. The required switch or switches shall be installed by a licensed electrician pursuant to a permit issued by the Department of Buildings. If negative pressure ventilation equipment is used on multiple floors the cut off switch shall be able to turn off the equipment on

all floors.

(g) On loss of negative pressure or electric power to the negative pressure ventilating units, abatement shall stop immediately and shall not resume until power is restored and negative pressure ventilation equipment is operating again. When power failure or loss of negative pressure equipment lasts or is expected to last longer than one-half hour:

(1) the make-up air inlets shall be sealed airtight, and

(2) the decontamination systems shall be sealed airtight after the evacuation of workers and/or authorized visitors from the work area, and

(3) all adjacent areas shall be monitored for asbestos fiber concentration upon discovery of, and subsequently throughout, the power failure.

(h) Negative pressure ventilation equipment shall be installed and operated to provide at least one air change in the work area every 15 minutes. Where there are no floor or wall barriers because floor or wall material is being abated, there shall be at least one air change in the work area every ten minutes.

(i) Openings made in the isolation barrier to accommodate these units shall be made airtight. The units shall remain within the work area unless located securely outside the building.

(j) Negative air pressure equipment shall be in compliance with ANSI Z9.2 (2006), Local Exhaust Ventilation.

(k) Negative air pressure systems shall be operated in accordance with "Specifications and Operating Procedures for the Use of Negative Pressure Systems for Asbestos Abatement, Guidance for Controlling Asbestos-Containing Materials in Buildings", EPA Report Number 560/5-85-024 (1985).

(l) Negative pressure ventilation equipment shall be exhausted to the outside of the building away from occupied areas.

(1) All openings (including but not limited to operable windows, doors, vents, air intakes or exhausts of any mechanical devices) less than 15 feet from the exterior exhaust duct termination location shall be plasticized with two layers of fire retardant 6-mil polyethylene sheeting, or a second negative pressure ventilation unit with the primary unit's capacity shall be connected in series prior to exhausting to the outside.

(2) Negative pressure ventilation equipment shall exhaust away from areas accessible to the public.

(3) All ducting shall be sealed and braced or supported to maintain airtight joints. Ducts shall be reinforced and shall be installed so as to prevent breakage. Damage to ducts must be repaired immediately.

(m) Where ducting to the outside is not possible, a second negative pressure ventilation unit compatible with the primary unit's capacity shall be connected in series. The area receiving the exhaust shall have sufficient, non-recycling exhaust capacity to the outside of the structure, and must be a normally non-occupied area.

(n) Careful installation shall be done to ensure that the ducting does not release fibers into uncontaminated building areas.

(o) Routine smoke testing, air monitoring and daily inspections shall be performed by the Asbestos Handler Supervisor to ensure that the ducting does not release fibers into uncontaminated building areas.

§1-92 Work Place Entry and Exit Procedures. The following procedures shall be followed during the conduct of abatement activities on asbestos projects:

(a) *Entrance procedures.* (1) All workers and authorized visitors shall enter the work area through the worker decontamination enclosure system.

(2) All individuals who enter the work area shall sign the log located in the clean room, upon each entry and exit. The log shall be permanently bound and shall identify fully the facility, owner, agents, contractor(s), the project, each work area and worker respiratory protection employed. The log shall be available for examination during abatement activities by the Department, the owner and the workers. A copy of the log shall be submitted directly to the Department within 48 hours of request.

(3) All individuals before entering the work area, shall be familiar with all posted regulations, personal protection requirements and emergency procedures. The log headings shall indicate, and the signatures shall be used to acknowledge, that the regulations and procedures have been reviewed and understood by all persons prior to entering the work area. The postings and log headings shall be in English and in the language of the majority of the asbestos handlers.

(4) All individuals shall proceed first to the clean room, remove all street clothing, store these items in clean sealable plastic bags or a locker and don personal protective equipment. Clean personal protective equipment shall be provided and utilized by each individual for each separate entry into the work area.

(b) *Exit procedures.* (1) Before leaving the work area, each individual shall remove the gross contamination from the outside of the respirators and protective clothing by wet cleaning, and/or HEPA vacuuming.

(2) In the equipment room, all personal protective equipment except respirators shall be removed. Disposable clothing shall be deposited into labeled containers for disposal. Reusable contaminated clothing, footwear, and/or head gear shall be stored in the equipment room when not in use.

(3) Still wearing a respirator, each person shall proceed to the shower room, clean the outside of the respirator and the exposed face area under running water prior to removal of the respirator, and then fully and vigorously shower and shampoo to remove residual asbestos contamination. Respirators shall be washed thoroughly with soap and water or a suitable sanitizing agent. Various types of respirators may require slight modification of these procedures.

(4) After showering and drying, personnel shall proceed to the clean room and don clean disposable clothing if returning to the work area or street clothing if remaining outside the work area.

§1-93 Equipment and Waste Container Decontamination and Removal Procedures.

The following procedures shall be followed whenever equipment or containers are removed from the work area during an asbestos project:

(a) When the worker decontamination enclosure system shown in Illustration I alternates as a waste decontamination enclosure system, the clean room shall be considered a holding area during the period of active waste transfer only for the purpose of the loading of carts. Storage of waste and carts in the clean room is prohibited.

(b) Where the waste decontamination enclosure system is part of the worker decontamination enclosure system (see Illustration III), waste removal shall not occur during worker shift changes or when workers are showering or changing. Care shall be taken to prevent short circuiting and cycling of air outward through the shower and clean room.

(c) Where only one means of egress exists and the shower room is used as a waste washroom, workers are to be stationed in each room/area of the decontamination enclosure to transfer/process (see subdivisions (d), (h) and (I) of this section) the containers and equipment to or from adjacent sections. These workers are not to cross into the adjacent areas/rooms until the waste/equipment transfer is finished for that period and the workers have gone through decontaminations required by §1-92 of this chapter. The clean room/holding area workers shall have entered from uncontaminated areas with appropriate personal protective equipment; or prior to the start of waste transfer, these workers shall have exited the work area, fully decontaminated, and subsequently donned clean personal protective equipment.

(d) External surfaces of contaminated containers and equipment shall be cleaned by wet cleaning and/or HEPA vacuuming in the work area before transferring such items into the decontamination enclosure system. Contaminated workers shall not enter the washroom during this procedure.

(e) The cleaned containers of ACM and equipment shall be placed in uncontaminated leak-tight plastic bags or sheeting as the item's physical characteristics demand. Air volume shall be minimized and the bags or sheeting shall be sealed. Items that may puncture or tear the plastic bags or sheeting shall be placed in a hardwall container and sealed.

(f) The clean recontainerized items shall be moved into the airlock for subsequent

transfer to the holding area. The washroom workers shall not enter this airlock or the work area until waste removal is finished for that period.

(g) Recontainerized items and cleaned equipment shall be removed from the airlock to the holding area by workers who have entered from uncontaminated areas with appropriate personal protective equipment.

(h) The recontainerized items of ACM and cleaned, bagged equipment shall be placed in open top, watertight plastic carts. These carts shall be held in the holding area pending removal. The carts shall be HEPA vacuumed or wet-cleaned following the removal of the containers of ACM from them.

(i) The exit from the waste decontamination enclosure system shall be secured to prevent unauthorized entry.

(j) The carts shall be stored in a holding area of the work site.

§1-94 Maintenance of Decontamination Enclosure Systems and Barriers. The following procedures shall be followed during the conduct of abatement activities on asbestos projects:

(a) All plastic barriers inside the work place and partitions constructed to isolate the work area from occupied areas shall be inspected by the asbestos handler supervisor at least twice per shift.

(b) Smoke tubes shall be used to test the integrity of the work area barriers and the decontamination enclosure systems daily at a minimum both before abatement activity begins and at the end of each shift. A visual inspection of the barriers, including the use of differential manometers, shall be considered acceptable as a back-up test.

(c) Damage and defects in the decontamination enclosure system shall be repaired immediately. The decontamination enclosure system shall be maintained in a clean and sanitary condition at all times.

(d) At any time during the abatement activity, if visible emissions are observed, or elevated asbestos fiber counts outside the work area are measured, or if damage occurs to barriers, abatement shall stop. The source of the contamination shall be located, the integrity of the barriers shall be restored, and visible residue shall be cleaned up using appropriate HEPA vacuuming and wet cleaning procedures immediately.

(e) Inspections, observations, and unusual incidents (e.g. barrier damage, contamination beyond the work area, etc.) shall be documented in the log by the asbestos handler supervisor.

(f) The daily inspection to ensure that exits have been checked against exterior blockage or impediments to exiting as per section 1-81(s) shall be documented in the log book.

(g) If exits are found blocked, abatement activities shall stop until the blockage is cleared.

Part 4

Abatement Procedures

§1-101 Applicability
§1-102 ACM Disturbance, Handling and Removal Procedures
§1-103 Encapsulation Procedures
§1-104 Enclosure Procedures
§1-105 Glovebag Procedures
§1-106 Tent Procedures
§1-107 Foam Procedure for Roof Removal
§1-108 Foam/Viscous Liquid Use in Flooring Removal
§1-109 Abatement from Vertical Exterior Surfaces
§1-110 Controlled Demolition With Asbestos In Place

§1-101 Applicability. The following §§1-102 through 1-110 inclusive shall apply to all abatement activities.

§1-102 ACM Disturbance, Handling and Removal Procedures. The following procedures shall be followed during the conduct of abatement activities:

(a) Abatement of asbestos-containing materials shall be by wet methods. ACM shall not be removed or disturbed without being adequately wet. Dry removal of asbestos-containing material is prohibited, unless EPA approval has been obtained. The EPA-approved alternate removal plan shall be submitted to the Department for approval a minimum of 15 days before work is scheduled to begin or begins. The plan shall explain and justify why ACM must be removed dry and how asbestos fibers will be controlled to prevent their release.

(b) When amended water is used, the ACM shall be sprayed with sufficient frequency and quantity for enhanced penetration. Sufficient time shall be allowed for penetration to occur prior to removal action or other disturbance taking place. Accumulation of standing or free water is prohibited. Fluffy materials shall be saturated. Non-hygroscopic materials, such as

tremolite or amosite, shall be thoroughly wetted on all surfaces while work is being conducted.

(c) When used, removal encapsulants that minimize fiber generation and enhance penetration, shall be applied per manufacturer's specifications and in accordance with federal guidelines.

(d) ACM on detachment from the substrate is to be bagged directly or dropped onto a flexible catch basin and promptly bagged. Detached ACM is not permitted to lie on the floor for any period of time. Excess air in the bag shall be minimized and the bag shall be sealed. Non-hygroscopic materials shall not be dropped. ACM shall not be dropped from a height greater than 10 feet. Above 10 feet in height dust-free enclosed inclined chutes may be used. Vertical chutes are prohibited. Maximum inclination from horizontal shall be 60 degrees.

(e) Large components removed intact that cannot be containerized shall be maintained wet, wrapped (minimizing excess air) in at least one layer of fire retardant 6-mil polyethylene sheeting, and secured by sealing with tape.

(f) After completion of all stripping work, surfaces from which asbestos-containing materials have been removed shall be cleaned (e.g. wet-brushed and/or wet-cleaned) to remove all visible residue.

§1-103 Encapsulation Procedures. The following procedures shall be followed for the encapsulation of ACM:

(a) All material used for repair or encapsulation of asbestos-containing material shall have a flame spread rating, fireproofing, and smoke characteristics similar to the material being encapsulated. The encapsulate shall not alter the insulating characteristics of the material subject to encapsulation, and shall comply with current fire proofing standards and the encapsulate shall not add excess weight to the material increasing the potential that the material may lose cohesion or adhesion.

(b) Loose or hanging asbestos-containing materials shall be removed in accordance with the requirements of §1-102: "Disturbance, Handling, and Removal."

(c) Only pigmented (non-transparent) encapsulants shown to be ratable as acceptable or marginally acceptable on the basis of Battelle Columbus Laboratory test procedures and rating requirements developed under the 1978 USEPA contract shall be used for encapsulation.

(d) The encapsulant solvent or vehicle shall not contain a volatile hydrocarbon.

(e) Latex Paint with solids content greater than 15 percent may be used as an encapsulant only as follows:

(1) as a lockdown sealant for coating all non-metallic surfaces, or

(2) for sealing of cementitious ACM.

(f) Encapsulants shall be field tested prior to use by applying each to a small area to determine suitability of the material to be encapsulated.

(1) Testing is to occur only after the isolation barriers are in place.

(2) Testing shall be by the USEPA method specified in the appendix of "Guidelines for the Use of Encapsulants on Asbestos-Containing Materials" (June, 1981) or ASTM Standard Test Method E736-80. The encapsulated materials shall achieve a cohesive/adhesive strength of 100 lb/ft perpendicular to the surface.

(g) Application of bridging encapsulants over ACM shall provide the manufacturer's specified number of inches or minimum dry film thickness.

(h) A different color for each coat of encapsulant (per manufacturer's specifications) shall be used.

(i) Penetrating encapsulants shall be applied to penetrate existing asbestos-containing materials to the substrate. During treatment with a penetrating encapsulant, selected random core samples of the asbestos-containing materials shall be removed to check the depth of penetration. The resulting space shall be treated as outlined (in subdivision (a)) above and re-encapsulated.

(j) Encapsulants shall be applied using airless spray equipment.

(1) Spraying shall occur at the lowest pressure range possible to minimize fiber release from encapsulant impact at the surface. It shall be applied with a consistent horizontal or vertical motion.

(2) Each subsequent coat of encapsulant shall be applied at a right angle to the preceding coat application or per manufacturer's specifications.

(k) Encapsulated asbestos-containing materials shall be identified (e.g. using labels, signs or color coding) in order to warn building maintenance personnel in the event encapsulated materials must be disturbed.

(l) The following maintenance procedures are recommended:

(1) A periodic inspection and maintenance program, consisting of an inspection at least annually to check for damage to all encapsulated surfaces. Recoating and repairs are to be performed according to procedures in this section.

(2) Maintenance of records by the building owner, on the locations and condition of the encapsulated material and on alteration, renovation, modification, or other procedures that resulted in disturbance of the encapsulated material.

(3) When conditions change and encapsulation is no longer an appropriate method, additional abatement methods should be conducted.

§1-104 Enclosure Procedures. The following procedures shall be followed for the

enclosure of ACM:

(a) Loose and hanging asbestos-containing materials that may be disturbed during the installation of hangers or other support/framing materials for the enclosure shall be removed by wet methods in accordance with §1-102: "Disturbance, Handling, and Removal".

(b) After installation of hangers, brackets or other enclosure supports and before installation of enclosure materials, damaged areas of fireproofing/thermal insulation shall be repaired using a replacement material.

(c) Utilities' service components shall be lowered or removed as necessary and reinstalled in a manner which permits proper utilization and does not disturb the integrity of the enclosures.

(d) Enclosed asbestos-containing materials shall be identified (e.g., using a sign, label, or color coding) in order to warn building maintenance personnel in the event that the enclosure must be disturbed.

(e) The following maintenance procedures are recommended:

(1) A periodic inspection and maintenance program, consisting of an inspection at least annually to check for damage to all enclosed surfaces. Re-enclosure and repairs are to be performed according to NYC Work Site Procedure regulations.

(2) Maintenance of records by the building owner, on the locations and condition of the enclosed material and on alteration, renovation, modification, or other procedures resulting in disturbance of the enclosed material.

(3) When conditions change and enclosure is no longer an appropriate method of asbestos abatement, additional abatement methods should be conducted.

§1-105 Glovebag Procedures. The following procedures shall be followed during the conduct of abatement activities:

(a) Glovebag procedures shall be done using commercially available glovebags of 6-mil clear plastic, appropriately sized for the project. Glovebag procedures may only be used in conjunction with the full containment of the work area (see §1-81) or the tent procedure (see §1-106). Glovebags may not be shifted and shall not be moved from the initial surface to another surface, or reinstalled on the initial surface once removed.

(b) The glovebag procedure shall be performed in accordance with the following:

(1) All necessary tools and materials shall be brought into the work area before the glovebag procedure begins.

(2) Air monitoring shall be conducted in accordance with §§1-31 through 1-45.

(3) Glovebag procedures shall be conducted by workers specifically trained in

glovebag procedures and equipped with appropriate personal protective equipment.

(4) The insulation diameter worked shall not exceed one half the bag working length above the attached gloves.

(5) The ACM within the secured glovebag shall be wetted with amended water prior to stripping.

(6) The bag shall be attached over duct tape which has been placed securely around the insulation, forming a smooth seal. The bag shall be securely attached to the insulation in a manner to prevent air transfer.

(7) After placement, each glovebag must pass a smoke test. The glovebag shall be placed under negative pressure utilizing a HEPA vacuum, and a smoke tube shall then be aspirated to direct smoke at all seams and seals from outside the glovebag. Any leaks detected by the smoke test shall be duct taped airtight.

(8) If the insulation adjacent to the section which will be worked on is damaged, or if the insulation terminates or is jointed or contains an elbow adjacent to the work section, the adjacent insulation shall be wrapped in fire retardant 6-mil polyethylene sheeting and sealed airtight with duct tape.

(9) After the insulation has been removed, the surface shall be sprayed with amended water and brush-scrubbed to remove all visible ACM. The surface, the interior of the bag, the insulation and the tools shall then be sprayed with amended water. The enclosed volume shall be misted and time allowed for the mist to settle out before breaking the seal to remove the glovebag.

(10) Any insulation ends created by this procedure shall be:

(i) sealed with encapsulant prior to bag removal, or

(ii) thoroughly wetted before bag removal and sealed with wettable cloth end caps and spray glue or any combination of these materials immediately following bag removal.

(11) The tool pouch shall be separated from the bag prior to disposal by twisting it and the wall to which it is attached several times, and taping the twist to hold it in place, thus sealing the bag and the pouch which are severed at the midpoint of the twist. Alternatively, the tools can be pulled through with one or both glove inserts, thus turning the gloves inside out. The glove(s) is/are then twist sealed forming a new pouch, taped and several mid-seal forming two separate bags.

(12) A HEPA vacuum shall be used for evacuation of the glovebag in preparation for removal of the bag from the surface for clean-up in the event of a spill, and for post project clean-up.

(13) With the glovebag collapsed and the ACM in the bottom of the bag, the bag shall be twisted several times and taped to seal that section during bag removal.

(14) A 6-mil plastic bag shall be slipped around the glovebag while it is still attached to the surface. The bag shall be detached from the surface by removing the tape or cutting the top with blunt scissors.

(15) The asbestos-containing waste, the clean-up materials, and protective clothing shall be wetted sufficiently, double-bagged minimizing air content, sealed separately, and disposed of in conformance with §§1-93 and 1-102 of this chapter.

(c) Reserved.

(d) Glovebag procedures may only be utilized as part of a large or small asbestos project within full containment as set forth in section 1-82 of this chapter, or inside a tent constructed in accordance with section 1-106 of this chapter.

§1-106 Tent Procedures. Tent Procedures shall be conducted as follows:

(a) Tent procedures shall be limited to the removal of less than 260 linear feet and 160 square feet of ACM and shall not result in disturbance of ACM during tent erection. Tent procedures may be used as part of a large asbestos project as provided for in section 1-81(f) or in conjunction with the glovebag procedure set forth in section 1-105 of these rules. Multiple tent enclosures may be used as part of a large asbestos project in conjunction with the use of the glovebag procedure.

(b) Tent procedures shall be accomplished in a constructed or commercially available fire retardant plastic tent, plasticizing and sealing all surfaces not being abated within the tent periphery forming an enclosure. The tent shall be of fire retardant 6-mil plastic at a minimum, with seams heat-sealed, or double-folded, stapled and taped airtight and then taped flush with the adjacent tent wall. This is a single use barrier that shall not be reused once dismantled or collapsed.

(c) There shall be an airlock at the entrance to the tent, unless there is an attached worker or waste decontamination system.

(d) Asbestos handlers involved in the tent procedure shall wear personal protective equipment as specified in §1-51(c), plus a second disposable suit. All street clothes shall be removed and stored in a clean room within the work site. The personal protective equipment with two disposable suits shall be used for installation of the tent and throughout the procedure if a decontamination unit with a shower is not contiguous to the work area. If a decontamination unit (with shower and clean room at a minimum) is contiguous to the work area, only one disposable suit shall be required; in this case, prior to exiting the tent the worker shall HEPA vacuum and wet clean the disposable suit.

(e) The tent shall be attached to the surface to produce an airtight seal except for an appropriate section to allow for make-up air into the tent.

(f) Negative pressure ventilation equipment shall be used to continuously exhaust the enclosed area as specified under §1-91, Engineering Controls.

(g) Removal of ACM shall be by wet methods in accordance with §1-102.

(h) ACM removed shall be placed in a leak-tight container without dropping it.

(i) Upon completion of abatement, and prior to tent collapse, the enclosed surfaces shall:

(1) be wet cleaned using rags, mops or sponges; and

(2) be permitted sufficient time to dry, prior to HEPA vacuuming all substrates; and

(3) be lightly encapsulated to lockdown residual asbestos.

(j) Upon barrier disturbance, loss of engineering controls, or termination of tent usage, the tent and the enclosed surfaces shall be treated according to subdivision (i) above.

(k) The bagged waste shall be wet cleaned or HEPA vacuumed and then transferred outside the tent, double bagged, and appropriately handled prior to disposal.

(l) The outer disposable suit (if 2 suits are worn) shall be HEPA vacuumed in the tent prior to exiting. The outer disposable suit shall be removed in the airlock and a clean suit shall be worn over the inner suit. The workers shall immediately proceed to a shower at the work site. The inner disposable suit and respirator shall be removed in the shower after appropriate wetting. The disposable clothing shall be disposed of as asbestos-containing waste material. The workers shall then fully and vigorously shower with supplied liquid bath soap, shampoo, and clean dry towels.

(m) The negative pressure ventilation equipment shall be used to filter a minimum of 4 volume changes through the tent after completion of abatement but prior to collapse of the tent/barrier. All required air monitoring must be successfully completed before the tent/barrier is collapsed.

(n) The tent shall be collapsed inward, enclosing the contaminated clothing. This contaminated material shall be disposed of in another plastic bag. The HEPA vacuum shall be decontaminated and sealed.

(o) Glovebag procedures for removal of material within the tent for any sized project shall follow the rules set forth in §1-105.

§ 1-107 Foam Procedure for Roof Removal

(a) These procedures apply only to the removal of asbestos-containing roofing material (ACRM) from exterior roof surfaces. The work area on the roof shall be cordoned off with clearly visible barriers such as caution tape, and only authorized persons shall have access. All sections of

these rules shall be followed in conjunction with this section with the exception of §1-41(c), §1-41(d), §1-81(m), §1-81(p), §1-91, §1-102(b), §1-112(d), and §1-112(e).

(b) The foam or viscous liquid shall be non-toxic, shall not require special respiratory protection for handling, and shall not affect the handling and disposal of the waste.

(c) The foam or viscous liquid shall coat and maintain a stable blanket (minimum 1" thickness) for the duration of the removal process and shall leave an identifiable colored residue when it dissipates.

(d) The foam or viscous liquid shall wet the ACRM. The ACRM shall be kept wet through the bagging process.

(e) Persons entering the work area shall wear correctly-fitting, good traction rubber boots.

(f) Abatement shall not be carried out during adverse weather conditions (e.g. precipitation, high winds, ambient temperature below 32 degrees Fahrenheit, etc.).

(g) The worker decontamination unit may be attached to each work area at an entry/exit from each work area in accordance with section 1-82, or may be remote, in which case it shall be equipped with an airlock at the entrance. In addition to the shower head(s), the shower room shall be equipped with a flexible hose for waste decontamination for removal of less than 1,000 square feet of ACRM. For 1,000 square feet or more of ACRM removal, a separate waste decontamination facility as per section 1-83 shall be located at an entry/exit from each work area. Remote holding areas for the asbestos containing waste shall comply with Title 16, Chapter 8, Rules of the City of New York (16 RCNY 8 et seq.)

(h) Movable objects shall be removed from the work area, or kept in place and wrapped in one sheet of fire retardant 6 mil plastic sheeting.

(i) Provisions shall be made to ensure a safe and adequate air supply to affected building(s). All vents, skylights, air intakes, windows and doors opening onto the roof, and all other openings shall be sealed with 2 layers of fire retardant 6 mil plastic or fitting with HEPA-filters when appropriate. Temporary extensions may be installed to a height of 10 feet to ensure adequate air exchange instead of sealing vents, air intakes, etc, with 2 layers of plastic or HEPA-filters. Drains may be equipped with 5 micron filtering system in lieu of being sealed.

(j) Fixed objects including perimeter walls, bulkheads, cooling towers, ducts and other rooftop appurtenances shall be covered in one sheet of fire retardant 6 mil plastic up to a height of at least six feet.

(k) Prior to actual removal, the built-up roofing shall be blanketed and wetted with a minimum 1" coating of the acceptable foam or viscous liquid which shall be maintained for the duration of the removal until the material is bagged. The foam or viscous liquid shall be confined to the work area.

(l) Hand-held power tools used to drill, cut into, or otherwise disturb the ACRM shall be equipped with the HEPA-filtered local exhaust ventilation and operated to prevent potential fiber

release.

(m) Clean-up procedures shall include the removal and bagging of ACRM, the removal of all visible accumulations of asbestos containing waste, and the removal of all excess foam or similar viscous liquids. Following the removal of all debris, the work area shall be thoroughly wet cleaned.

(n) The work area shall be allowed to dry completely before the visual inspection is conducted. The project monitor and asbestos handler supervisor shall confirm the absence in the work area of ACM, asbestos-containing waste or debris, and foam or other viscous liquid.

(o) Upon successful visual inspection, all installed plastic sheeting shall be removed.

(p) Air monitoring shall be conducted in accordance with the relevant provisions of subchapter D of these rules.

§1-108 Foam/Viscous Liquid Use in Flooring Removal

(a) These procedures only apply to the removal of vinyl asbestos floor tiles (VAT), ACM floor coverings (e.g., linoleum) and associated mastics and adhesives, where the only ACM being abated in the work area is flooring material. All sections of these rules shall be followed in conjunction with this section with the exception of §1-41(c), §1-41(d), §1-81(m), §1-81(p), §1-91(c), §1-91(h), §1-102(b), §1-112(d), and §1-112(e).

(b) The foam or viscous liquid shall be non-toxic, shall not require special respiratory protection for handling, and shall not affect the handling and disposal of the waste.

(c) The foam or viscous liquid shall coat and maintain a stable blanket (minimum 1" thickness) for the duration of the removal process and shall leave an identifiable colored residue when it dissipates. The acceptable foam or viscous liquid shall be maintained for the duration of the removal until the material is bagged.

(d) The foam or viscous liquid shall coat and wet the ACM. The ACM shall be kept wet through the bagging process.

(e) Persons entering the work area shall wear correctly-fitting, good-traction rubber boots.

(f) Baseboards and wall surfaces up to a minimum height of four feet above the floor shall be covered with a layer of fire retardant 6-mil plastic sheeting. If hand power tools are used during the abatement, wall surfaces shall be covered with a layer of 6-mil polyethylene sheeting to a minimum height of six feet.

(g) Negative air pressure ventilation shall be provided to allow make-up air into the work area, and the air outlet from the work area shall be at or near the floor level.

(h) Clean-up procedures shall involve removal and bagging of the ACM, of visible accumulations of asbestos containing waste, and of all traces of foam or similar viscous liquid.

Following the removal of all debris, the work area shall be thoroughly wet cleaned and HEPA-vacuumed.

(i) The work area shall be allowed to dry completely before the visual inspection is conducted. The project monitor and asbestos handler supervisor shall confirm the absence in the work area of ACM, asbestos-containing waste or debris, and foam or other viscous liquid.

(j) Upon successful visual inspection, plastic sheeting shall be removed from baseboards and wall surfaces. Isolation barriers shall remain in place.

(k) Air monitoring shall be conducted in accordance with the relevant provisions of subchapter D of these rules.

§ 1-109 Abatement from Vertical Exterior Surfaces

This section shall apply to projects involving the abatement of asbestos-containing materials from the vertical exterior surfaces of a building or structure, including but not limited to the following materials:

Caulking or glazing compounds
Asphaltic mastic or tar (e.g., flashing on parapet walls)
Cement siding or shingles (including Transite)
Paints
Sealants for coping stone caps or clay roofing tiles

All applicable sections of these rules shall be followed in conjunction with this section except sections 1-41(c), 1-41(d), 1-81(p), 1-82(a), 1-83(b), and 1-91.

(a) The work area shall be prepared as follows:

(1) The entire surface to be abated and ground-level perimeter shall be considered the work area unless partitions and warning tape are used to define the work area.
(2) A restricted area shall be established using warning tape extending at least 25 feet from the affected areas of the building or to the nearest vertical obstruction or the curb.
(3) The restricted area may be entered only by certified workers or authorized visitors.
(4) Before plasticizing, the restricted area shall be inspected for ACM debris and, if necessary, pre-cleaned using HEPA vacuums and wet methods.
(5) All openings to the building or structure's interior which are within 25 feet of the affected ACM shall be closed and sealed.
(6) Scaffolding erected to access the ACM shall be constructed, maintained, and used in accordance with applicable federal, state, and city laws.
(7) Horizontal surfaces beneath the affected ACM shall be covered with two layers of fire-retardant 6-mil plastic to a width of six feet.

(8) Elevated platforms being used to access the affected ACM shall be plasticized with two layers of fire-retardant 6-mil plastic, which shall extend up from the platform to at least the height of the mid-rail on three sides, and shall be attached directly to the building just below the surfaces under abatement.
(9) The ground-level restricted area shall be cleared of all moveable objects and plasticized with two sheets of fire-retardant 6-mil plastic, which shall be extended one foot up the side of the building. The plasticized area shall be ten feet wide for every floor up to a maximum width of thirty feet, or to the curb. This plastic shall be cleaned, replaced, and disposed of as asbestos waste at the end of each shift.
(10) Sidewalk bridges in the restricted area shall be covered with two layers of fire-retardant 6-mil plastic, placed over and secured to the bridge, spread across the full width, draped over the side to ground level, and extended to a width of at least thirty feet.

(b) A worker/waste decontamination system shall be constructed within the restricted area.

(c) Cleanup Procedure

(1) The stripped substrate shall be HEPA vacuumed and wet-wiped.
(2) A visual clearance inspection shall be conducted by the asbestos handler supervisor and project monitor after the work area dries, to ensure the absence of ACM residue or debris in the work area.
(3) After the inspection is completed, the warning tapes and barriers may be removed.
(4) The clearance inspection shall be documented in the log and the project air sampling log.

(d) Air monitoring shall be conducted in accordance with the relevant provisions of subchapter D of these rules.

§1-110 Controlled Demolition with Asbestos in Place. (a) A building or structure may be demolished with asbestos in place only if the building is in imminent danger of collapse as set forth in section 28-215.1 of Title 28 of the Administrative Code and/ or 56 NYCRR 11.5(c).

(b) A copy of the condemnation letter shall be provided to DEP.

(c)The demolition shall be performed in accordance with section 28-215.1 of Title 28 of the Administrative Code and/or 56 NYCRR 11.5 (c).

Part 5

Clean-up Procedures

§1-111 Preliminary Clean-up Procedures
§1-112 Additional Clean-up Procedures (Final)

§1-111 Preliminary Clean-up Procedures. The following clean-up requirements shall be followed during the conduct of abatement activities on asbestos projects:

(a) (1) All waste generated shall be bagged, wrapped or containerized immediately upon removal. The personal and waste decontamination enclosure systems and floor and scaffold surfaces shall be HEPA vacuumed and wet cleaned at the end of each work shift at a minimum.

(2) Visible accumulations of asbestos-containing waste material shall be containerized utilizing non-metallic dust pans and non-metallic squeegees or HEPA vacuums.

(3) Metal shovels shall not be used to pick up or move accumulated asbestos-containing waste material or any other debris in the vicinity of isolation or surface barriers.

(b) The waste decontamination enclosure system shall be wet cleaned twice using wet cleaning methods upon completion of waste removal. When the worker decontamination enclosure shower room alternates as a waste container wash room, the shower room shall be washed immediately with cloths or mops saturated with a detergent solution prior to wet cleaning.

(c) The worker decontamination enclosure system shall be wet cleaned/HEPA vacuumed, as appropriate, after each shift change and meal break.

(d) Excessive water accumulation or flooding in the work area shall require work to stop until the water is collected and disposed of properly.

§1-112 Additional Clean-up Procedures (Final). Additional clean-up procedures shall be performed in the order set forth below prior to commencement of clearance air monitoring.

(a) After removal of visible accumulations of asbestos-containing waste material, a HEPA vacuuming shall be performed on all surfaces. To pick up excess water and gross saturated debris, a wet-dry shop HEPA vacuum, dedicated to asbestos abatement, may be used.

(b) All surfaces in the work area shall be wet cleaned (first cleaning).

(c) A thin coat of lockdown encapsulant shall be applied to all surfaces in the work area which were not the subject of removal or abatement , including the cleaned layer of the surface barriers, but excepting sprinklers, standpipes, and other active elements of the fire suppression system.

(d) After the first cleaning, the work area shall be vacated for 12 hours to allow fibers to settle.

(e) The cleaned and encapsulated layer of the surface barriers shall be removed from the walls and floors.

(f) All objects and surfaces in the work area shall be HEPA vacuumed and wet cleaned a second time.

(g) After the second cleaning, the work area shall be vacated for 4 hours.

(h) The remaining plastic barriers shall be removed from the walls and floors. All objects and surfaces in the work shall be HEPA vacuumed and wet cleaned a third time.

(i) As a prerequisite to commencement of clearance air monitoring, a thorough visual inspection shall verify the absence of asbestos-containing waste material (e.g. dust).

(j) All containerized waste shall be removed from the work area through the decontamination enclosures and the holding area.

(k) All tools and equipment shall be removed from the work area and decontaminated in the waste decontamination enclosure system. Cloths, mops, and other cleaning aids shall be disposed of as asbestos-containing waste material.

(l) After successful clearance air monitoring (see §1-31 et seq.), the isolation barriers shall be removed in conjunction with the use of a HEPA vacuum.

(m) Within 21 days of the completion of all steps set forth above, including successful clearance air monitoring, a project monitor's report shall be submitted to DEP on a DEP-approved form. If a project is being performed on multiple floors of a building, a separate project monitor's report may be submitted as each floor is completed.

Subchapter G

Pre-Demolition Abatement Activity Procedures

1 Applicability
2 Work Procedures

Part I
Applicability

§1-120 Applicability of Regulations to Pre-Demolition Abatement Activities. The following regulations shall apply to pre-demolition abatement activities:

§§1-01 through	1-61	General Regulations
	1-82	Worker Decontamination Enclosure System
	1-83	Waste Decontamination Enclosure System

1-91 through 1-94	Work Place Procedures
1-102	ACM Disturbance, Handling and Removal Procedures
1-105	Glovebag Procedure
1-106	Tent Procedure
1-107	Foam Procedure for Roof Removal
1-108	Foam/Viscous Liquid Use in Flooring Removal
1-109	Abatement from Vertical Exterior Surfaces
1-120 through 1-128	Pre-Demolition Abatement Activity Procedures

Part II
Work Procedures

§ 1-125 Work Area Preparation
§ 1-126 ACM Procedures: Order of Work
§ 1-127 Clean-Up Procedures During Abatement
§ 1-128 Clean-Up Procedures: Preparation for Clearance Air Monitoring

§ 1-125 Work Area Preparation. The following work area preparation shall be followed during the conduct of pre-demolition abatement activities:

(a) Prior to the start of abatement activities, the building owner or designated representative shall post a general notification at all main entrances to the structure. Postings of this notification shall be in English and Spanish, at eye level in a conspicuous well-lit place that can be viewed by the public without obstruction. Information provided in the notification shall include contractor, project location, that the project is regulated by NYC DEP, and the Call Center "311" for government information and services. The notice shall have the following heading: NOTICE OF ASBESTOS ABATEMENT, in a minimum of 2 inches sans serif, gothic or block style lettering, with the balance of the lettering of the notice to be of the same type lettering in a minimum of 1 inch size. The notification shall be posted throughout all abatement activities.

(b) The building shall be vacated prior to the start of abatement activities.

(c) Electric power to all work areas shall be shut down and locked out. Safe temporary power and lighting shall be provided in accordance with all applicable NYC Code(s) and Regulations. Existing light sources (e.g., house lights) shall not be utilized. All power to a work area shall be brought in from outside the area through ground- fault interrupter at the source.

(d) The worker decontamination enclosure system shall be installed or constructed prior to plasticizing the work area and before disturbing ACM. The waste decontamination enclosure system shall be installed or constructed prior to commencement of abatement. The area in which there systems are located shall require HVAC system isolation and plasticizing of electrical outlets and equipment that are within 6 inches of floor level.

(e) Heating, Ventilation and Air Conditioning (HVAC) System shall be shut down and locked out. Isolation barriers shall be installed to prevent interior duct work contamination.

(f) Abatement shall not commence until work place preparation has been completed.

(g) Methods that raise dust, such as sweeping or vacuuming with equipment not equipped with HEPA filters, are prohibited.

(h) Objects which can be removed from the work area prior to abatement without disturbing ACM shall be pre-cleaned using HEPA-filtered vacuum equipment and/or wet cleaning.

(i) The isolation barriers (i.e. sealing off of all openings, including but not limited to windows, corridors, doorways, barriers, skylights, ducts, grills, diffusers, and any other penetrations of the work areas) shall be installed with 2 layers of fire retardant 6-mil plastic sheeting separately sealed with tape. All seams of HVAC or other system components that pass through the work area shall also be sealed. Chimney effects in stacks, columns, flues, shafts, double- walled enclosures, etc., that impact the work area, shall be eliminated by sealing the accesses with solid material covered with a double layer of 6-mil plastic sealed with tape.

(j) Cinderblock and porous construction materials shall be covered with one layer of fire retardant 6- mil plastic sheeting, sealed at edges and seams.

(k) Flooring within the area shall be water-tight.

(l) Suspended ceiling tiles and T-grid components in proximity to friable ACM shall remain in place until the work area has been fully prepared as outlined in this section and electrical and HVAC systems have been shut down. Contaminated suspended ceiling components shall be removed prior to abatement and treated with a penetrating encapsulant.

(m) Required means of egress, including emergency and fire exits, shall be maintained at all times during abatement activities except as otherwise provided pursuant to section 3303 of the New York City Building Code. Exits shall be checked daily against blockage or impediments to exiting.

(n) Entrances to the work area that will be used for worker entry or emergency exits shall be locked against unauthorized entry.

(o) Elevators running through the work area shall conform to the following:

(1) The elevator door in the work area shall be enclosed with conventional 2 x 4 stud framing, covered with ⅜" fire rated plywood sheeting and sealed at all edges and seams. The barrier shall be covered and lapped for 8 inches with two layers of fire retardant 6-mil plastic sheeting adhered individually with edges taped for airtightness.

(2) Elevators not remaining in service shall have the fuses removed and the power switch locked in the open position.

(3) Elevators that remain in service shall conform to the following additional procedures to minimize the piston effect that results:

(i) Elevator control shall be modified to bypass the work area.

(ii) A final larger layer of fire retardant 6-mil plastic sheeting is to be taped airtight but with slack forming a larger perimeter diaphragm. Air leakage across the barrier shall be corrected upon discovery, and the elevator shaft shall be checked for airborne asbestos contamination.

(iii) This system shall be smoke tested daily.

(p) Adequate toilet facilities shall be provided in the vicinity of the clean room external to the work place. Where such facilities do not exist, portable service shall be provided.

§1-126 ACM Procedures: Order of Work. No ACM removal shall be performed in a building concurrently with the full demolition of such building or with the removal of one or more stories of such building, except as otherwise provided in these rules pursuant to Sections 1-03 and 1-26. This subsection shall not apply to emergency work being performed pursuant to article 215 of chapter 2 of title 28 of the administrative code.

§1-127 Clean-up Procedures during Abatement. The following clean-up procedures shall be followed during conduct of pre-demolition abatement:

(a) (1) All waste generated shall be bagged, wrapped, or containerized immediately upon removal. The personal and waste decontamination enclosure systems shall be HEPA vacuumed and wet cleaned at the end of each work shift at a minimum.

(2) Visible accumulations of asbestos-containing waste material may be containerized utilizing rubber dust pans and rubber squeegees or HEPA vacuums. Metal shovels may also be used EXCEPT in the vicinity of isolation or surface barriers which could be perforated by these tools.

(b) The waste decontamination enclosure system shall be wet cleaned twice using wet cleaning methods upon completion of waste removal. When the worker decontamination enclosure shower room alternates as a waste container wash room, the shower room shall be washed immediately with cloths or mops saturated with a detergent solution prior to wet cleaning.

(c) The worker decontamination enclosure system shall be wet cleaned/HEPA vacuumed, as appropriate, after each shift change and meal break.

(d) Excessive water accumulation or flooding in the area shall require work to stop until the water is collected and disposed of properly.

§1-128 Clean-up Procedures: Preparation for Clearance Air Monitoring. The following final clean-up procedures for pre-demolition abatement shall be performed prior to commencement of clearance air monitoring:

(a) All visible accumulations of asbestos-containing waste material shall be removed and containerized. Metal shovels may be used to pick up or move accumulated waste EXCEPT in the vicinity of plastic sheet isolation and surface barriers which could be perforated by these

tools. The areas around the plastic sheet isolation barriers shall be cleaned of visible accumulations utilizing rubber dust pans and rubber squeegees. To pick up excess water and gross wet debris, a wet-dry shop HEPA vacuum dedicated to asbestos abatement may be used.

(b) All containerized waste shall be removed from the work area through the decontamination enclosures and the holding area.

(c) All surfaces in the work area shall be wet cleaned using rags or mops. After allowing sufficient time for drying of the work area, HEPA vacuums shall be used to thoroughly clean all surfaces after gross clean-up.

(d) Where porous construction materials or cinder block-like materials have been plasticized for surface barrier containment, the plastic sheeting shall be cleaned as in subdivision (c) above, then sprayed with a lockdown encapsulant and removed when dry.

(e) All surfaces in the work area which were not the subject of removal or abatement shall be sprayed with a lockdown encapsulant, which upon drying will not dissolve upon rewetting. Sufficient time for drying shall be allowed.

(f) All tools and equipment shall be removed from the work area and decontaminated in the equipment decontamination enclosure system.

(g) After successful clearance air monitoring (see §1-31 et seq.) the isolation barriers shall be removed in conjunction with the use of a HEPA vacuum.

(h) Within 21 days of the completion of all steps set forth above, including successful clearance air monitoring, a project monitor's report shall be submitted to DEP on a DEP-approved form. If a project is being performed on multiple floors of a building, a separate project monitor's report may be filed as each floor is completed.

Large Asbestos Project

(Small Asbestos Project Option)

Worker Decontamination Enclosure System

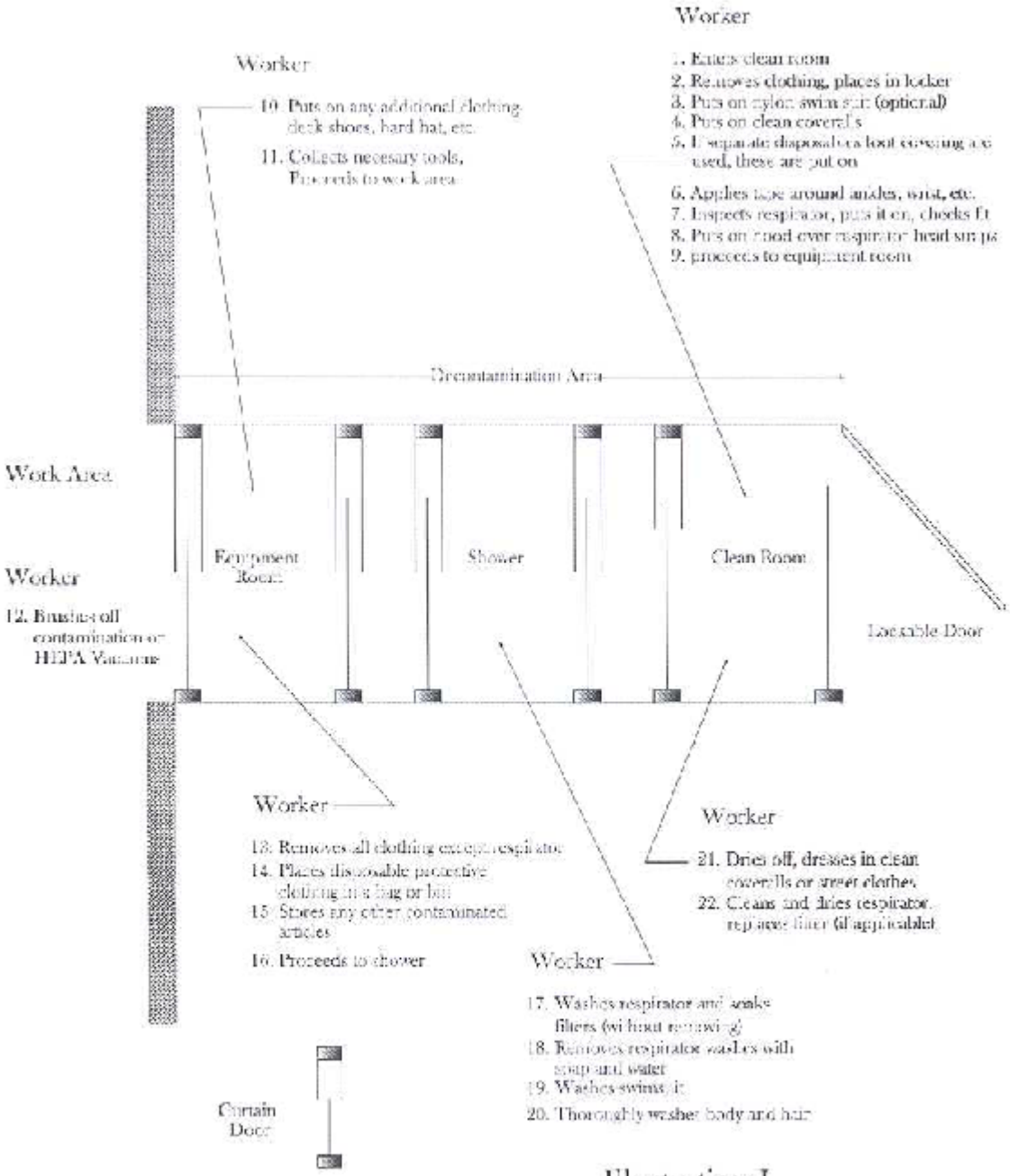

Illustration I

Large Asbestos Project

(Small Asbestos Project Option)

Waste Decontamination Enclosure System

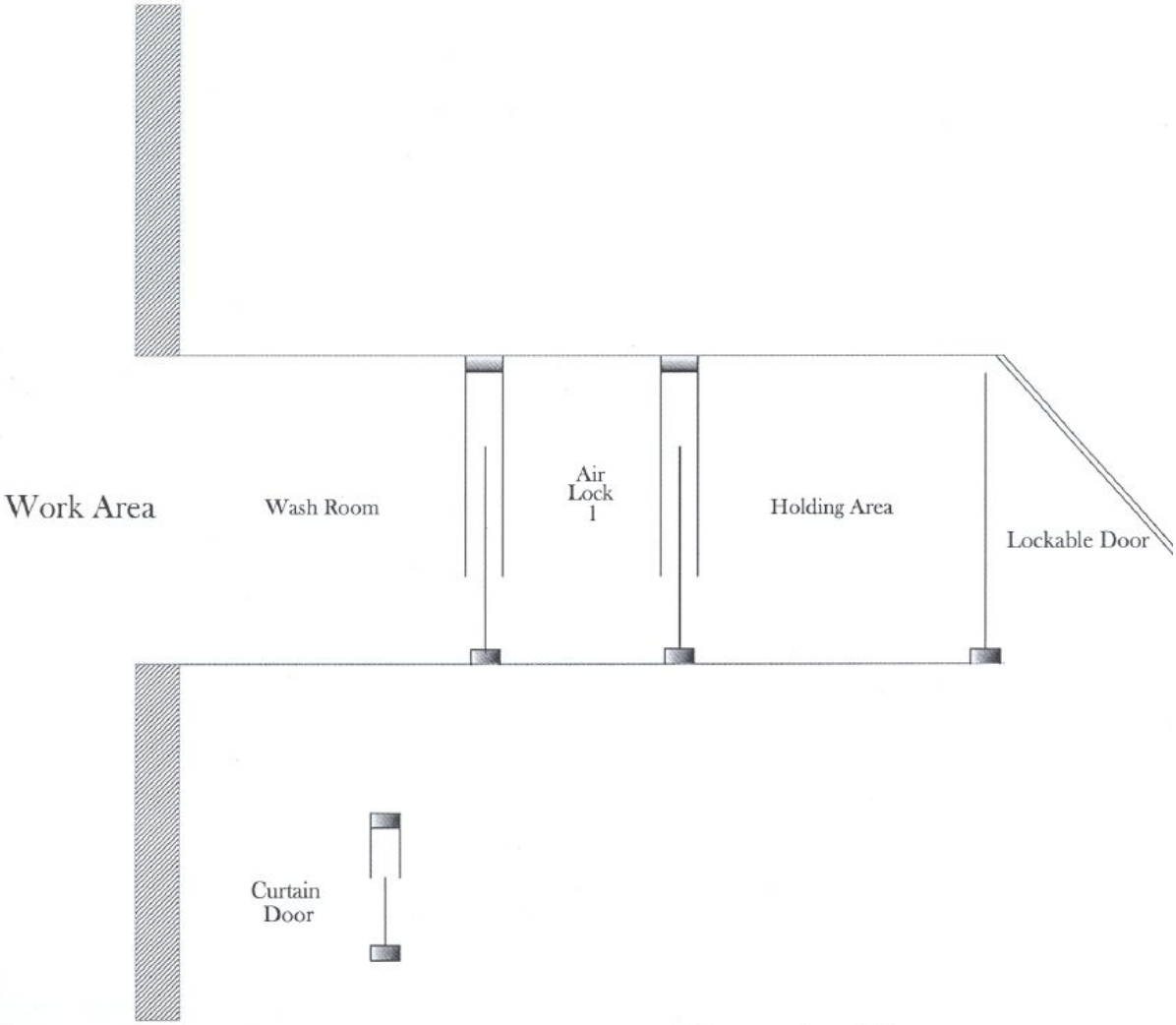

Illustration II

Large Asbestos Project

(Small Asbestos Project Option)

Parallel Worker and Waste Decontamination Enclosure System

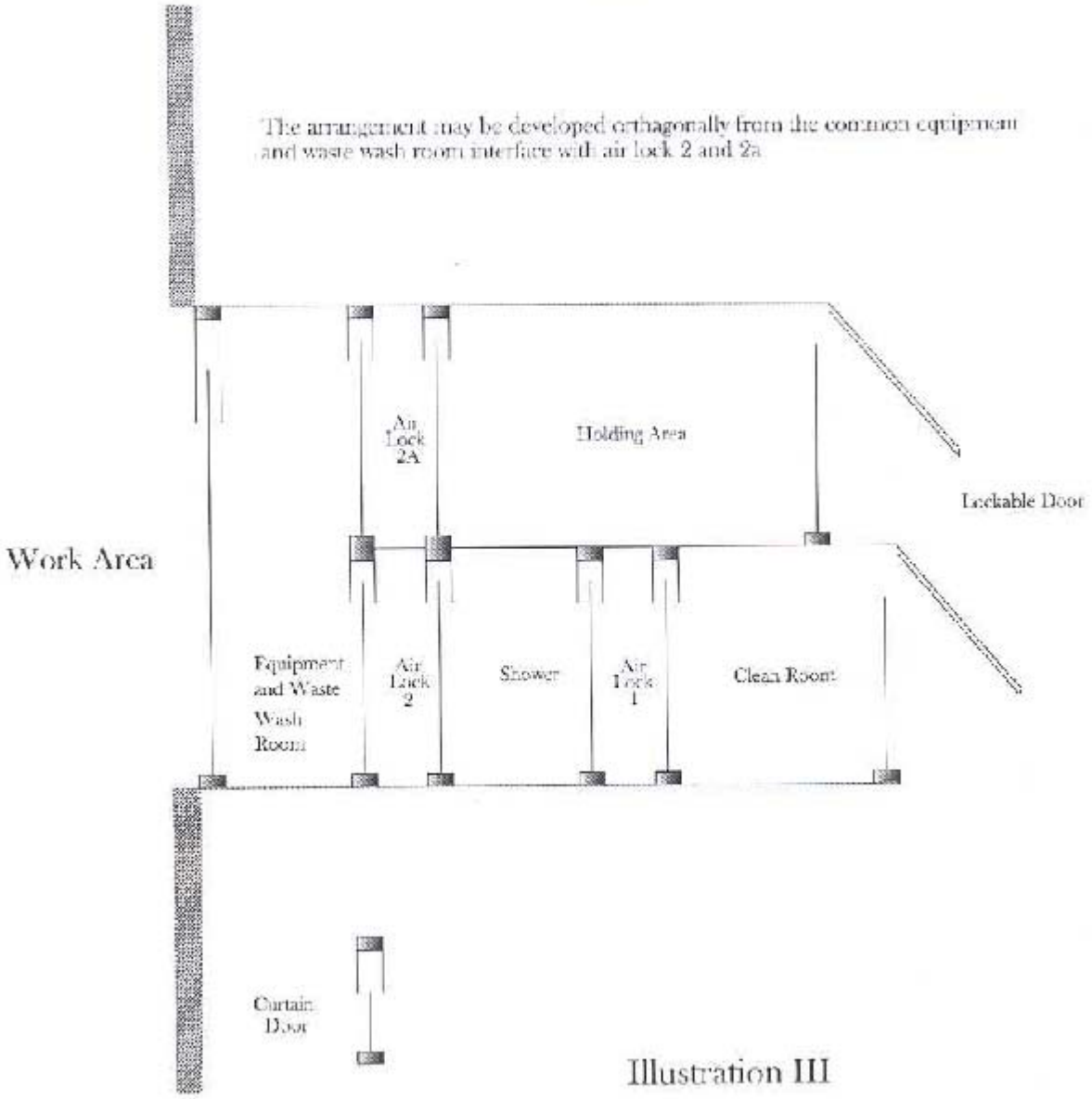

Illustration III