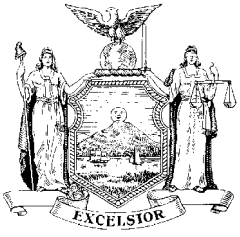
NYC 9/11 Public Portal Document

ASBESTOS

(Statutory Authority: Labor Law Section 906)

Part 56 of Title 12 of the Official Compilation of Codes,
Rules and Regulations of the State of New York
(Cited as 12 NYCRR Part 56)



As Amended
Effective _____

State of New York
Department of Labor

CITY_21MC100_003246493

NYC-WTC_000438568

NYC 9/11 Public Portal Document

TABLE OF CONTENTS

SUBPART 56-1 GENERAL PROVISIONS **5**

56-1.1 Title and Citation. 5
56-1.2 Purpose and Intent of Part. 5
56-1.3 Application. 5
56-1.4 Responsibility of General Contractor or Construction Manager. 6
56-1.5 Responsibility for Cleanup of Uncontrolled Disturbance. 6
56-1.6 Other Codes. 6

SUBPART 56-2 DEFINITIONS **7**

56-2.1 Terms. 7
Table 1 9

SUBPART 56-3 ADMINISTRATIVE **20**

56-3.1 Licensing Requirements and Procedures. 20
56-3.2 Certification Requirements and Procedures. 22
56-3.3 Replacement of Licenses and Certificates. 27
56-3.4 Notice and Record-keeping Requirements. 28
56-3.5 Emergency Asbestos Project Notification. 33
56-3.6 Notification of Residential and Business Occupants. 33

SUBPART 56-4 GENERAL PROJECT AIR SAMPLING & LAB ANALYSIS REQUIREMENTS **36**

56-4.1 Qualifications of Air Sampling Personnel. 36
56-4.2 Laboratory Certification. 36
56-4.3 Independent Third Party Sampling and Analysis. 36
56-4.4 Asbestos Contractors Allowed to Perform Project Air Sampling on an Asbestos Project. 36
56-4.5 Air Sample Log. 36
56-4.6 Test Methods. 37
56-4.7 Air Sampling Equipment. 37
56-4.8 Area Air Sample Analysis and Results – General Requirements. 38
56-4.9 Number and Location of Samples Required 38
56-4.10 Work Stoppage Criteria During Phase II A through II C. 39
56-4.11 Phase II C Satisfactory Clearance Air Sample Results Criteria. 39
56-4.12 Unsatisfactory Clearance Air Sample Results. 40
Table 2 41

SUBPART 56-5 PHASE IA: ASBESTOS SURVEY PLANNING AND DESIGN **42**

56-5.1 Asbestos Survey Requirements 42

SUBPART 56-6 PHASE 1B: BACKGROUND AIR SAMPLING **48**

56-6.1 General Requirements. 48
56-6.2 Number and Location of Background Air Samples. 48
56-6.3 Establishment of Background Level. 48

SUBPART 56-7 PHASE II A WORK AREA PREPARATION **49**

56-7.1 Air Sampling Requirements. 49
56-7.2 Materials and Equipment. 50
56-7.3 Asbestos Abatement Contractor Daily Project Log. 51
56-7.4 Establishing Each Regulated Abatement Work Area. 52
56-7.5 Personal and Waste Decontamination System Enclosures 52
(a) Installation. 52

CITY_21MC100_003246494

NYC-WTC_000438569

NYC 9/11 Public Portal Document

(b) Personal Decontamination System Enclosure - Large Project. 53
(c) Personal Decontamination System Enclosure - Small Project. 55
(d) Remote Personal Decontamination System Enclosure. 55
(e) Waste Decontamination System Enclosure - Large & Small Projects. 57
(f) Waste Decontamination System Enclosure -- When Remote Personal Is Allowed. 58
Figure 1 59
Figure 2 59
Figure 3 60
Figure 4 60
56-7.6 Personal Protection Equipment (PPE). 61
56-7.7 Electric Power. 61
56-7.8 Engineering Controls. 62
56-7.9 Heating, Ventilation, and Air Conditioning (HVAC) Systems 65
56-7.10 Regulated Abatement Work Area Pre-Cleaning. 66
56-7.11 Regulated Abatement Work Area Enclosure. 67
(a) Critical Barriers. 67
(b) Isolation Barriers. 67
(c) Removal of Mounted Objects. 68
(d) Elevator Shutdown or Isolation. 68
(e) Floor, Wall & Ceiling Plasticizing and Sealing. 68
(f) Barrier/Plasticizing Exemptions. 68
(1) Negative Pressure Tent Regulated Abatement Work Area Enclosure. 68
(2) Fire-Retardant Spray Plastic. 70
(3) Special Projects. 70
(4) Removal of Ceilings and Components. 70
(5) Exits. 71
(g) Toilet Facilities. 71

SUBPART 56-8 PHASE II B ASBESTOS ABATEMENT 72

56-8.1 Air Sampling Requirements. 72
56-8.2 Access to & Maintenance of Decon. Systems & Regulated Abatement Work Area Enclosures. 72
56-8.3 Regulated Abatement Work Area Entry and Exit Procedures. 75
56-8.4 Handling and Removal Procedures. 77
56-8.5 Waste Clean-Up Procedures. 79
56-8.6 Multiple Removals within a Single Regulated Abatement Work Area. 79
56-8.7 Encapsulation Procedures. 82
56-8.8 Asbestos Material Encasement/Enclosure Procedures. 83
56-8.9 Equipment and Waste Container Decontamination and Removal Procedures. 84

SUBPART 56-9 PHASE II C FINAL CLEANING AND CLEARANCE PROCEDURES 87

56-9.1 Final Cleaning Procedures. 87
56-9.2 Air Sampling Requirements. 89
(a) Personal Air Sampling. 89
(b) Daily Air Sampling. 89
(c) Exemption From Daily Air Sampling. 89
(d) Clearance Air Sampling. 89
(e) Exemption From Clearance Air Sampling. 91
(f) Satisfactory Clearance Air Sample Results. 91
(g) Unsatisfactory Clearance Air Sample Results. 91
56-9.3 Dismantling of Regulated Abatement Work Area. 92

SUBPART 56-10 PHASE II D FINAL WASTE REMOVAL FROM SITE REQUIREMENTS. 94

56-10.1 Air Sampling Requirements. 94
(a) Satisfactory Clearance Air Results. 94
56-10.2 Removal of Tools and Equipment. 94
56-10.3 Removal of Remote Decontamination Enclosure. 94

CITY_21MC100_003246495

NYC-WTC_000438570

NYC 9/11 Public Portal Document

56-10.4 Removal of Waste from the Site. 94

SUBPART 56-11 SPECIAL PROJECTS SECTION **95**

56-11.1 In-Plant Operations. 95
56-11.2 Emergency Projects. 97
56-11.3 Minor Asbestos Projects. 98
56-11.4 Pre-Demolition Asbestos Abatement Projects. 100
56-11.5 Demolition with Asbestos in Place. 102
56-11.6 Exterior Project Removal of Non-friable ACM Roofing, Siding, Caulking, Glazing Compound, Tars, Sealers, Coatings, and Other Non-friable ACMs. 103
56-11.7 Non-friable Flooring and/or Mastic Removal. 107
56-11.8 Abandoned Pipe/Duct/Conduit Wrap and Cut Removal. 108

SUBPART 56-12 MISCELLANEOUS **110**

56-12.1 Severability. 110
56-12.2 Variances. 110
56-12.3 Applicable Variances (AVs). 110
56-12.4 Right of Entry. 110

CITY_21MC100_003246496

NYC-WTC_000438571

NYC 9/11 Public Portal Document

SUBPART 56-1

GENERAL PROVISIONS

56-1.1 Title and Citation. Within and for the purposes of the Department of Labor, this Part may be known as Industrial Code Rule 56, relating to hazards to the public safety and health, during the removal, encapsulation, enclosure, repair, or the disturbance of friable and non-friable asbestos, or any handling of asbestos material that may result in the release of asbestos fiber. It may be cited as Rule 56 Asbestos as an alternative and without prejudice to its designation and citation established by the Secretary of State.

56-1.2 Purpose and Intent of Part.

(a) **Legislative Concern.** The legislature has declared that exposure to asbestos fibers, a known carcinogenic agent, creates a serious risk to the public safety and health and that the public is more frequently exposed to these risks as a result of an increasing number of rehabilitation, reconstruction and demolition projects on buildings or structures containing asbestos or asbestos materials.

(b) **Purpose and Intent.** It is the purpose and intent of this Part to reduce the risks to the public associated with exposure to asbestos and to conform to Federal requirements set forth in the Asbestos Hazard Emergency Response Act (AHERA), National Emission Standards for Hazardous Air Pollutants (NESHAP) and Occupational Safety and Health Administration (OSHA) Asbestos Standard for the Construction Industry, by requiring appropriate training and certification of persons employed in all aspects of an asbestos project, as well as those who supervise and employ them; by requiring the licensing of asbestos contractors; by setting forth standards and procedures that shall be followed when removing, enclosing, encapsulating, repairing, or disturbing friable or non-friable asbestos or handling asbestos or asbestos materials in a manner which may result in the release of asbestos fiber; by requiring notification of the Department of Labor prior to commencement of Large asbestos projects; by requiring notification of building/structure occupants; by requiring asbestos surveys; by setting forth record-keeping and reporting requirements for asbestos contractors; and by establishing an inspection and enforcement program within the Department of Labor.

56-1.3 Application. This Part shall apply throughout the State of New York to the State, any political subdivision of the State, public authorities, or any other governmental agencies or instrumentalities thereof, self-employed persons, companies, unincorporated associations, firms, partnerships or corporations, and any owners or operators thereof, which engage in an asbestos project, retain sub-contractors to engage in an asbestos project, or employ persons in the conduct of any phase of an asbestos project, including planning, design, monitoring, sampling, inspection, or actual abatement. This Part shall not apply to:

CITY_21MC100_003246497

NYC-WTC_000438572

(a) owner-occupied single family dwellings, where the owner performs the work.

(b) the manufacture of asbestos or asbestos material, or to manufacturing processes involving the use of asbestos or asbestos material.

56-1.4 Responsibility of General Contractor or Construction Manager. All general contractors or construction management firms performing a supervisory role on a demolition, renovation, remodeling or repair project, that includes work covered by this Part, shall be deemed to exercise general supervisory authority over the work covered by this Part. As supervisor of the entire project, the general contractor or construction manager shall ascertain whether the asbestos contractor is in compliance with this Part, and shall require such asbestos contractor to come into compliance with this Part when necessary.

(a) All general contractors and construction managers on a demolition, renovation, remodeling, or repair project, which includes work covered by this Part, shall inform all trades on the work site about PACM, ACM and asbestos material (known and assumed) at the work site, and shall prohibit its disturbance by any trade other than the asbestos contractor.

56-1.5 Responsibility for Cleanup of Uncontrolled Disturbance. If there is an incidental disturbance or intentional disturbance (not as part of a controlled asbestos project) of ACM, PACM, asbestos material, or suspect miscellaneous ACM assumed to be ACM at a building or structure, upon discovery of the disturbance the property owner shall be responsible for contracting with a licensed asbestos contractor for immediate isolation of the disturbance and cleanup in accordance with all provisions of this Part.

56-1.6 Other Codes. All other Codes shall apply, including but not limited to, "The New York State Uniform Fire Prevention and Building Code" or its successor.

SUBPART 56-2

DEFINITIONS

56-2.1 Terms. As used in or in connection with this Part, the following terms mean:

(a) **Abatement.** Any portion of an asbestos project that includes procedures to control fiber release from asbestos containing material. This includes removal, encapsulation, enclosure, repair, or handling of asbestos material that may result in the release of asbestos fiber.

(b) **Accepted Methods/Methodologies.** Procedures, regulations, or standards, which are published by recognized standards organizations (e.g. NIOSH, ASTM, ANSI), or are included within federal, state or local governmental regulations (e.g. OSHA, USEPA).

(c) **Active Project.** A project becomes active when construction of the personal decontamination unit is required to be commenced, or when ACM, PACM or asbestos material is disturbed, whichever comes first, and is considered active until completion of Phase IID, unless, in response to a written request, permission is granted by the Department of Labor Engineering Services Unit to suspend the work on the project for a specified time period.

(d) **Additional Contractual Work**. Additional asbestos abatement work not originally included within the NYS DOL asbestos project notification.

(e) **Adequately Wet.** Sufficiently mix or penetrate a material with amended water to prevent the release of visible emissions. If visible emissions are observed coming from asbestos-containing material, then the material has not been adequately wetted.

(f) **Aggressive Air Sampling.** An accepted method of sampling in which mechanical equipment is used during the sampling period to stir up settled dust/asbestos fibers.

(g) **Agricultural Building/Structure.** A building/structure which is or was used exclusively for agricultural or horticultural activity. This definition does not include converted structures or buildings currently used for residential purposes or the processing or retail merchandising of agricultural or horticultural commodities.

(h) **Airlock.** A system for permitting entrance and exit, while restricting air movement, between a contaminated area and an uncontaminated area.

(i) **Air Sampling.** The process of measuring the fiber content of a known volume of

air collected during a specific period of time, using accepted methodologies.

(j) **Ambient Air Sampling.** A method of sampling by which an air sample is collected outside the regulated abatement work area, and is collected without the use of aggressive air sampling techniques.

(k) **Amended Water.** Water to which a surfactant has been added.

(l) **Approved Asbestos Safety Training Program.** A program, approved by the New York State Commissioner of Health, providing training in the various disciplines that may be involved in an asbestos project.

(m) **Asbestos.** Any naturally occurring hydrated mineral silicate separable into commercially usable fibers, including chrysotile (serpentine), amosite (cumingtonite-grunerite), crocidolite (riebeckite), tremolite, anthophyllite and actinolite.

(n) **Asbestos Abatement Contractor.** An asbestos contractor who performs abatement during an asbestos project or employs persons performing such abatement.

(o) **Asbestos Abatement Contractor Daily Project Log.** A bound daily narrative journal maintained by the asbestos abatement contractor, which contains a synopsis of all pertinent events that occur throughout Phase II of the asbestos project.

(p) **Asbestos Containing Material (ACM).** Any material containing greater than one percent (1%) by weight of asbestos, also known as **Asbestos Material**.

(q) **Asbestos Contractor.** The State, any political subdivision of the State, 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 any portion of an asbestos project, or employs persons engaged in any portion of an asbestos project.

(1) **Exception:** Property owners who hire asbestos contractors, but do not, themselves, direct or control the work.

(r) **Asbestos Control Bureau.** Asbestos Control Bureau, Division of Safety and Health, New York State Department of Labor.

(s) **Asbestos Handler(Worker).** Any person who performs the duties described in Section 56.3.2(d)(1) of this Part.

(t) **Asbestos Handling Certificate.** A certificate issued by the Commissioner in any of the categories set forth in Section 56-3.2(d) of this Part.

(u) **Asbestos Handling License.** A license issued by the Commissioner pursuant to Section 56-3.1 of this Part.

(v) **Asbestos Material.** Any material containing greater than one percent (1%) by weight of asbestos, also known as **Asbestos Containing Material (ACM)**.

(w) **Asbestos Project.** Work that involves the removal, encapsulation, enclosure, repair or disturbance of friable or non-friable asbestos, or any handling of asbestos material that may result in the release of asbestos fibers. For the purpose of compliance with this Part, an asbestos project shall include any intentional disturbance of asbestos fibers, and the planning, asbestos survey, design, background air sampling, inspection, air sampling and oversight of abatement work, cleanup, and the handling of all asbestos material subject to abatement, as well as the supervising of such activities. Installation of friable ACM shall also be considered an asbestos project. An asbestos project starts with Phase I when the planning, asbestos survey, and design work begins or is required to begin. The project shall not be considered completed until Phase II D is complete. (See Table 1 Below).

Table 1

ASBESTOS PROJECT PHASES OF WORK

Phase I (Prior to Asbestos Abatement Contractor Mobilization) ⇦ Pre-Abatement		**Phase II** Start----------⇨ement----------End			
A	**B**	**A**	**B**	**C**	**D**
Asbestos Survey, Planning & Design	Background Air Sampling	Regulated Abatement Work Area(s) Preparation & Enclosure Construction	Asbestos Handling including,Gross Removal or Abatement, Initial Cleans and Waste Removal	Final Cleaning & Clearance Air Samples	Final Waste Removal From Site
⇦ Start----------Asbestos Project----------End ⇨					

(1) Where any work is subcontracted, only that part of the work involving asbestos shall be deemed to be an asbestos project.

(2) Asbestos projects include Large asbestos projects, Small asbestos projects, Minor asbestos projects, incidental disturbance asbestos projects

and emergency projects as defined elsewhere in this Part. For purposes of licensing, certification, notification, air sampling and asbestos survey requirements, asbestos projects shall include in-plant operations.

(i) Large asbestos project. An asbestos project involving the removal, disturbance, enclosure, encapsulation, repair or handling of 160 square feet or more of ACM, PACM or asbestos material or 260 linear feet or more of ACM, PACM or asbestos material.

(ii) Small asbestos project. An asbestos project involving the removal, encapsulation, enclosure, repair or disturbance of friable asbestos, or any handling of more then 10 and less than 160 square feet of ACM, PACM or asbestos material or more than 25 and less then 260 linear feet of ACM, PACM or asbestos material.

(iii) Minor asbestos project. An asbestos project involving the removal, disturbance, repair, encapsulation, enclosure or handling of 10 square feet or less of ACM, PACM or asbestos material, or 25 linear feet or less of ACM, PACM or asbestos material. Only an isolated event necessary for repair associated with normal operation and maintenance activities shall be considered such a project.

(x) **Asbestos Project Air Sampling Technician.** An individual who performs the duties described in Section 56-3.2(d)(3) of this Part.

(y) **Asbestos Survey.** A thorough inspection for and identification of all PACM, suspect ACM, or asbestos material throughout the building/structure or portion thereof to be demolished, renovated, remodeled, or repaired. (See Subpart 56-5)

(z) **Asbestos Waste.** ACM, PACM, asbestos material or asbestos contaminated objects requiring disposal pursuant to applicable laws or regulations. This includes RACM as well as Category I and II Non-Friable ACM.

(aa) **Authorized Visitor.** Any party on an asbestos project, who has to enter the asbestos project restricted area or regulated abatement work area for emergency purposes or regulatory compliance inspections. Examples include the building/structure owner, his or her agent or representative, utility company representatives, the Commissioner or his or her agents, and personnel of any regulatory agency having jurisdiction over the project. Visitors shall comply with all applicable requirements of OSHA 29 CFR 1926.

(ab) **Background Air Sampling.** A method used to determine airborne fiber concentrations in the area where abatement work is to be conducted, prior to starting Phase II A of the asbestos project.

(ac) **Barriers.** Critical Barriers and Isolation Barriers.

CITY_21MC100_003246502

NYC-WTC_000438577

(ad) **Building/Structure.** A structure wholly or partially enclosed within exterior walls and a roof, intended to afford shelter to persons, animals or property; or a structure used as a conveyance for utilities, vehicular traffic or pedestrians (e.g. bridge, tunnel, manhole, subsurface conduits).

(ae) **Building/Structure Owner.** The State, any political subdivision of the State, a public authority or any other governmental agency or instrumentality thereof, person, company, unincorporated association, firm, partnership or corporation in whom legal title to the premises is vested unless the premises are held in land trust, in which instance building/structure owner means the person in whom beneficial title is vested.

(af) **Bulk Sampling.** Accepted methods for collecting samples of suspect materials for appropriate analyses by NYS ELAP approved laboratories, to determine asbestos content.

(ag) **Category I Non-Friable ACM.** NESHAP classification - Asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products, containing more than one percent (1%) asbestos by weight, that when dry, can not be crumbled, pulverized, or reduced to powder by hand pressure.

(ah) **Category II Non-Friable ACM.** NESHAP classification - Any material, excluding Category I Non-Friable ACM, containing more than one percent (1%) asbestos by weight, that when dry, can not be crumbled, pulverized, or reduced to powder by hand pressure.

(ai) **Class I Asbestos Work.** OSHA term meaning activities involving the abatement of Thermal Systems Insulation (TSI), and surfacing ACM and PACM.

(aj) **Class II Asbestos Work.** OSHA term meaning activities involving the abatement of ACM which is not TSI or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

(ak) **Class III Asbestos Work.** OSHA term meaning Repair and Maintenance operations, where a minor quantity of ACM, including TSI and surfacing ACM and PACM, is likely to be disturbed.

(al) **Class IV Asbestos Work.** OSHA term meaning Maintenance and Custodial Activities during which employees contact but do not disturb ACM or PACM and activities to clean up non-ACM dust, waste and debris resulting from Class I, II and III activities.

(am) **Clean Room.** An uncontaminated area or room, which is a part of the personal decontamination enclosure, with provisions for storage and changing of persons' street clothes and protective equipment.

(an) **Cleanup.** The utilization of HEPA-vacuuming or wet cleaning or both to control

and eliminate accumulations of asbestos material and asbestos waste material.

(ao) **Clearance Air Sampling.** An accepted method of air sampling used upon completion of final cleaning, during Phase IIC of an asbestos project. This method consists of using aggressive air sampling techniques to dislodge and stir up remaining asbestos fibers, then air samples are collected for appropriate analysis to determine representative airborne fiber concentrations.

(ap) **Commissioner.** The Commissioner of the New York State Department of Labor.

(aq) **Containment.** The negative-pressurized enclosure within the restricted area, which establishes the regulated abatement work area and surrounds the location where the asbestos abatement is actually taking place.

(ar) **Critical Barrier.** Barriers that seal off all openings within the defined regulated abatement work area, including but not limited to operable windows and skylights, doorways, ducts, grills, diffusers and any other penetrations to surfaces within the regulated abatement work area.

(as) **Curtained Doorway.** An assembly which consists of at least three (3) overlapping sheets of 6-mil fire retardant plastic over an existing or temporarily framed doorway, used to separate the chambers within the decontamination system enclosures and to inhibit airflow if the negative air ventilation system shuts down.

(at) **Decontamination System Enclosure.** A series of connected rooms, usually attached to the regulated abatement work area, for the decontamination of persons, materials and equipment.

(au) **Demolition.** The wrecking or removal of any load-supporting structural member of a building or structure.

(av) **Department.** The New York State Department of Labor.

(aw) **Disturbance.** Any activities that disrupt the matrix of ACM or PACM, or generate debris, visible emissions or airborne asbestos fibers from ACM or PACM. This includes moving of friable asbestos containing material from one place to another.

(ax) **Emergency.** An unexpected, unanticipated or unforeseen occurrence, including but not limited to, a steam, chemical, gas or water line rupture, a boiler failure, a building/structure collapse, or act of nature which may pose:

(1) an imminent danger to the health and safety of the public; or

(2) an asbestos-related risk to the health and safety of the public from release of asbestos fibers.

NYC 9/11 Public Portal Document

(ay) **Emergency Asbestos Project.** An asbestos project which is necessary to respond to an emergency.

(az) **Encapsulant (Sealant) or Encapsulating Agent.** A liquid material, which can be applied to asbestos material and which prevents the release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant). See **Sealant**.

(ba) **Encapsulation.** Abatement consisting of the coating or spraying of asbestos material with an encapsulant (sealant) or encapsulating agent.

(bb) **Enclosure.** Abatement consisting of the construction of airtight walls, ceilings and floors between the asbestos material and the building/structure environment, or around surfaces coated with asbestos material, or any other appropriate procedure as determined by the Department, which prevents the release of asbestos fibers.

(bc) **EPA.** The United States Environmental Protection Agency.

(bd) **Equipment Room.** A contained area or room which is part of the personal decontamination system enclosure with provisions for the storage of contaminated clothing and equipment.

(be) **Fiber (Asbestos Fiber).** Generally, a slender or elongated structure, which results from the break up of ACM, PACM or asbestos material. However, the definition of an asbestos fiber is also dependent upon the approved accepted method of air sampling and analysis utilized for the specific phase of the asbestos project.

(bf) **Fixed Object.** Equipment, furniture or other item that that is affixed, as a whole, to a floor, ceiling, wall or other building structure or system.

(bg) **Friable.** Any material that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure, or is capable of being released into the air by hand pressure.

(bh) **Glovebag.** A manufactured impervious bag-like enclosure constructed of at least six (6) mil transparent plastic, with inward-projecting long sleeve glove(s), which may also contain an inward-projecting water-wand sleeve, an internal tool pouch, and an attached, labeled receptacle or portion for asbestos waste. The glovebag is constructed and installed to surround the object or area to be decontaminated and contain all asbestos fibers released during the abatement process.

(bi) **Glovebag Technique.** A method for removing asbestos material from heating, ventilating, and air conditioning (HVAC) ducts, piping runs, valves, joints and elbows, and other non-planar surfaces, by use of a glovebag.

CITY_21MC100_003246505

NYC-WTC_000438580

(bj) **Glue.** A material used as an adhesive, such as the material used to hold tiles to a surface. See **Mastic**.

(bk) **HEPA-Filter.** A high efficiency particulate air filter capable of trapping and retaining 99.97 percent of all mono-dispersed particles of 0.3 microns in diameter or larger.

(bl) **HEPA-Vacuum Equipment.** Vacuuming equipment designed for abatement, with a high efficiency particulate air filtration system.

(bm) **Holding Area.** A chamber in the waste decontamination enclosure utilized for temporary storage of containerized ACM waste, prior to transfer to waste transport vehicle.

(bn) **Incidental Disturbance.** The unintentional disturbance of, ACM, PACM, or asbestos material.

(bo) **Incidental Disturbance Asbestos Project.** The cleanup, repair or encapsulation of less than 10 square feet or less than 25 linear feet of incidentally disturbed ACM, PACM or asbestos material.

(bp) **Inspector.** Any person who performs the duties described at Section 56-3.2(d)(4) of this Part.

(bq) **Intact.** Asbestos material that has not crumbled, been pulverized, or otherwise been damaged or disturbed, and the material's matrix has not noticeably deteriorated.

(br) **Intermediate Portions of a Project**. The individual abatement segments of an extended timeframe project that will take place within a year time frame.

(bs) **Isolation Barriers.** Installed temporary hardwall barriers that complete the containment enclosure and establishes the regulated abatement work area.

(bt) **Lockdown Encapsulant.** A thinned out bridging encapsulant used for lockdown purposes to assist with cleanup as per this Part.

(bu) **Management Planner.** Any person who performs the duties described at Section 56-3.2 (d) (9) of this Part.

(bv) **Mastic.** A pasty material used as an adhesive.

(bw) **Mounted Object**. Equipment, furniture, or other item that is attached, in whole or in part, to a floor, ceiling, wall or other building structure or system or to a fixed object.

(bx) **Movable Object.** Equipment, furniture or other item that is not attached or affixed, in whole or in part, to a floor, ceiling, wall or other building structure or

system or to a fixed object.

(by) **Multi-employer Work Sites.** Each Asbestos Contractor on a work site shall notify other employers on the work site regarding the nature and extent of his work.

(bz) **Multiple Abatement.** The abatement of more than one type of ACM within the same containment.

(ca) **Negative Air Pressure Equipment.** A local exhaust system, capable of maintaining air pressure within a containment at a lower pressure than the air pressure outside of such containment, and which provides for HEPA filtration of all air exhausted from the containment.

(cb) **NESHAP.** National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).

(cc) **NIOSH.** The National Institute for Occupational Safety and Health.

(cd) **Non-Asbestos Material.** Any material documented to contain one percent (1%) or less of asbestos by weight.

(ce) **Non-Friable.** Any material that when dry, can not be crumbled, pulverized, or reduced to powder by hand pressure, and is not capable of being released into the air by hand pressure.

(cf) **Non-Friable Organically Bound (NOB) Asbestos Material.** Non-friable asbestos materials embedded in flexible-to-rigid asphalt or vinyl matrices, including but not limited to flooring materials, adhesives, mastics, asphalt shingles, roofing materials and caulks.

(cg) **Occupied Area.** Any frequented portion of the work site where abatement is not taking place.

(ch) **Operations and Maintenance Worker.** Any person who performs the duties described at Section 56-3.2 (d) (5) of this Part.

(ci) **OSHA.** The Occupational Safety and Health Administration.

(cj) **Outside Air.** The air immediately outside the building or structure in which an asbestos project is performed.

(ck) **Person.** Any natural person.

(cl) **Personal Air Sampling.** Air sampling located in a worker's breathing zone.

(cm) **Personal Decontamination System Enclosure.** An area designated for controlled passage of all persons to and from the regulated abatement work area.

(cn) **Personal Protective Equipment (PPE).** Disposable work suits or coveralls, head covering, eye protection, footwear, gloves and appropriate NIOSH-approved respirators with appropriate NIOSH-approved filters.

(co) **Plasticize.** To cover floors, walls, ceilings or other surfaces with 6-mil fire-retardant plastic sheeting.

(cp) **Presumed Asbestos Containing Material (PACM).** All Thermal System Insulations and Surfacing Materials found in buildings constructed no later than 1980. PACM is considered to be ACM unless proven otherwise by appropriate bulk sampling and laboratory analyses.

(cq) **Project Air Sampling.** Area air sampling conducted in accordance with Subpart 56-4 of this Part during the course of the asbestos project.

(cr) **Project Designer.** Any person who performs the duties described at Section 56-3.2(d)(7) of this Part.

(cs) **Project Monitor.** Any person who performs the duties described at Section 56-3.2(d)(8).

(ct) **Public.** Any natural person except:

(1) A person engaged in an asbestos project;

(2) An authorized visitor;

(3) Police, fire, or other public safety personnel.

(cu) **Receptor.** Any opening, which could admit asbestos fibers into a structure if not properly protected. Examples include but are not limited to operable windows, doors, vents, air intakes or exhausts of any mechanical device within a building or structure.

(cv) **Regulated Abatement Work Area.** The portion of the restricted area where abatement work actually occurs. For tent work areas, the interior of each tent is a regulated abatement work area. For OSHA Class I and Class II asbestos abatement, the interior of the restricted area containment enclosure is the regulated abatement work area. For exterior non-friable asbestos abatement conducted without the establishment of negative air ventilation systems or containment enclosures, the entire restricted area surrounding the abatement location is considered to be the regulated abatement work area.

(cw) **Regulated Asbestos-Containing Material (RACM).** Friable ACM or PACM, Category I Non-friable ACM that has become friable or has been or will be subjected to sanding, grinding, cutting or abrading, or Category II Non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in

the course of demolition or renovation operations.

(cx) **Remodel.** For purposes of this code, remodel shall mean the same as renovation.

(cy) **Remote Decontamination System Enclosure.** Decontamination systems that are not attached to the regulated abatement work area but are within the work site.

(cz) **Removal.** Abatement, consisting of operations where ACM, PACM or asbestos material is removed or stripped from structures or substrates. This includes demolition operations.

(da) **Renovation.** The altering of an existing building/structure, or a portion of building/structure components or systems, including the stripping, removal or abatement of ACM from a building or structure. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

(db) **Repair (Asbestos).** Abatement, consisting of corrective action for a Minor Asbestos Project using required work practices to control fiber release from damaged ACM, PACM or asbestos material.

(dc) **Repair.** The replacement, overhaul, rebuilding, reconstructing or reconditioning of any part of a building/structure component or system with like or similar material or parts, due to damage or excessive wear.

(dd) **Respiratory Protection.** NIOSH-approved respirators with appropriate NIOSH-approved filters.

(de) **Restricted Area.** A restricted area established and marked for the abatement portion of an asbestos project. This area shall include, but not be limited to asbestos project regulated abatement work areas and any contiguous decontamination facilities, adjoining staging areas where work materials, debris or waste from such work may accumulate, remote decontamination areas, and waste storage areas (dumpsters, trailers, etc.).

(df) **Restricted Asbestos Handler (Allied Trades).** Any person who performs the duties described at Section 56-3.2 (d) (2) of this Part.

(dg) **Satisfactory Clearance Air Sampling Results.** See Subpart 56-4.

(dh) **Sealant.** An encapsulating agent. A material which can be applied to asbestos containing material which prevents the release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).

(di) **Sequential Abatement.** The abatement of different types of asbestos containing

material within a common regulated abatement work area in a priority order. (See Section 56-8.6)

(dj) **Shower Room.** A room between the clean room and the equipment room in the personal decontamination enclosure with hot and cold running water controllable at the tap and arranged for complete showering during decontamination.

(dk) **Supervisor.** Any person who performs the duties described at Section 56-3.2 (d) (6) of this Part.

(dl) **Suspect Miscellaneous ACM.** Any suspect asbestos-containing material that is not PACM, such as floor tiles, ceiling tiles, mastics/adhesives, sealants, roofing materials, cementitous materials, etc. A listing of typical suspect miscellaneous ACM can be found in Subpart 56-5. All suspect miscellaneous ACM must be assumed to be ACM, unless proven otherwise by appropriate bulk sampling and laboratory analyses.

(dm) **Surfacing Material.** Material that is sprayed-on, troweled-on, or otherwise applied to surfaces (such as acoustical or finish plaster on ceilings and walls, and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes).

(dn) **Surfactant.** A chemical wetting agent added to water to reduce the surface tension of the water and improve its penetration for added mitigation of airborne fiber release.

(do) **Tent.** A fire retardant polyethylene enclosure that includes walls, ceiling and a floor as required to remove ACM, PACM or asbestos material.

(dp) **Thermal System Insulation**. Insulation material applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat gain or loss.

(dq) **Variance (Site-specific).** Relief in accordance with Section 30 of the Labor Law from specific sections of Industrial Code Rule 56 for a specific project.

(dr) **Variance (Applicable) (AV).** Blanket relief in accordance with Section 30 of the Labor Law from specific sections of Industrial Code Rule 56 for a particular type of project.

(ds) **Visible Emission.** Any emission of particulate material that can be seen without the aid of instruments.

(dt) **Washroom.** A room between the regulated abatement work area and the holding area in the waste decontamination system enclosure, where equipment and waste containers are wet cleaned or HEPA-vacuumed.

(du) **Waste Decontamination System Enclosure.** An area, consisting of a

washroom and a holding area separated from each other by airlocks, designated for the controlled transfer of materials and equipment from the regulated abatement work area.

(dv) **Waste Staging Area.** The area near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the regulated abatement work area.

(dw) **Wet Cleaning.** The process of eliminating asbestos contamination from surfaces, equipment or other objects by using cloths, mops, or other cleaning tools that have been saturated with amended water.

(dx) **Work Site.** Building, structure, parcel of land or premises where an asbestos project takes place.

NYC 9/11 Public Portal Document

SUBPART 56-3

ADMINISTRATIVE

56-3.1 Licensing Requirements and Procedures.

(a) **License Required.** No asbestos contractor shall engage in an asbestos project unless such asbestos contractor has a valid asbestos-handling license issued by the Commissioner.

(b) All firms, corporations, or other business entities performing work as asbestos abatement contractors, management planners, project designers, project monitors, allied trades people, inspectors or air sampling monitors shall obtain an asbestos handling license. In addition, individuals employed by such firms, corporations or other business entities shall obtain required and approved training and asbestos certificates appropriate to the tasks performed.

(c) **Proof of License.** A copy of a valid asbestos handling license or other proof of the issuance of a valid asbestos handling license deemed suitable by the Commissioner shall be submitted by the bidder to the party soliciting bids prior to the award of any contract (public or private), all or part of which involves an asbestos project.

(1) **Exception.** If the asbestos contractor is a sub-contractor to a prime contractor, the proof of license must be submitted by the prime contractor to the party that awarded the contract, prior to retaining such sub-contractor.

(d) **Display of License.** A copy of a valid asbestos handling license for all firms, corporations, or other business entities performing work on the asbestos project shall be conspicuously displayed proximate to but outside the regulated abatement work area, during Phase IB and Phase IIA through IID of an asbestos project.

(e) **Application for License and Renewal.**

(1) Completed applications for a license or renewal of license shall be sent to the address specified in the application package, accompanied by a nonrefundable application fee in the amount set forth in Section 903 of the Labor Law. The fee shall be paid in any form, except cash, deemed acceptable by the Commissioner of Labor in the application package. All payments shall be made payable to the Commissioner of Labor. Any payments which are voided or returned to the Commissioner for any reason shall be subject to a return processing fee in the amount allowed by law and any entity submitting such payments to the Department may be subject to all other appropriate penalties set forth in statute and code,

CITY_21MC100_003246512

NYC-WTC_000438587

including but not limited to the immediate suspension or revocation of any license granted on the basis of such payment.

(2) All applications for asbestos handling licenses shall be submitted in writing on forms furnished by the Commissioner. Copies of such forms may be obtained from the New York State Department of Labor, Asbestos Licensing and Certification Unit.

(3) Completion of such forms requires inclusion of any information required by the Commissioner.

(4) Each license application shall contain a verified statement by the asbestos contractor applying for the license or its duly authorized representative, that any person employed by the asbestos contractor on any asbestos project shall have a valid asbestos handling certificate as required by this Part, that the asbestos contractor shall provide such person with a copy of this Part and notify him or her of the obligation to abide by its provisions, and that the asbestos contractor shall abide by all the rules and regulations promulgated by the Commissioners of Labor and Health pursuant to Article 30 of the Labor Law. Each license application shall include the name of the certified supervisor designated as the contractor's agent, as required by section 902(1) of the Labor Law. The certified supervisor requirement shall only apply to asbestos contractor applicants that perform asbestos abatement operations. For non-abatement asbestos contractors, a notarized statement must be included with the license application that indicates their firm's activities shall not include actual asbestos abatement operations during the period for which the license is valid. Any changes or follow-up to the information contained in the asbestos contractor's license application, (including but not limited to changes in address, principals, ownership, designated supervisor(s), and insurance coverage,) shall be reported in writing to the Asbestos Licensing and Certification Unit, New York State Department of Labor, within thirty (30) calendar days of the effective date of any change.

(5) The Commissioner shall notify the license applicant in writing, no later than thirty (30) days from receipt of the license application, of the issuance or denial of the license or the need for further information from the applicant in order to process the license application. Notification of denial of a license on any grounds other than failure to complete the license application shall set forth the grounds for such denial.

(6) An applicant denied a license on any grounds other than failure to complete a license application may request a hearing before the Commissioner or his or her designee by submitting a written request for such hearing within ten (10) days of receipt of denial.

(7) An asbestos handling license shall be valid for a period of one year from

date of issuance.

(8) Approximately two (2) months prior to the expiration of an asbestos handling license, the Commissioner shall contact the license holder and inform him or her of the need to renew the asbestos handling license. The Commissioner shall also furnish a renewal application to the licensee. The renewal application may request the license holder to inform the Commissioner of any changes in information previously provided to the Division of Safety and Health, Licensing and Certification Unit, and any other information deemed by the Commissioner to be relevant.

(9) The Commissioner shall notify license renewal applicants in writing of the issuance or denial of the license renewal or the need for further information from the applicant in order to process the renewal application. Notification of denial of a license renewal on any grounds other than failure to complete the renewal application shall set forth the grounds for such denial.

(10) An applicant denied renewal of a license on any grounds other than failure to complete a license renewal application may request a hearing before the Commissioner or his or her designee by submitting a written request for such hearing within ten (10) days of receipt of denial.

56-3.2 Certification Requirements and Procedures.

(a) **Certification and Training Required.** No asbestos contractor shall engage in or permit a person employed by the asbestos contractor to engage in or supervise work on an asbestos project unless each such person has a valid asbestos handling certificate issued by the Commissioner appropriate to the work performed by such person on an asbestos project as defined in this Part. Training for all types asbestos handling certificates shall meet all requirements established by the New York State Department of Health.

(b) **Employee Certification.** Any person employed by a asbestos contractor on an asbestos project shall have an appropriate asbestos handling certificate or a copy thereof in his or her possession at all times during his or her work on the project. No asbestos contractor shall compel the holder of any asbestos handling certificate to surrender the original certificate. The only exception to the requirement of certification is if the employee has proof that he or she has had the appropriate initial training within the past forty-five (45) days, and is awaiting the asbestos handling certificate. A student copy of the Asbestos Safety Training Certificate (DOH 2832) indicating successful completion of an approved asbestos safety training program is the only acceptable proof of appropriate training. The employee must also have a photo identification card issued by an authorized government entity.

(c) **Display of Certificate.** A copy of a valid asbestos handling certificate, or a

CITY_21MC100_003246514

NYC-WTC_000438589

current student copy of the New York State Department of Health Certificate of Asbestos Safety Training Form (DOH 2832) indicating successful completion of an approved initial asbestos safety training program within the past forty-five (45) days along with a copy of a photo identification, shall be conspicuously displayed near but outside the regulated abatement work area on an asbestos project.

(d) **Types of Certificates:** The following categories of asbestos handling certification shall be issued pursuant to this Subpart:

(1) **A. Asbestos Handler(Worker) Certificate.** Any person who removes, encapsulates, encloses, repairs or disturbs friable or non-friable asbestos, or who handles asbestos material in any manner which may result in the release of asbestos fiber, and whose duties are not otherwise described in paragraphs (2) through (9) of this Subdivision shall possess a valid asbestos handler(worker) certificate and shall have such certificate or a copy thereof in his or her possession at all times while working on the project, except as otherwise indicated in Subdivision (b) and (c) of this Section. A person who possesses a asbestos handler(worker) certificate shall be responsible for the proper execution of his or her trade as it relates to an asbestos project.

(2) **B. Restricted Asbestos Handler Certificate (Allied Trades Certificate).** Any person performing any limited or special tasks in preparation for or ancillary to an asbestos project, such as a carpenter, electrician, plumber or similar occupation, or any other person who may potentially disturb friable or non-friable asbestos during the course of any employment (other than OSHA Class IV asbestos work), shall possess a valid restricted asbestos handler (allied trades) certificate and shall have such certificate or a copy thereof in his or her possession at all times while working on the project, except as otherwise indicated in Subdivision (b) and (c) of this Section. This person shall be aware of the health hazards of asbestos and take appropriate precautions to avoid any ACM, PACM or asbestos material disturbance throughout the course of their work. Abatement of any quantity of ACM, PACM or asbestos material is not allowed by this person under any circumstance. A person who possesses a restricted asbestos handler certificate shall be responsible for the proper execution of his or her trade as it relates to an asbestos project.

(3) **C. Asbestos Project Air Sampling Technician Certificate.** Any person who performs project air sampling shall possess a valid asbestos project air sampling technician certificate and shall have such certificate or a copy thereof in his or her possession at all times while working on the project, except as otherwise indicated in Subdivision (b) and (c) of this Section. A person who possesses an air sampling technician certificate shall be responsible for the proper execution of his or her duties as they relate to an asbestos project.

CITY_21MC100_003246515

NYC-WTC_000438590

NYC 9/11 Public Portal Document

(4) **D. Inspector Certificate.** Any person who performs the limited tasks involved in the asbestos survey, identification and assessment of the condition of asbestos and asbestos material and the recording and reporting thereof, or who is involved in the collection of bulk samples of asbestos material or suspected asbestos material for laboratory analysis shall possess a valid inspector certificate and shall have such certificate or a copy thereof in his or her possession at all times while working on the project, except as otherwise indicated in Subdivision (b) and (c) of this Section. A person who possesses an inspector certificate shall be responsible for the proper execution of his duties as they relate to an asbestos project.

(5) **E. Operation and Maintenance Certificate**. Any person who performs operations, maintenance and repair activities which may disturb Minor quantities of ACM, PACM or asbestos material shall possess a valid operation and maintenance certificate and shall have such certificate or a copy thereof in his or her possession at all times while working on the project, except as otherwise indicated in Subdivision (b) and (c) of this Section. Operation and maintenance certification permits the holder to perform OSHA Class III asbestos work only on Minor asbestos projects. These minor asbestos projects must be associated with repairs required in the performance of emergency or routine maintenance activity, and is not intended solely as asbestos abatement. Such work may not exceed minor quantities of ACM to be disturbed within a single glovebag or a single negative pressure tent enclosure. A person who possesses an operation and maintenance certificate shall be responsible for the proper execution of his duties as they relate to an asbestos project.

(6) **F. Supervisor Certificate.** Any person who performs supervision of persons (other than authorized visitors) permitted to enter the restricted area and regulated abatement work area, shall possess a valid supervisor certificate and shall have such certificate or a copy thereof in his or her possession at all times while working on the project, except as otherwise indicated in Subdivision (b) and (c) of this Section. A person who possesses a supervisor certificate shall be responsible for the proper execution of his duties as they relate to an asbestos project. The supervisor is also responsible for performing the duties of the OSHA competent person for the asbestos project, consistent with current OSHA regulations.

(7) **G. Project Designer Certificate.** Any person who plans the scope, timing, phasing and remediation methods to be utilized on any asbestos project shall possess a valid project designer certificate and shall have such certificate or a copy thereof in his or her possession at all times while working on the project, except as otherwise indicated in Subdivision (b) and (c) of this Section. A person who possesses a project designer certificate shall be responsible for the proper execution of his duties as

CITY_21MC100_003246516

NYC-WTC_000438591

they relate to an asbestos project.

(8) **H. Project Monitor Certificate.** Any person who oversees the scope, timing, phasing and/or remediation methods to be utilized on and the completeness of any asbestos project shall possess a valid project monitor certificate or a copy thereof in his or her possession at all times while working on the project, except as otherwise indicated in Subdivision (b) and (c) of this Section. A person who possesses a project monitor technician certificate shall be responsible for the proper execution of his duties as they relate to an asbestos project.

(9) **I. Management Planner Certificate.** Any person who assesses the hazard posed by the presence of asbestos or asbestos containing material and/or who recommends appropriate response actions and a schedule for such response actions shall possess a valid management planner certificate and shall have such certificate or a copy thereof in his or her possession at all times while working on the project, except as otherwise indicated in Subdivision (b) and (c) of this Section. A person who possesses a management planner certificate shall be responsible for the proper execution of his duties as they relate to an asbestos project.

(e) **Proof of Course Completion.** No certificate described in Section 56-3.2(d) of this Part shall be issued without submission, by the applicant, of proof satisfactory to the Commissioner of successful completion of an approved asbestos safety program. As an alternative to completing the approved asbestos safety program for the specific title for which certification is sought, the following equivalent courses may be substituted by applicants seeking the titles specified hereunder:

To satisfy training requirements in this discipline(s)	One can substitute successful completion of trAlning in this discipline(s)
Asbestos Project Air Sampling Technician	Project Monitor
Restricted Handler (Allied Trades), Operation and Maintenance	Supervisor or Asbestos Handler(Worker)
Asbestos Project Air Sampling Technician Refresher	Project Monitor Refresher
Restricted Handler (Allied Trades) Refresher, Operation and Maintenance Refresher	Asbestos Handler(Worker) Refresher or Supervisor Refresher

CITY_21MC100_003246517

NYC-WTC_000438592

NYC 9/11 Public Portal Document

(f) **Age Requirement.** Any type of asbestos handling certificate shall not be issued to any person prior to his or her eighteenth birthday.

(g) **Application for Certification and Renewal.** All applications for any type of asbestos handling certificates and renewals shall be submitted as follows:

(1) Completed applications for any type of asbestos handling certificate or renewal shall be sent to the address specified in the application package, accompanied by a nonrefundable application or renewal application fee in the amount set forth in Section 903 of the Labor Law. The fee shall be paid in any form, except cash, deemed acceptable by the Commissioner of Labor in the application package. All payments shall be made payable to the Commissioner of Labor. Any payments which are voided or returned to the Commissioner for any reason shall be subject to a return processing fee of the amount allowed by law and any entity submitting such checks to the Department may be subject to all other appropriate penalties set forth in statute and code, including but not limited to the immediate suspension or revocation of any certificate granted on the basis of such payment.

(2) All applications for any type of asbestos handling certificates shall be submitted in writing on forms furnished by the Commissioner. Copies of such forms may be obtained from the New York State Department of Labor, Division of Safety and Health, License and Certificate Unit.

(3) Completion of such forms requires inclusion of all information deemed appropriate by the Commissioner.

(4) Each application for any type of asbestos handling certificate shall contain a verified statement by the applicant that he or she shall abide by all rules and regulations promulgated by either the Commissioner of Labor or Health pursuant to Article 30 of the Labor Law.

(5) The Commissioner shall notify asbestos handling certificate applicants in writing no later than thirty (30) days from the receipt of the asbestos handling certificate application of the issuance or denial of the asbestos handling certificate or of the need for further information from the applicant in order to process the asbestos handling certificate application. Notification of denial of an asbestos handling certificate on any grounds other than failure to complete the asbestos handling certificate application shall set forth the grounds for such denial.

(6) An applicant denied any type of asbestos handling certificate on any grounds other than failure to complete an asbestos handling certificate application, may request a hearing before the Commissioner or his or her designee by submitting a written request for such hearing within ten (10) days of receipt of denial.

CITY_21MC100_003246518

NYC-WTC_000438593

(7) All types of asbestos handling certificates shall be valid for a period of up to one year from date of issuance. The expiration date shall be the last day of birth month of the individual applying.

(8) Approximately two (2) months prior to the expiration of any type of asbestos handling certificate, the Commissioner shall contact the asbestos handling certificate holder and inform him or her of the need to renew the asbestos handling certificate. The Commissioner shall also furnish a renewal application to the asbestos handling certificate holder. The renewal application may request the asbestos handling certificate holder to inform the Commissioner of any changes in information previously provided to the Division of Safety and Health's License and Certification Unit and any other information deemed by the Commissioner to be relevant.

(9) The Commissioner shall notify an asbestos handling certificate renewal applicant in writing of the issuance or denial of the asbestos handling certificate renewal or of the need for further information from the applicant in order to process the renewal application. Notification of denial of an asbestos handling certificate renewal on any grounds other than failure to complete the renewal application shall set forth the grounds for such denial.

(10) An applicant denied renewal of any type of asbestos handling certificate on any grounds other than failure to complete an asbestos handling certificate renewal application, may request a hearing before the Commissioner or his or her designee by submitting a written request for such hearing within ten (10) days of receipt of denial.

56-3.3 Replacement of Licenses and Certificates.

(a) In the event that any type of asbestos handling certificate or an asbestos handling license is lost or stolen, the certificate or license holder to whom the certificate or license had been issued may apply to the Commissioner for the issuance of a replacement asbestos handling license or appropriate type of asbestos handling certificate. Such application shall be made in writing and shall include a notarized statement from the individual indicating that the original asbestos handling license or asbestos handling certificate has been lost and verifying that the individual applying for such replacement asbestos handling license or asbestos handling certificate understands that the submittal of false statements in connection with the request for a replacement shall subject him or her to penalties and other remedies under the law.

(b) All applications for replacement asbestos handling licenses or any type of asbestos handling certificate shall be addressed to the License and Certification Unit, New York State Department of Labor accompanied by a nonrefundable fee. The fee shall be equal to that assessed for an initial asbestos handling certificate

or asbestos handling license. The fee shall be paid in any form, except cash, deemed acceptable by the Commissioner of Labor in the application package. All payments shall be made payable to the Commissioner of Labor. Any payments which are voided or returned to the Commissioner for any reason shall be subject to a return processing fee of the amount allowed by law and any entity submitting such checks to the Department may be subject to all appropriate penalties set forth in statute and code, including but not limited to the immediate suspension or revocation of any replacement asbestos handling license or asbestos handling certificate granted on the basis of such payment.

56-3.4 Notice and Record-keeping Requirements.

(a) **Record-keeping**

(1) **Detail.** Every asbestos contractor shall maintain for at least thirty (30) years, a record of each asbestos project in which the asbestos contractor engages. Such record shall include the following information:

Exception. Non-abatement asbestos contractors shall maintain for at least thirty (30) years, a record of the following applicable project information for each asbestos project, if it relates to their portion of the asbestos project:

(i) The name, address, social security number and asbestos certificate number of the person who supervised the asbestos project;

(ii) The location and description of the asbestos project;

(iii) The amount of asbestos or asbestos material that was removed, enclosed, encapsulated, repaired, disturbed or handled;

(iv) The commencement and completion date of the asbestos project;

(v) The name, asbestos handling license number, and address of the air sampling asbestos contractor that was used on the project;

(vi) The name, address and current NYS ELAP registration number, of the laboratory that was used for air sample analysis on the project;

(vii) The name. asbestos handling license number, and address of the project monitoring asbestos contractor that was used on the project;

(viii) The name and address of the deposit or waste disposal site or sites where the asbestos waste material was deposited or disposed;

(ix) The name and address of any sites that were used for the interim storage of asbestos or asbestos waste materials prior to final deposit or disposal;

(x) The name and address of any transporters that were used to transport asbestos or asbestos material;

(xi) The name, address, social security number and asbestos license or certificate number of all persons who were engaged on that portion of the asbestos project for which the asbestos contractor has responsibility;

(xii) A copy of the asbestos abatement supervisor's daily project log;

(xiii) Any other information that the Commissioner may require, on a form and according to instructions provided by the Commissioner.

(2) **Project Record.**

(i) At all sites where there is an active project, a project record shall be required. The project record shall be available on-site with the building/structure owner or his designated representative, and shall include the following:

(a) Copies of licenses of all entities involved with the project;

(b) Copies of all supervisors and handler certificates;

(c) Copies of notifications and amendments;

(d) Copies of all variances, amendments and re-openings being used for the project;

(e) A copy of the air sample log if the air sampling technician is on site. If the air sampling technician is not on site, a copy of the air sample log shall be supplied within 24 hours of the request to produce a copy there of;

(f) A copy of all air sampling results, including method of analysis, by date for the entire asbestos project, organized by regulated abatement work area;

(g) A copy of the project monitor's daily logs during abatement (if a project monitor is used on the project);

(h) The supervisor's daily log with entry/exit logs organized by date;

(i) All bulk sample data including all asbestos inspections and surveys completed for affected portions of the building, structure and work site;

(ii) This record shall be kept on site at all times with the

building/structure owner or his designated representative, and produced upon verbal request of the Commissioner or his or her duly authorized representative.

(3) **Surrender of Records**. Within ten (10) working days of the expiration, revocation, or non-renewal of an asbestos contractor's asbestos handling license, or upon the receipt of the written request of the Commissioner, or his or her duly authorized representative, any records kept pursuant to this Part shall be delivered to the Asbestos Control Bureau.

(4) Copies of any records kept pursuant to this Part shall be surrendered to the Commissioner or his or her duly authorized representative upon written request.

(b) **Notification.**

(1) **When Required.** Any asbestos abatement contractor who proposes to engage in a Large asbestos project shall notify or cause to be notified, in writing, the Asbestos Control Bureau. Such notice must be received at least ten (10) calendar days prior to commencement of Phase II A (See Section 56-2.1) of the asbestos project unless waived in writing by the Commissioner or his or her duly authorized representative. If an asbestos hazard is present which requires immediate attention, or if emergency conditions make it impossible to give notification ten (10) calendar days prior to commencement of the project, notification in accordance with Section 56-3.5 of this Part shall be given. All project notifications shall be accompanied by a nonrefundable fee. The fee shall be paid in any form, except cash, deemed acceptable by the Commissioner of Labor in the notification package. All payments shall be made payable to the Commissioner of Labor in the amounts set forth in the Labor Law. Any payments which are voided or returned to the Commissioner for any reason shall be subject to a return processing fee in an amount allowed by law and any entity submitting such checks to the Department may be subject to all other appropriate penalties set forth in statute and code, including but not limited to enjoining of the asbestos project.

(2) **Content.** The notification to the Asbestos Control Bureau shall be made on a form or forms provided by the Commissioner and shall include, but not be limited to, the following:

(i) The name, address and asbestos license number of the asbestos abatement contractor and all sub-contractors retained for the asbestos project;

(ii) The name and address of the party for whom the asbestos project is being performed, as well as the contract amount;

(iii) The address and description of the building/structure or area,

including size, age, use and prior use of the building/structure or area;

(iv) The name and phone number of the building/structure or area owner representative or site contact individual.

(v) The amount of ACM, PACM or asbestos material present in square feet and/or linear feet, and/or cubic feet, if applicable. Piping, fittings and associated insulation (excluding breeching) are to be measured in linear feet;

(vi) Room designation numbers or other local information where ACM, PACM or asbestos material is found, unless such material is found throughout the entire building or structure;

(vii) The commencement and completion dates for the asbestos project, Phase II A through D, and the commencement and completion dates of any intermediate portions of the project. Night, weekend and shift work schedules shall be included;

(viii) The procedures and equipment, including ventilating/exhaust systems, that shall be employed;

(ix) A listing of all variances (applicable and site-specific) to be utilized on the asbestos project;

(x) The name and asbestos license number of the air sampling firm asbestos contractor for the asbestos project;

(xi) The name and NYS ELAP registration number of the laboratory which shall perform analysis of project air samples for the project;

(xii) The name, address, phone number and NYS DEC permit number of the waste transporter;

(xiii) The name, address and phone number of the landfill where the asbestos waste will be transported;

(xiv) Any other information which the Commissioner may require.

(3) A separate notification must be submitted for each period of up to twelve (12) months during which work shall be performed. Amendments of existing notifications are permitted. No additional fee is required unless the size of the project increases from that originally submitted on the initial notification, then a fee would be required for the additional material only.

(4) Postponement, Cancellation or Changes to Completion Dates of Projects.

(i) Whenever the commencement date of a project for which notification has already been submitted is postponed, or if a project for which a notification has been submitted is cancelled, or if a project completion date is changed, the asbestos abatement contractor shall notify the Asbestos Control Bureau of the postponement or cancellation or change of completion date by telephone or written notice. This notice shall be received at least one (1) calendar day prior to the initial start or completion date set forth on the previously submitted notification. In addition, written notification for new start dates on projects postponed for one week or longer must be received at least three (3) calendar days prior to the new start date.

(ii) Notice of postponement or cancellation given by telephone shall be followed by written confirmation of the postponement or cancellation, which shall be provided to the Asbestos Control Bureau within three (3) business days of the telephone notice.

(iii) Where time periods set forth herein allow, the notice requirements of subparagraphs (ii) and (iii) of this paragraph may be satisfied by the submittal of a single amended notification form.

(iv) Within a non-continuous notification for a Large asbestos project, intermediate portions of a project shall require notice to the Asbestos Control Bureau by telephone at least ten (10) calendar days prior to commencement of the intermediate portion of the project, followed by written notification with the commencement and completion dates of any intermediate portions of the project. The written notification shall be provided to the Asbestos Control Bureau within three (3) business days of the telephone notice.

(5) **Cumulative Project Notification.** If a single asbestos project involves several locations in a building/structure or area, each of which does not involve the amounts of ACM, PACM or asbestos material specified in Section 56-3.4(b) of this Part, but which in total equal or exceed this amount, written notification shall be required.

(i) Each building or structure shall be considered a separate project for the purpose of meeting all notification requirements set forth in the statute and this Part. A separate project notification form and fee must be submitted for each building/structure. Where one contract is entered into for several component projects, notification shall be required. Similarly, separate bids for component projects shall not void the notification requirement.

(6) **Additional Contractual Work.** Additional contractual work (See Section 56-2.1) is subject to a new or amended notification and associated fees.

CITY_21MC100_003246524

NYC-WTC_000438599

No additional waiting period to commence this work shall be required.

56-3.5 Emergency Asbestos Project Notification.

(a) **Initial Notification.** Prior to the commencement of an asbestos project that is necessary to respond to an emergency, or to cleanup an incidental disturbance, the asbestos abatement contractor shall contact the Asbestos Control Bureau via telephone or in person to request permission to proceed with the asbestos project. The individual giving such notification may be asked to provide some or all of the information required of an individual giving full written notification of an asbestos project.

(b) **Emergency Approval.** The Program Manager, Asbestos Control Bureau, or other duly authorized representative of the Commissioner, upon ascertaining all pertinent facts relating to the request, shall be empowered to either approve or deny the request for permission to proceed with an emergency or incidental disturbance asbestos project without the filing of prior notification. Unless permission to proceed with the asbestos project, using approved variance conditions, is granted pursuant to Section 56-11.2 (Emergency Projects), all work shall be performed in accordance with all applicable provisions of this Part.

(c) **Follow-Up Notification.** If permission to proceed with an emergency asbestos project is granted, the asbestos abatement contractor to whom such permission is granted, shall, within three (3) business days, file the written notification required by Section 56-3.4(b) of this Part with the Asbestos Control Bureau.

56-3.6 Notification of Residential and Business Occupants.

(a) **Ten (10) Day Notice.**

(1) The property owner and asbestos abatement contractor are responsible for ensuring that notice is provided to residential and business occupants. This notice may be provided by the property owner or by the asbestos abatement contractor or subcontractor engaged in the Phase II abatement portion of a project. The property owner, asbestos abatement contractor or subcontractor shall post or otherwise provide for a written notice to residential and business occupants of the building/structure, including visitors to the building/structure, ten (10) calendar days prior to the commencement of Phase II A work on any asbestos project within the building/structure. For projects being conducted in school buildings, the faculty, staff and students attending such school and visitors to the school shall be considered to be business occupants and shall receive notice as required in this Part.

(2) **Notice - Detail.** The written notice shall be given to those business and residential occupants of a building/structure, or portion thereof, who are located on the floor or floors where the actual project is to be conducted,

and one floor above and one floor below the floor or floors containing the project. In addition, such written notice shall also be given to those occupants of adjacent building/structures who have direct horizontal access to these floors. Posted notice shall be provided at all direct means of access to the floor, such as but not limited to stairways, ramps, emergency ingress or egress, elevators, escalators, ladders, hallways, corridors and trapdoors.

(b) **Three (3) Day Notice(Small and Minor Size Asbestos Projects Only).** If the Phase II A abatement work is scheduled to begin less than ten (10) calendar days after the execution of the contract, the property owner and asbestos abatement contractor shall post or otherwise provide written notice of any asbestos project to residential and business occupants in the building/structure where work shall be performed at least three (3) calendar days prior to commencement of work.

(c) **Other Notice.** If an emergency makes it impossible to provide the notice required by Subdivision (a) or (b) of this Section, the property owner and asbestos abatement contractor shall post or otherwise provide for written notice to residential and business occupants of the building/structure, as soon as practicable after identification of the project, in the manner set forth in Section 56-3.5.

(d) **Duration of Posting.** Posted notices shall remain in place until completion of the project.

(e) **Content.** Each notice shall include the following information:

(1) The building/structure address and room location(s) or area designation of the asbestos project;

(2) The amounts and types of ACM, PACM or asbestos material, in square feet and/or linear feet, that is being handled, removed, enclosed, encapsulated, repaired or disturbed. Piping, fittings and associated insulation (excluding breeching) are to be measured in linear feet;

(3) The commencement and completion dates of the asbestos project, including any intermediate portions of the project;

(4) The name and asbestos handling license number of the asbestos abatement contractor performing the project; and

(5) The name and address of the air monitor asbestos contractor and laboratory for the project.

(f) **Noninterference.** No person shall interfere with the obligations of the property owner and asbestos abatement contractor under this Section.

CITY_21MC100_003246526

NYC-WTC_000438601

SUBPART 56-4

GENERAL PROJECT AIR SAMPLING AND LABORATORY ANALYSIS REQUIREMENTS

56-4.1 Qualifications of Air Sampling Personnel. The project air sampling shall be conducted by an asbestos project air sampling technician who has been trained in the selected methodology of air sampling and who possesses an asbestos project air sampling technician certificate issued by the Department.

56-4.2 Laboratory Certification. The laboratory used for air sample or bulk sample analysis shall be one approved by the New York State Department of Health Environmental Laboratory Approval Program (NYSDOH ELAP) for the selected asbestos analysis methodology.

56-4.3 Independent Third Party Sampling and Analysis. A third party air sampling firm asbestos contractor, who must be contracted by the property owner or owner's agent, and is completely independent of all asbestos abatement contractors involved with the asbestos project, shall conduct all project air sampling and analysis as required by this Part.

(a) **Exception.** If the property owner is the asbestos abatement contractor for the asbestos project, the owner shall contract with an independent air sampling firm asbestos contractor for the necessary project air sampling on the asbestos project.

56-4.4 Asbestos Contractors Allowed to Perform Project Air Sampling on an Asbestos Project. Air sampling procedures shall not be performed by any asbestos contractor involved with the asbestos project, except as follows:

(a) The non-abatement asbestos contractor firm that performed the building/structure asbestos survey, or is acting as the project monitor or project designer on the asbestos project, may perform project air sampling, provided that the individual or firm performing the building/structure asbestos survey or acting as project monitor or project designer, will not perform any asbestos abatement work on the project and has not retained or been retained by the asbestos abatement contractor for work on the asbestos project, unless the asbestos abatement contractor is also the property owner.

56-4.5 Air Sample Log. A project air sample log shall be created by the firm performing the project air sampling and it shall contain the following information for all area air samples collected on the asbestos project:

(a) Name of the firm and the certified air sampling technician performing the project air sampling, per set of area air samples.

(b) Dates of project air sample collection, per set of area air samples.

(c) Sample locations sketch, identifying all project air sample locations, per set of area air samples. If identical locations are utilized for each set of area samples collected throughout a sub-phase of the asbestos project (IIA, IIB or IIC), only one sketch is required for all sets of area samples collected for that specific sub-phase of the asbestos project.

(d) The identifying information for each area air sample collected.

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

(f) Flow rate primary or secondary calibration device identification number, method of flow rate primary or secondary device calibration and date of last calibration, per set of area air samples.

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

(h) Chain of custody for each set of area air samples.

56-4.6 Test Methods. The same methodology for project air sampling and for analysis of the air samples shall be used at all phases of an asbestos project that require area air sampling and analysis, with the possible exception of clearance air sampling. Phase Contrast Microscopy (PCM) shall be the minimum acceptable method of analysis. In lieu of PCM clearance air sampling and analysis, the building/structure owner may elect to utilize TEM air sampling and analysis to meet clearance air sampling requirements. If Transmission Electron Microscopy (TEM) is the selected method of analysis, the clearance criteria and sampling protocols of the Asbestos Hazard Emergency Response Act (AHERA) shall be used. If PCM air sample analysis results exceed the satisfactory clearance air criteria under this Part, then TEM analysis of the entire set of clearance air samples may be used, provided that a standard accepted laboratory analysis method is used that shall report each air sample result in fibers per cubic centimeter, for appropriate correlation to the original unsatisfactory PCM clearance air sample results and the established background level, , and provided that a report is submitted to the Commissioner for the entire set of clearance air sample PCM and TEM laboratory analyses._

56-4.7 Air Sampling Equipment.

(a) **Sampling Equipment.** Area air sampling shall be performed using GFCI protected pumps with associated tubing, supports and airflow measuring, metering or recording devices.

(b) **Duration, Flow Rate and Calibration.** Area air samples, except for background and clearance air samples, shall be collected and air samplers run for each entire work shift. Area air samples must be collected with a minimum flow rate capacity of two (2) liters per minute and a maximum flow rate consistent with the

applicable accepted air sampling and analysis methodology. The flow rate for each air sample shall be pre-calibrated and post-calibrated at the beginning and end of each air sample collection. The calibrations shall be recorded. Primary and secondary calibration devices shall be calibrated as per NYS DOH ELAP requirements. The air sampling technician shall be on-site to observe and maintain air sampling equipment for the duration of air sample collection.

(c) **Placement of Air Sampling Equipment.** Air sampling equipment shall be in place and operational as follows:

(1) Placement of Regulated Abatement Work Area Indoor Air Sampling Equipment. Air sampling equipment shall not be placed in corners of rooms or near obstructions. Samplers shall be placed randomly around the regulated abatement work area. If the regulated abatement work area contains a 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 number of rooms shall be selected, but in no case shall fewer samples be collected than the required number of samples based upon floor area. (See Table 2)

(2) **Placement of Outdoor Air Sampling Equipment.** Outdoor air sampling equipment shall be placed four (4) to six (6) feet above grade level and at least ten (10) feet away from obstructions that may influence wind patterns. If access to electricity and security concerns dictates a rooftop site, locations within ten (10) feet of vents or other structures on the roof shall be avoided.

(3) **Samplers Outside of the Regulated Abatement Work Area.** Air sampling equipment shall be placed outside the regulated abatement work area within ten (10) feet of the critical barriers, decontamination enclosure entrances/exits and negative air ducts and exhausts, as applicable. (See Table 2)

56-4.8 Area Air Sample Analysis and Results – General Requirements.

(a) **Turnaround Time.** For project air samples collected during the asbestos project, the period of time permitted between completion of air sample collection and receipt of results on the job site shall be equal to or less than 48 hours.

(b) **Microscope Detail.** The methodology chosen for sampling, analysis, and the microscope type, make, and model number shall be included in the results.

(c) **Sample Records.** All project air samples shall have a chain of custody.

56-4.9 Number and Location of Samples Required. The amount of ACM, PACM or asbestos material to be abated within the regulated abatement work area

determines the asbestos project air sampling requirements for that specific regulated abatement work area.

(a) **Phase I B Background Pre-Abatement Air Samples.** Required for Large and Small asbestos projects. (See Table 2 and Subpart 56-6)

(b) **Phase II A Regulated Abatement Work Area Preparation Air Samples.** Required for Large asbestos projects with OSHA Class I or OSHA Class II friable ACM subject to handling/abatement. (See Table 2 and Subpart 56-7)

(c) **Phase II B Asbestos Handling Air Samples.** Required for Large asbestos projects. (See Table 2 and Subpart 56-8)

(d) **Phase II C Final Cleaning & Clearance Air Samples.** Required for Large, Small and some Minor asbestos projects. (See Table 2 and Subpart 56-9)

56-4.10 Work Stoppage Criteria During Phase II A through II C. If air samples collected outside the regulated abatement work area indicate airborne fiber concentrations at or above 0.01 fibers per cubic centimeter, or the established background level, whichever is greater, work shall stop immediately for inspection and repair of barriers and negative air ventilation systems as necessary. Clean up of surfaces outside of the regulated abatement work area using HEPA-vacuums and wet-cleaning methods shall be performed prior to resumption of preparation, abatement or cleaning activities. A summary of clean up activities and the results of barrier inspections including any necessary repairs, shall be documented in the supervisor's daily project log. Work methods shall be altered accordingly to reduce fiber concentrations to acceptable levels.

(a) Submission of Elevated Air Sample Results Collected During Phase II A through II C. The air sampling asbestos contractor shall submit to the Commissioner, all PCM air sample results for air samples collected during Phase II A through II C along with background results, if they are greater than or equal to 0.01 fibers per cubic centimeter or the established background level, whichever is greater. Upon receipt of elevated air sample results, the air sample results shall be submitted immediately, within the same business day, to the Commissioner in care of the appropriate district office of the Asbestos Control Bureau, where the project takes place.

56-4.11 Phase II C Satisfactory Clearance Air Sample Results Criteria.

(a) **PCM Clearance Criteria.** The PCM clearance air sample results shall be considered satisfactory when every clearance air sample demonstrates an airborne concentration of fibers of less than 0.01 fibers per cubic centimeter, or the highest background level, whichever is greater.

(b) **TEM Clearance Criteria.** If TEM is the selected method of clearance air sampling and analysis, the clearance criteria and sampling protocols of AHERA

shall be used. If PCM air sample analysis results exceed the satisfactory clearance air criteria under this Part, then TEM analysis of the entire set of clearance air samples may be used, provided that a standard accepted laboratory analysis method is used that shall report each air sample result in fibers per cubic centimeter, for appropriate correlation to the original unsatisfactory PCM clearance air sample results and the established background level.

(c) **Submission of Satisfactory Clearance Air Sample Results.** The air sampling asbestos contractor shall submit to the Commissioner, all satisfactory PCM clearance air sample results along with background results, if they are greater than or equal to 0.01 fibers per cubic centimeter. The air sampling asbestos contractor shall also submit to the Commissioner, all sets of satisfactory TEM analyses of previously unsatisfactory PCM clearance air sample results, along with the unsatisfactory PCM results. These air sample results shall be submitted, within two (2) business days of receipt of satisfactory clearance air results, to the Commissioner in care of the appropriate district office of the Asbestos Control Bureau, where the project takes place.

56-4.12 Unsatisfactory Clearance Air Sample Results. If the regulated abatement work area clearance air sampling results are unacceptable, recleaning of regulated abatement work area surfaces using wet methods, followed by another drying time period and then collection and analysis of an additional full set of clearance air samples is required (See Section 56-9.2). This process shall be repeated until satisfactory clearance air sampling results have been achieved for all asbestos project non-exempt regulated abatement work areas throughout the entire work site.

Table 2
ASBESTOS PROJECT AIR SAMPLING AND ANALYSIS REQUIREMENTS

Air Sampling Requirements by Asbestos Project & Regulated Abatement Work Area Size	Phase I B Background Air Sampling	Phase II A Work Area Preparation Air Sampling	Phase II B Asbestos Handling Air Sampling	Phase II C Final Cleaning & Clearance Air Sampling
LARGE ASBESTOS PROJECT OR LARGE SIZE REGULATED ABATEMENT WORK AREA	Required	Required[5]	Required	Required[3]
Minimum Samples Required [1]	5 Inside Regulated Abatement Work Area & 5 Outside Regulated Abatement Work Area in Building/Structure [2]	1 per decontamination entrance/exit 1 per negative air exhaust or per bank of 5 exhausts 2 at critical barriers 1 outside the building/structure		5 Inside Regulated Abatement Work Area [7] & 5 Outside Regulated Abatement Work Area in Building/Structure [2]
SMALL ASBESTOS PROJECT OR SMALL SIZE REGULATED ABATEMENT WORK AREA	Required	Not Required		Required[5]
Minimum Samples Required [1]	3 Inside Regulated Abatement Work Area & 3 Outside Regulated Abatement Work Area in Building/Structure [2]	0		3 Inside Regulated Abatement Work Area & 3 Outside Regulated Abatement Work Area in Building/Structure [2]
MINOR ASBESTOS PROJECT OR MINOR SIZE REGULATED ABATEMENT WORK AREA	Not Required	Not Required		Required[3, 4]
Minimum Samples Required [1]	0	0		1 Inside Regulated Abatement Work Area & 1 Outside Regulated Abatement Work Area

Notes:
(1) For sample location and total number required, see Subparts 56-6 through 56-9.
(2) 1 sample outside the building/structure if entire building/structure is regulated abatement work area.
(3) Required on glove bag failure or loss of integrity, or tent failure or loss of integrity.
(4) Required for an Incidental Disturbance Project or if minor size regulated abatement work area is part

of small or large asbestos project.

(5) Required for all OSHA Class I and Class II Friable ACM asbestos projects.
(6) During IIC final cleaning stage, air sampling as per Phase IIB is required.
(7) One additional inside sample shall be required for every 5,000 sq. ft. above 25,000 sq. ft. of floor space within the regulated abatement work area.

NYC 9/11 Public Portal Document

SUBPART 56-5
PHASE IA: ASBESTOS SURVEY PLANNING AND DESIGN

56-5.1 Asbestos Survey Requirements for Building/Structure Demolition, Renovation, Remodeling and Repair

(a) **Asbestos Survey Required.** An owner or an owner's agent, except the owner of one and two-family dwellings who contracts for, but does not direct or control the work, shall cause to be conducted, an asbestos survey completed by a licensed asbestos contractor using inspectors certified in compliance with Section 56-3.2(d), to determine whether or not the building or structure, or portion(s) thereof to be demolished, renovated, remodeled, or have repair work, contains ACM, PACM or asbestos material. This asbestos survey shall be completed and submitted as indicated in Subdivision (g) of this Section, prior to commencing work. All such asbestos surveys shall be conducted in conformance with the requirements of Subdivision (e) of this Section.

(b) **Exemptions To Asbestos Survey Requirements**: The asbestos survey required by this Subdivision (a) of this Section shall not be required for the following classes of buildings or structures:

(1) an agricultural building;

(2) buildings or structures for which original construction commenced on or after January 1, 1974;

(3) A structure certified in writing to be structurally unsound by a licensed Professional Engineer, Registered Architect, Building Inspector, Fire Inspector or other official of competent jurisdiction. (See Section 56-11.5)

(c) **Building/Structure Demolition**. If a building/structure asbestos survey is not required or performed per Subdivision (b) of this Section, and the building/structure is certified to be unsound or slated for contracted demolition, the building/structure shall be assumed to contain asbestos, and shall be demolished per this Part, unless the building/structure is adequately certified to be free of asbestos containing material. Acceptable documentation for certification shall be a previous thorough building/structure asbestos survey, abatement records or other documentation acceptable to the Commissioner or his or her representative.

(d) **Responsibility To Comply.** No exemption to the requirement to conduct a asbestos survey shall exempt any person, asbestos contractor, property owner or business entity from the inspection or asbestos survey requirements of EPA, OSHA, and any other applicable section of this Part.

(e) **Building/Structure Asbestos Survey Requirements.** The asbestos survey

CITY_21MC100_003246534

NYC-WTC_000438609

shall include a thorough inspection for and identification of all PACM, suspect miscellaneous ACM, or asbestos material throughout the building/structure or portion thereof to be demolished, renovated, remodeled, or to have repair work. The required inspection shall be performed by a certified asbestos inspector, and, at a minimum, shall include identification of PACM, suspect miscellaneous ACM or asbestos material by all of the following methods:

(1) The review of building/structure plans and records, if available, for references to asbestos, ACM, PACM, suspect miscellaneous ACM or asbestos material used in construction renovation or repair; and

(2) A visual inspection for PACM and suspect miscellaneous ACM throughout the building/structure or portion thereof to be demolished, renovated, remodeled, or repaired. For the purpose of this Part, all PACM and suspect miscellaneous ACM visually assessed shall be treated and handled as ACM and shall be assumed to be ACM, unless bulk sampling is conducted as per this section, standard EPA and OSHA accepted methods, including multi-layered systems sampling protocols; the subsequent analyses are performed by a laboratory that meets the requirements of Section 56-4.2 of this Part; and the analyses satisfies both ELAP and federal requirements, including multi-layered sample analyses, to document non-asbestos containing material.

(f) **Building/Structure Asbestos Survey Information.**

(1) The asbestos survey shall, at a minimum, identify and assess with due diligence, the locations, quantities, friability and conditions of all types of installations at the affected portion of the building/structure relative to the ACM, suspect miscellaneous ACM, PACM or asbestos material contained therein. The following list is not inclusive of all types of ACMs, it only summarizes typical ACMs. The certified asbestos inspector is responsible for identification and assessment of all types ACM, PACM, suspect miscellaneous ACM and asbestos material within the affected portion of the building/structure:

PACM

(i) **Surfacing Treatments:**

(a) Fireproofing;

(b) Acoustical Plaster;

(c) Finish Plasters; and

(d) Skim Coats of Joint Compound.

(ii) **Thermal System Insulation:**

(a) Equipment Insulation;

(b) Boiler, Breeching, Boiler Rope, Duct, or Tank Insulation, Cement or Mortar Used for Boilers and Refractory Brick;

(c) Piping and Fitting Insulations including but not limited to, Wrapped Paper, Aircell, Millboard, Rope, Cork, Preformed Plaster, Job Molded Plaster and coverings over fibrous glass insulation.

SUSPECT MISCELLANEOUS ACM

(i) **Roofing and Siding Miscellaneous Materials:**

(a) Insulation Board;

(b) Vapor Barriers;

(c) Coatings;

(d) Non-Metallic or Non-Wood Roof Decking

(e) Felts;

(f) Cementitious Board (Transite);

(g) Flashing;

(h) Shingles; and

(i) Galbestos.

(ii) **Other Miscellaneous Materials:**

(a) Dust and Debris;

(b) Floor Tile;

(c) Floor Leveler Compound;

(d) Ceiling Tile;

(e) Vermiculite Insulation

(f) Gaskets, Seals, Sealants (including for condensate control);

(g) Vibration Isolators;

(h) Laboratory Tables and Hoods;

(i) Chalkboards;

(j) Pipe Penetration Packing or Other Firestopping Materials

(k) Cementitious Board;

(l) Fire Curtains;

(m) Fire Blankets;

(n) Fire Doors;

(o) Brakes and Clutches;

(p) Mastics, Adhesives and Glues;

(q) Caulks;

(r) Sheet Flooring (Linoleum);

(s) Wallpaper;

(t) Drywall;

(u) Plasterboard

(v) Spackling/Joint Compound;

(w) Textured Paint;

(x) Grout;

(y) Glazing Compound; and

(z) Terrazzo.

(2) All ACM, PACM, suspect miscellaneous ACM, or asbestos material reported under Paragraph (1) of this Subdivision shall include the location of the materials, an estimate of the quantities, types, friability and condition of the identified materials to be treated and handled as ACM. For the purpose of this Part, all PACM and suspect miscellaneous ACM visually assessed shall be treated and handled as ACM and shall be assumed to be ACM, unless bulk sampling is conducted as per this section, standard EPA and OSHA accepted methods, including multi-layered systems sampling protocols; the subsequent analyses are performed by a laboratory that meets the requirements of Section 56-4.2 of this Part; and the analyses satisfies both ELAP and federal requirements, including multi-layered sample analyses, to document non-asbestos containing material.

(3) The building/structure asbestos survey shall also include the building/structure name, address, the building/structure owner's name and address, the name and address of the owner's agent, the name of the firm performing the asbestos survey and a copy of the firm's current asbestos handling license, the names of the certified inspector(s) performing the survey and a copy of the current asbestos handling certificate for each inspector utilized, the dates of the asbestos survey, a listing of homogeneous areas identifying which ones are ACM, all laboratory analyses reports for bulk samples collected, and copies of the appropriate certifications for the laboratory used for analysis of samples taken during the asbestos survey.

(g) **Transmittal of Building/Structure Asbestos Survey Information.** One copy of the results of the building/structure asbestos survey shall be immediately transmitted by the building/structure owner as follows:

(1) One copy of the completed asbestos survey shall be sent by the owner or their agent to the local government entity charged with issuing a permit for such demolition, renovation, remodeling or repair work under applicable State or local laws.

(2) The completed asbestos survey for demolition or pre-demolition asbestos projects shall also be submitted to the Asbestos Control Bureau district office that is closest to the building or structure location.

(3) The completed asbestos survey shall be kept on the construction site with the asbestos notification and variance, if required, throughout the duration of the asbestos project and any associated demolition, renovation, remodeling or repair project.

(h) **Removal Required.** If the building/structure asbestos survey finds that the portion of the building/structure to be demolished, renovated, remodeled, or have repair work contains ACM, PACM, suspect miscellaneous ACM assumed to be ACM, or asbestos material, the owner or the owner's agent shall conduct, or cause to have conducted, asbestos removal performed by a licensed asbestos abatement contractor in conformance with all standards set forth in this Part. All ACM, PACM, suspect miscellaneous ACM assumed to be ACM, or asbestos material impacted by the demolition, renovation, remodeling or repair project shall be removed as per this Part, prior to access or disturbance by other uncertified trades or personnel. No demolition, renovation, remodeling or repair work shall be commenced by any owner or the owner's agent prior to the completion of the asbestos abatement in accordance with the notification requirements of this Part. For multi-phased work, the access restriction for uncertified trades or personnel applies to each intermediate portion of the entire project. Upon completion of the intermediate portion of the asbestos project, other trades or personnel may access that portion of the work site. For demolition projects that are exempt from asbestos survey requirements due to

being structurally unsound, the demolition is considered an asbestos project and shall proceed as per Section 56-11.5.

(1) All building/structure owners on a demolition, renovation, remodeling, or repair project, which includes work covered by this Part, shall inform all trades on the work site about PACM, ACM, asbestos material and suspect miscellaneous ACM assumed to be ACM at the work site.

(i) **Bidding.** Bids may be advertised and contracts awarded for demolition, remodeling, renovation, or repair work, but no work on the current intermediate portion of the project shall commence on the demolition, renovation, remodeling or repair work by any owner or agent prior to completion of all necessary asbestos abatement work for the current intermediate portion of the entire project, in conformance with all standards set forth in this Part.

(j) **Unidentified and Unassessed Asbestos.** When any construction activity, such as demolition**,** remodeling, renovation or repair work, reveals PACM or suspect miscellaneous ACM that has not been identified by the asbestos survey per this Part, or has not been identified by other inspections as per current OSHA or EPA requirements, all activities shall cease in the area where the PACM or suspect miscellaneous ACM is found and the Asbestos Control Bureau shall be notified by telephone followed with a written notice in accordance with the notification requirements of this Part. Unassessed PACM or suspect miscellaneous ACM shall be treated and handled as ACM and assumed to be ACM, unless proven otherwise by standard EPA and OSHA accepted methods, including multi-layered systems sampling protocols; subsequent analyses performed by a laboratory that meets the requirements of Section 56-4.2 of this Part; and the analyses satisfies both NYS ELAP and federal requirements, including multi-layered sample analyses, to document non-asbestos containing material.

SUBPART 56-6
PHASE 1B: BACKGROUND AIR SAMPLING

56-6.1 General Requirements. See Subpart 56-4

56-6.2 Number and Location of Background Air Samples.

(a) **Phase 1 B Background Sampling - Large Asbestos Project.** Prior to asbestos abatement contractor mobilization and starting Phase II A, a minimum of five (5) samples shall be taken inside the intended regulated abatement work area, and a minimum of five (5) samples shall be taken outside of the intended regulated abatement work area within the building or structure in uncontaminated areas that are within ten (10) feet of the anticipated locations of isolation or critical barriers. If the entire building/structure is the intended regulated abatement work area, the five (5) air samples outside the regulated abatement work area shall be eliminated, and a minimum of one background ambient air sample shall be taken outside of the building or structure, as close as possible to the area where abatement work is to be conducted. See Table 2 in Section 56-4.9

(b) **Phase I B Background Sampling - Small Asbestos Project.** Prior to asbestos abatement contractor mobilization and starting Phase II A, a minimum of three (3) samples shall be taken inside the intended regulated abatement work area and three (3) samples shall be taken outside of the intended regulated abatement work area within the building or structure in uncontaminated areas that are within ten feet of the anticipated locations of isolation or critical barriers. If the entire building/structure is the intended regulated abatement work area, the three (3) air samples outside the regulated abatement work area shall be eliminated, and a minimum of one (1) background ambient air sample shall be taken outside of the building or structure, as close as possible to the area where abatement work is to be conducted. See Table 2 in Section 56-4.9

(c) **Phase I B Background Sampling – Minor Asbestos Project.** Not Required.

56-6.3 Establishment of Background Level. The most elevated air sample result per set of background air samples is the established background level for that intended regulated abatement work area.

CITY_21MC100_003246540

NYC-WTC_000438615

NYC 9/11 Public Portal Document

SUBPART 56-7
PHASE II A : WORK AREA PREPARATION

56-7.1 Air Sampling Requirements.

(a) **Personal Air Sampling.** Air sampling shall be performed in the worker's breathing zone, by the asbestos contractor for his personnel, as required by current OSHA regulations.

(b) **Daily Air Sampling.** Project air sampling shall be conducted daily for the full workshift, for all Large size projects with OSHA Class I or OSHA Class II friable ACM subject to handling/abatement. (See Table 2 within Section 56-4.9) If more than one daily workshift is required to accomplish the work, air sampling shall be performed on each workshift. Air sampling is not required on days when there are no Phase II A activities.

(c) **Number And Location Of Samples – Large Asbestos Projects.** A minimum of five (5) samples shall be taken on a daily basis. The location of samples to be taken are as follows:

(1) A minimum of two (2) samples shall be taken outside the regulated abatement work area, within ten (10) feet of the isolation or critical barriers. When positive pressurized HVAC ducts are located within the regulated abatement work area, one of these samples shall be collected within ten (10) feet of an HVAC diffuser, at the downstream side of the positive pressurized HVAC ducts, in adjoining non-work areas. Where the entire building/structure is the regulated abatement work area, an additional exterior ambient air sample, remote from that in Paragraph (3) of this Subdivision below shall be taken.

(2) A minimum of one (1) sample shall be taken outside the regulated abatement work area, within ten (10) feet of and within proximity to each entrance or exit from the regulated abatement work area.

(3) One (1) ambient air sample shall be taken outside the building or structure within twenty-five (25) feet of the building or structure.

(4) Once the negative air systems have been established, one (1) sample shall be taken in front of and within ten (10) feet of each unobstructed, negative pressure ventilation equipment exhaust or bank (grouping of not more than five (5) exhaust ports at one termination area) of exhausts but not within a duct itself.

(5) Once the negative air systems have been established, where negative ventilation unit exhaust ducts run through the non-work area portions of building or structure to access the exterior, one (1) sample shall be

CITY_21MC100_003246541

NYC-WTC_000438616

NYC 9/11 Public Portal Document

collected in the building or structure, within ten (10) feet of the duct system.

(6) If remote decontamination units are used, one (1) sample shall be collected at the entrance to and exit from each personal decontamination and waste decontamination enclosure.

(c) **Work Stoppage Criteria During Phase II A Abatement Procedures.** If air samples collected outside the regulated abatement work area, indicate airborne fiber concentrations at or above 0.01 fibers per cubic centimeter, or the established background level, whichever is greater, work shall stop immediately for inspection and repair of barriers and negative air ventilation systems as necessary. Clean up of surfaces outside of the regulated abatement work area using HEPA-vacuums and wet-cleaning methods shall be performed prior to resumption of work area preparation activities. A summary of clean up activities and the results of barrier inspections including any necessary repairs, shall be documented in the supervisor's daily project log. Work methods shall be altered accordingly to reduce fiber concentrations to acceptable levels. No ACM, PACM or asbestos material shall be disturbed during Phase IIA activities.

56-7.2 Materials and Equipment.

(a) **Storage of Materials.** Asbestos Project non-ACM preparatory and waste transfer materials (i.e. plastic sheeting, duct tape, clean waste containers, etc.) shall be stored to prevent damage or contamination. Replacement materials shall be stored outside all project regulated abatement work areas, staging areas and waste transfer/storage areas until Phase II C is completed.

(b) **Damaged or Deteriorating Materials.** Damaged or deteriorating non-ACM materials shall not be used and shall be removed from the premises.

(c) **Fireproofing or Insulation Protection.** When ACM, PACM or asbestos material that has been used for fireproofing or insulation protection has been removed as part of an asbestos project, and the building is not scheduled for demolition or replacement of the affected building system, protection at least equivalent to that removed, shall be installed and maintained by the building/structure owner in conformance with all applicable codes.

(d) **Adhesive Materials.** Duct tape and spray adhesive shall be capable of sealing joints of adjacent sheets of plastic, facilitating attachment of plastic sheets to finished or unfinished surfaces of dissimilar materials and adhering under both dry and wet conditions.

(e) **Caulks.** Non-ACM products shall be used to seal openings and penetrations during regulated abatement work area preparation and installation of critical barriers.

(f) **Containers.** Watertight lockable containers shall be provided to receive and retain any asbestos containing or contaminated material for storage until disposal. The containers shall be marked with danger labels.

CITY_21MC100_003246542

NYC-WTC_000438617

NYC 9/11 Public Portal Document

(g) **Enclosure Project Material.** Materials for enclosure projects shall be impact resistant and installed to be airtight.

(h) **Fire-Retardant Expandable Foam.** Non-ACM products with a flashpoint above 140 degrees Fahrenheit, shall be used to seal openings and penetrations during regulated abatement work area preparation and installation of critical barriers.

(i) **Ladders or Scaffolds.** Where ladders or scaffolds are used on a project to allow all work surfaces to be easily and safely reached for removal and cleaning, care shall be taken to prevent breaching of the containment areas. Scaffold joints and ladder ends shall be sealed with duct tape to prevent incursion of asbestos. Scaffolds, ladders and their use shall comply with OSHA 29 CFR 1926 and other applicable codes.

(j) **Ladders and Scaffolds for Visitors.** During Phase II of the asbestos project, the asbestos abatement contractor shall make available, to authorized visitors, ladders or scaffolds of sufficient dimension and quantity so that all work surfaces can be easily and safely reached. Scaffolds, ladders and their use shall comply with OSHA 29 CFR 1926 and other applicable codes.

(k) **Plastic Bags**. Plastic bags used for waste storage or disposal shall be at least six (6) mil in thickness and be marked with danger labels.

(l) **Plastic Sheeting.** Fire-retardant plastic sheeting of at least six (6) mil thickness in sizes and shapes to minimize the number of joints shall be used.

(m) **Repair Materials.** Non-ACM materials shall be used. Repair materials shall be compatible with existing materials and substrates. Insulation and other repair materials shall also comply with all applicable building, energy and fire codes and shall be installed in accordance with these codes and manufacturer's recommendations.

(n) **Surfactants.** Any surfactant used shall be non-carcinogenic and non-toxic in its liquid form.

56-7.3 Asbestos Abatement Contractor Daily Project Log. The asbestos abatement contractor shall maintain a daily project log of all pertinent events that occur throughout Phase II of the asbestos project. This project log shall be updated daily throughout Phase II by the on-site supervisor, and shall be kept on-site for the duration of Phase II of the asbestos project. This log shall be made available upon verbal request of the Commissioner or his or her duly authorized representative. The following list summarizes the various sections of this Part that require entries into the daily project log by the asbestos abatement contractor supervisor:

(a) **Sections 7.1(c), 8.1(c), 9.2(a2) - Work Stoppage Due to High Air Results.** High air result(s) shall be noted along with the time of the work cessation, results of barrier and negative air system inspection, and a summary of any necessary repairs and the required cleaning.

(b) **Section 7.8(a4) - Manometer Readings.** To be documented twice per workshift.

(c) **Section 7.8(a10) - Negative Air System.** Daily (even days without workshifts)

CITY_21MC100_003246543

NYC-WTC_000438618

inspection results and any necessary repairs to be documented.

(d) **Section 7.9(d3) - HVAC System Positive Pressurization.** Daily (even days without workshifts) inspection and any necessary repairs to be documented.

(e) **Section 8.2(d) - Inspection of Barriers.** Daily (even days without workshifts) inspection results and any necessary repairs to be documented. Inspections shall be twice per workshift on days with scheduled work.

(f) **Section 8.2(f) - Testing of Barriers and Enclosures.** Daily testing and any resulting necessary repairs to be documented.

(g) **Section 8.2(h) - Daily Cleaning of Enclosures.** Cleaning to be documented daily at the end of the workshift.

(h) **Section 8.6(b)(2)(iv) - Intermediate Completions.** Results of each visual inspection and time of each intermediate completion shall be documented by the supervisor in the daily project log.

(i) **Section 9.1(d) - Visual Inspection by Project Monitor Prior to Clearance Air Sampling.** To be documented in daily log by project monitor, along with supervisor.

(j) **Section 9.2(d) - Visual Inspection by Project Monitor for Regulated Abatement Work Areas Exempt from Clearance Air Sampling.** To be documented in daily project log by project monitor, along with supervisor.

(k) **Sections 9.2(h), 10.4, 11.4(g), 11.6(g), 11.7(g), 11.8(g) - Final Inspection.** To be documented by supervisor at completion of asbestos project.

56-7.4 Establishing Each Regulated Abatement Work Area.

(a) **Vacating of Regulated Abatement Work Area.** The regulated abatement work area shall be vacated by the occupants and non-certified personnel, prior to work area preparation, and shall remain vacated until satisfactory clearance air-sampling results have been achieved or the asbestos project is complete.

(b) **Restricted Entry.** Entry to the regulated abatement work area shall be restricted to the asbestos contractors involved with the asbestos project, employees of the asbestos contractors, authorized visitors, and other public safety personnel. Police and fire officials may enter the work site and not be subject to this Part only on an emergency basis.

(c) **Signs.** Asbestos Caution signs shall be posted to restrict access to the regulated abatement work area at all locations and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels. During Phase II A - D activities, signs shall be posted at locations such that persons may take the necessary protective measures to avoid potential exposure.

56-7.5 Personal and Waste Decontamination System Enclosures

(a) **Installation.** Personal decontamination system enclosures shall be constructed and functional prior to commencing the remainder of the Phase IIA regulated

NYC 9/11 Public Portal Document

abatement work area preparation activities. Waste decontamination system enclosures shall be constructed and functional at the completion of Phase IIA preparation activities. After installation of the personal decontamination system enclosure, all access to the regulated abatement work area shall be via the installed personal decontamination system enclosure.

(b) **Personal Decontamination System Enclosure - Large Project.**

(1) **Enclosure – General.** A personal decontamination system enclosure shall be provided outside the regulated abatement work area and attached to all locations where personnel shall enter or exit the regulated abatement work area. One personal decontamination enclosure system for each regulated abatement work area shall be required. This system may utilize adequate existing lighting sources or shall be supplied with a GFCI protected temporary lighting system. The personal decontamination system enclosure shall be sized to accommodate the number of workers and equipment required for the intended purpose. Such system may consist of existing attached rooms outside of the regulated abatement work area, if the layout is appropriate, that can be plasticized and are accessible from the regulated abatement work area. When this situation does not exist, personal decontamination enclosure systems may be constructed of metal, wood or plastic supports covered with a minimum of one (1) layer of six (6) mil fire-retardant plastic sheeting on the ceiling, walls and floor of the enclosure system. At least two (2) layers of six (6) mil fire-retardant reinforced plastic sheeting shall be used for flooring protection of this area. This system must be kept clean, sanitary and climate controlled at all times in conformance with all federal, state and local government requirements. This system shall remain on-site, operational and be used until completion of Phase II C of the asbestos project.

(2) **Rooms and Configuration.** The personal decontamination system enclosure shall consist of a clean room, a shower room and an equipment room connected in series but separated from each other by airlocks. There shall be a curtained doorway separation between the equipment room and the regulated abatement work area, and there shall be a lockable door to the outside. (See Figure 1 within this Section) Minimum dimensions for each airlock, shower room and equipment room shall be three (3) feet wide by six (6) feet in height, to allow for adequate access to and from the regulated abatement work area.

(3) **Curtained Doorway.** An assembly which consists of at least three (3) overlapping sheets of 6-mil 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 insure that the sheets hang straight and maintain a seal over the doorway when not in use.

CITY_21MC100_003246545

NYC-WTC_000438620

NYC 9/11 Public Portal Document

(4) **Framing.** Enclosures systems accessible to the public shall be fully framed, hard-wall sheathed and utilize a lockable door for safety and security.

(5) **Sheathing.** A plywood or oriented strand board (OSB) sheathing material of at least 3/8-inch thickness.

(6) **Plastic Sheeting.** Enclosure systems constructed at the work site shall use at least two (2) layers six (6) mil fire-retardant plastic sheeting on walls, floor and ceiling. At least two (2) layers of six (6) mil fire-retardant reinforced plastic sheeting shall be used for floor protection of this area.

(7) **Prefabricated or Trailer Units.** A completely watertight fiberglass or marine painted prefabricated unit does not require plasticizing. Rooms shall be configured as per paragraph (2) of this section. All prefabricated or trailer decontamination units shall be kept in good condition, and shall be completely decontaminated after final cleaning and immediately prior to clearance air sampling. Upon receiving satisfactory clearance air results, the prefabricated units shall be sealed then separated from the regulated abatement work area and removed from the site.

(8) **Clean Room.** The clean room shall be sized to accommodate a full workshift of asbestos abatement contractor personnel, as well as the air sampling technician and the project monitor. The clean room shall be a minimum of six (6) feet in height. A minimum of thirty-two (32) square feet of floor space shall be provided for every six (6) full shift abatement workers, calculated on the basis of the largest work shift. If the largest work shift consists of three (3) or less full shift abatement workers, the minimum clean room size requirement is reduced to twenty-four square feet of floor space. Benches, lockers and hooks shall be provided for street clothes. Shelves for storing respirators shall be provided. Clean clothing, replacement filters for respirators, towels and other necessary items shall be provided. The clean room shall not be used for storage of tools, equipment or materials. It shall not be used for office space. A lockable door shall be provided to permit access to the clean room from outside the regulated abatement work area or enclosure and shall be used to secure the regulated abatement work area and decontamination enclosure during non-work hours.

(9) **Shower Room.** The shower room shall contain one (1) shower per every six (6) full shift abatement workers, calculated on the basis of the largest work shift. Multiple showers shall be simultaneously accessible (installed in parallel) to certified personnel. Each showerhead shall be supplied with hot and cold water adjustable at the tap. The shower enclosure shall be constructed to ensure against leakage of any kind. Uncontaminated soap, shampoo and towels shall be available at all times. Shower water shall be drained, collected and filtered through a system with at least 5.0-micron particle size collection capability. Submersible pumps shall be installed, maintained and utilized in accordance with pertinent OSHA regulations

CITY_21MC100_003246546

NYC-WTC_000438621

and manufacturer's recommendations. A multi-stage filtering system containing a series of several filters with progressively smaller pore sizes shall be used to avoid rapid clogging of the filtering system by larger particles. Filtered wastewater shall be discharged in accordance with applicable codes. Contaminated filters shall be disposed of as asbestos-contaminated waste.

(10) **Equipment Room.** The equipment room shall be used for the storage of decontaminated equipment and tools. A one (1) day supply of replacement filters for HEPA-vacuums and negative pressure ventilation equipment in sealed containers, extra tools, containers of surfactant and other materials and equipment that may be required during the abatement project may also be stored here. A container lined with a labeled, at least six (6) mil plastic bag for collection of clothing shall be located in this room. Contaminated footwear and work clothes shall be stored in this area.

(11) **Airlocks.** Airlock construction shall consist of two (2) curtained doorways with three (3) alternating six (6) mil fire retardant polyethylene curtains per doorway, separated by a distance of at least three (3) 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 next doorway. Minimum airlock size shall be three (3) feet wide, by three (3) feet long, by six (6) feet in height.

(c) **Personal Decontamination System Enclosure - Small Project.**

(1) **Enclosure Requirements.** A personal decontamination system enclosure for a Small asbestos project shall consist of, at a minimum, an equipment room, a shower room and a clean room separated from each other and from the regulated abatement work area and other areas by curtained doorways as defined in Section 56-2.1. All other provisions for personal decontamination system for a Large asbestos project shall apply. Equipment storage, personal gross decontamination and removal of clothing shall occur in the equipment room just prior to entering the shower. (See Figure 4 in this Section) The full personal decontamination system enclosure specified for Large asbestos projects is recommended.

(d) **Remote Personal Decontamination System Enclosure.** If a personal decontamination system cannot be attached to the regulated abatement work area, due to available space restrictions or other building and fire code restrictions, a remote personal decontamination system enclosure may be used for limited special projects as per subpart 56-11, negative pressure tent enclosure work areas with glovebag only abatement, or if:

(1) non-friable ACM is being removed in a manner which will not render the ACM friable.

(i) **Limitation.** If it is found during Phase IIB, that the non-friable ACM or asbestos material will become friable during the removal process, abatement work must stop immediately while the remote

personal decontamination system is relocated to be attached and contiguous to the regulated abatement work area.

The following requirements apply for all remote personal decontamination systems:

(1) **Protective Clothing.** Workers shall don two (2) sets of disposable protective clothing and a supply of protective clothing shall be kept in the airlocks attached to the regulated abatement work area.

(2) **Location.** The remote personal decontamination system shall be constructed as close to the regulated abatement work area as physically possible. If the remote personal decontamination system must be located at the exterior of the building/structure due to space or code restrictions, it shall be constructed within 50 feet of the building/structure exit used for access by the asbestos abatement contractor personnel. The decontamination unit shall be cordoned off at a distance of 25 feet to separate it from public areas.

(3) **Airlocks.** At a minimum, two (2) extra airlocks as defined in Section 56-2.1 shall be constructed as per Section 56-7.5(b)(9). One shall be constructed at the entrance to the equipment room, equipment/washroom or shower/washroom. The other extra airlock shall be constructed at the entrance to the containment or regulated abatement work area(s). These airlocks shall have lockable doorways at the entrance to the airlock from uncontaminated areas. These airlocks shall be cordoned off at a distance of twenty-five (25) feet and appropriately signed in accordance with Section 56-7.4(c). Airlocks shall not be used as a waste decontamination area and shall be kept clean and free of asbestos containing material. For multiple rooms, there shall be an airlock in each room.

(4) **Designated Pathway.** The walkway from the regulated abatement work area to the personal decontamination system or next regulated abatement work area shall be cordoned off to delineate it from public areas while in use during Phase IIA through IID.

(5) **Travel Through Uncontaminated Areas.** If at any time a worker must travel through an uncontaminated area to access the personal decontamination area, the worker shall HEPA-vacuum and/or wet wipe his/her outer protective clothing while in the regulated abatement work area, then proceed into the airlock, which serves as a changing area, where he/she shall remove the outer clothing and don a clean set of protective clothing. The worker may then proceed to the personal decontamination system enclosure only along a designated pathway as described above. Travel in any other area shall not be allowed.

(6) **Removal.** The remote personal decontamination unit shall be removed only after satisfactory clearance air sampling results have been achieved.

(e) Waste Decontamination System Enclosure - Large and Small Asbestos Projects.

NYC 9/11 Public Portal Document

(1) **Enclosure – General.** A waste decontamination system enclosure shall be provided outside the regulated abatement work area and shall be attached to the regulated abatement work area. One waste decontamination enclosure for each regulated abatement work area shall be required. This system may utilize adequate existing lighting sources or shall be supplied with a GFCI protected temporary lighting system. The waste decontamination system enclosure shall be sized to accommodate the number of workers and equipment for the intended purpose. Such system may consist of existing attached rooms outside of the regulated abatement work area, if the layout is appropriate, that can be plasticized and are accessible from the regulated abatement work area. When this situation does not exist, enclosure systems may be constructed of metal, wood or plastic supports covered with a minimum of one (1) layer of six (6) mil fire-retardant plastic sheeting on the ceiling, walls and floor of the enclosure system. At least two (2) layers of six (6) mil fire-retardant reinforced plastic sheeting shall be used for flooring protection of this area. This system must be kept clean, sanitary and climate controlled at all times in conformance to all federal, state and local government requirements. This system shall remain and be used until completion of Phase II C of the asbestos project.

(2) **Rooms and Configuration.** A waste decontamination system enclosure shall consist of a washroom and a holding area connected in series but separated from each other by an airlock. There shall be a lockable door to the outside, and there shall be a curtained doorway between the washroom and the regulated abatement work area. (See Figure 2 in this Section)

(3) **Curtained Doorway.** An assembly which consists of at least three (3) overlapping sheets of 6-mil 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 insure that the sheets hang straight and maintain a seal over the doorway when not in use.

(4) **Washroom.** A room/chamber between the regulated abatement work area and the holding area in the waste decontamination system enclosure, where equipment and waste containers are wet cleaned or HEPA-vacuumed. Adequate drainage and bag/container wash water shall be provided within the room/chamber, as well as a sufficient quantity of clean waste bags/containers.

(5) **Equipment/Washroom Alternative.** Where there is only one exit from the regulated abatement work area, the holding area of the waste decontamination system enclosure may branch off from the equipment room of the personal decontamination system enclosure. The equipment room will also be used as a waste washroom. (See Figure 3 in this Section)

CITY_21MC100_003246549

NYC-WTC_000438624

(6) **Plastic Sheeting.** Waste decontamination system enclosures constructed at the work site shall use at least two (2) layers of six (6) mil fire-retardant plastic sheeting on walls, ceiling and floor. At least two (2) layers of six (6) mil fire-retardant reinforced plastic sheeting shall be used for flooring protection of these areas.

(7) **Enclosure Security.** The waste decontamination system enclosure and regulated abatement work area airlock(s) (when remote decontamination systems are used) shall be constructed with lockable doors to prevent unauthorized entry. Enclosures systems located within 25 feet of an area of public access shall be fully framed and hard-wall sheathed for safety.

(8) **Drains.** The waste washroom shall be equipped with a wash bin of sufficient size to perform waste container washing operations and shall have a submersible pump installed to collect waste water and deliver it to the shower wastewater filtration system where it shall be filtered in accordance with paragraph (b)(9) of this Section. Waste shall be transferred only during times when the showers are not in use.

(9) **Shower/Washroom Alternative - Small Asbestos Project.** For Small asbestos projects with only one (1) exit from the regulated abatement work area, the shower room may be used as a waste washroom. The clean room shall not be used for waste storage, but shall be used for waste transfer to carts, which shall be immediately removed from the enclosure. (See Figure 4 in this Section)

(f) Waste Decontamination System Enclosure - When Remote Personal Is Allowed. When a remote personal decontamination system enclosure is allowed and utilized for a regulated abatement work area, the following requirements shall apply:

(1) **Minor Size Regulated Abatement Work Area.** No specific waste decontamination system enclosure is required for minor size regulated abatement work areas. The waste generated shall be immediately bagged/containerized within the regulated abatement work area.

(2) Small & Large Size Regulated Abatement Work Areas.

(i) **Washroom.** An additional chamber shall be constructed within the regulated abatement work area, attached to the existing airlock used to access the work area. The washroom/airlock combination shall be utilized as the contiguous waste decontamination enclosure for waste bagging/containerization and waste transfer activities. The washroom shall be constructed and supplied with equipment/materials consistent with waste decontamination system enclosure washroom requirements for contiguous personal and waste decontamination system enclosures.

(ii) **Removal.** The washroom chamber shall be removed only after satisfactory clearance air sampling results have been achieved.

Figure 1
PERSONAL DECONTAMINATION SYSTEM ENCLOSURE
LARGE ASBESTOS PROJECT (OPTIONAL FOR SMALL ASBESTOS PROJECT)

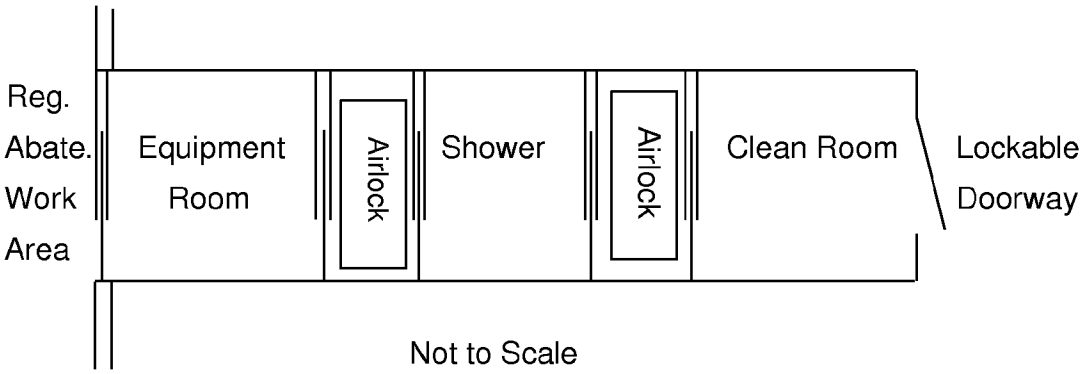


Figure 2
WASTE DECONTAMINATION SYSTEM ENCLOSURE
LARGE ASBESTOS PROJECT
(OPTIONAL FOR SMALL ASBESTOS PROJECT)

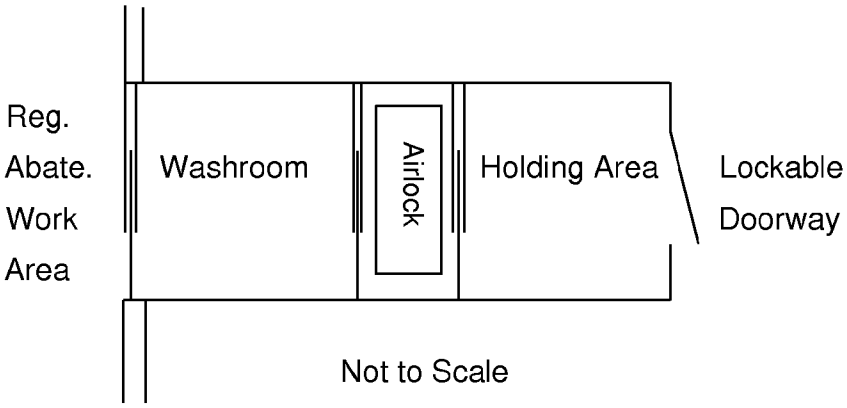


Figure 3

PARALLEL PERSONAL AND WASTE DECONTAMINATION SYSTEM ENCLOSURES

LARGE ASBESTOS PROJECT
(OPTIONAL FOR SMALL ASBESTOS PROJECT)

CITY_21MC100_003246551

NYC-WTC_000438626

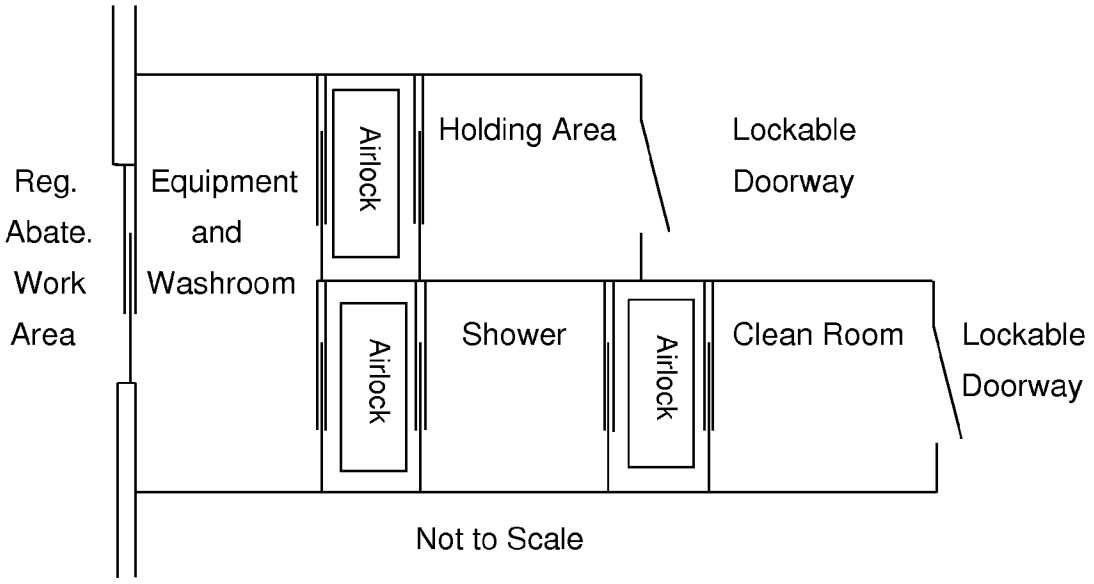
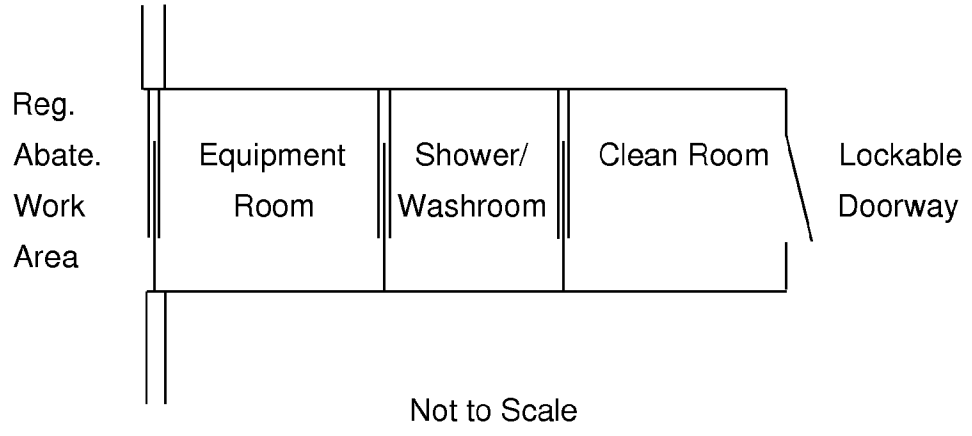


Figure 4

PERSONAL AND WASTE DECONTAMINATION SYSTEM ENCLOSURE FOR A SMALL ASBESTOS PROJECT



56-7.6 Personal Protective Equipment (PPE). After the installation of the personal decontamination system, full PPE in compliance with current OSHA regulations shall be worn in regulated abatement work areas during preparation activities, for all friable OSHA Class I or Class II asbestos projects. Asbestos abatement contractor s respirator selection, filter selection, medical surveillance and respiratory training must be consistent with current OSHA regulations. Appropriate respiratory protection is also

NYC 9/11 Public Portal Document

required of authorized visitors in accordance with this Part.

56-7.7 Electric Power. Shutdown and lock out of electric power to all enclosures within the regulated abatement work areas shall be required. All existing power to fixtures, lights, machinery and outlets within the enclosure must be shut down and locked out. The asbestos abatement contractor shall provide temporary power and lighting to the regulated abatement work area, and insure safe installation of temporary power sources and equipment used where high humidity or water shall be sprayed in accordance with all applicable codes. All temporary power to regulated abatement work areas shall be brought in from outside the regulated abatement work area. This temporary power shall be protected by a ground fault circuit interrupter (GFCI) before the entry point to the regulated abatement work area. The negative air equipment shall be on GFCI protected circuits separate from the remainder of the regulated abatement work area temporary power circuits. The GFCI temporary power connections shall be located outside of the regulated abatement work area, in a secure, dry area, which is accessible to the asbestos abatement contractor.

(a) **Electric Power Shutdown Exemption.** If electrical circuits, machinery and other electrical systems in or passing through the regulated abatement work area must stay in operation due to health and safety requirements, the following precautions must be taken:

(1) 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 regulated abatement 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.

(2) Any energized circuits remaining in the regulated abatement work areas shall be posted with a minimum of two (2) inch high lettering warning sign which reads: DANGER LIVE ELECTRICAL – KEEP CLEAR. The 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 regulated abatement work area of the existence of the energized circuits.

56-7.8 Engineering Controls.

(a) **Negative Air Pressure Equipment.** All OSHA Class I, Class III, and interior Class II asbestos abatement projects shall employ negative air pressure equipment ventilation.

(1) **Operation.** The negative air pressure equipment shall operate continuously, 24 hours a day, from startup of negative air pressure

CITY_21MC100_003246553

NYC-WTC_000438628

NYC 9/11 Public Portal Document

equipment , through the cleanup operations and satisfactory clearance air sampling results being obtained, or the asbestos project is complete.

(2) **Timing of Installation.** The negative air ventilation units shall be installed and made operational after the critical barriers and isolation barriers are installed.

(3) **Negative Air Pressure.** A negative air pressure, relative to areas outside of the enclosure, shall be maintained at all times in the regulated abatement work area during the asbestos abatement project to ensure that contaminated air in the regulated abatement work area does not escape back to an uncontaminated area.

(4) **Manometer.** A manometer shall be used to document the pressure differential for all OSHA Class I large and small size asbestos project regulated abatement work areas. A minimum of -0.02 column inches of water pressure differential, relative to pressure outside the regulated abatement work area, shall be maintained within the regulated abatement work area, as evidenced by manometric measurements. Once installed, on a daily basis at least twice per workshift, the asbestos abatement contractor s supervisor shall document the manometer reading within the daily project log. The manometer shall be installed and made operational once the negative air has been established in the regulated abatement work area. Magnahelic manometers shall be at a minimum calibrated semi-annually, and a copy of the current calibration certification shall be posted at the work site during Phase II operations.

(5) **Ventilation Units.** If more than one primary HEPA-filtered ventilation unit is installed, the units shall be turned on one at a time and the integrity of wall barriers checked for secure attachment or the need for additional reinforcement shall be checked. Units connected in series shall be considered a single unit for this test. A minimum of one additional unit having a capacity of at least equal to that of the primary unit shall be installed as a backup unit to be used upon primary unit failure, or if necessary during primary unit filter changes.

(6) **Power Supply.** A GFCI protected temporary power supply shall be available to satisfy the requirements of the total of all ventilation units.

(7) **Power Failure.** In the event of electric power supply failure, abatement shall stop immediately and shall not resume until power is restored and exhaust units are operating fully. In the event of extended power failure (longer than one hour), after evacuation of all persons from the regulated abatement work area, the decontamination system enclosure facilities shall be sealed airtight.

(8) **Air Changes.** Negative air pressure ventilation equipment shall be installed and operated continuously to provide at least four (4) air changes in the regulated abatement work area every hour including during clearance air sampling.

CITY_21MC100_003246554

NYC-WTC_000438629

(9) **Openings in Enclosure.** Openings made in the enclosure system to accommodate these units shall be made airtight with duct tape or caulking or both. Where possible, the intake side of the negative air ventilation unit shall remain within the regulated abatement work area to permit filter changing, while minimizing equipment contamination and the likelihood of contamination of non-work areas.

(10) **Installation and Care.** Proper installation procedures, including use of appropriate filters and manufacturer's recommended operating procedures shall be followed.

(i) Each HEPA filter should be individually tested and certified by the manufacturer to have an efficiency of not less than 99.97% when challenged with 0.3 micron particles. Testing shall be in accordance with accepted methodologies, and each filter should bear an appropriate UL label to indicate ability to perform under specified conditions.

(ii) Negative pressure HEPA filtered ventilation units shall be exhausted to the outside of the building or structure and away from public access and to a controllable area.

(iii) Air sampling at exhaust duct termination locations and daily inspections shall be conducted to insure that procedures are followed to maintain the negative pressure air ventilation filtration systems.

(iv) Pre-filters, secondary filters and HEPA-filters shall be replaced when dirty.

(v) Ducts of at least equivalent shape and dimension as those of the negative pressure ventilation exhaust shall be used to exhaust to the outside of the building or structure.

(vi) Booster Exhaust Fans shall be installed as required in this Section, and operated to maintain adequate flow from HEPA-filtered ventilation units to the exhaust duct termination locations.

(vii) All fans, ducts and joints shall be sealed, braced and supported to maintain an airtight system.

(viii) Once installed and operational, daily inspections shall be conducted to insure the airtight integrity of the system, and the findings shall be documented by the asbestos abatement contractor's supervisor in the daily project log. Inspection, necessary repairs and documenting is required daily, including days when no Phase IIB or IIC work or support activities are scheduled.

(ix) A four (4) foot high construction fence with appropriate signage in compliance with Section 7.4(c) shall be constructed at a minimum of ten (10) feet from the end of the exhaust duct tube, or bank of duct tubes, to surround and control this area from public access.

NYC 9/11 Public Portal Document

(11) **Exhaust Location.** The exhaust shall be vented to the outside of the building or structure, to a controllable area away from public access. Each negative pressure ventilation unit exhaust duct shall not terminate less than fifteen (15) feet from a receptor or adversely affect the air intake of any building or structure. If the exhaust duct termination location for this Section cannot be met due to allowable space restrictions or the regulated abatement work area being located above the ground floor, the exhaust shall terminate at the exterior of the building or structure, and all receptors less then fifteen (15) feet from the exterior exhaust duct termination location shall be plasticized with two (2) layers of at least 6 mil polyethylene. Exhaust tubes may be grouped together in banks of no more than five (5) tubes, with each tube exhausting separately and the bank of tubes terminating together at the same controlled area.

(i) **Exception.** HEPA-filtered vacuums used to exhaust Minor size tent enclosure regulated abatement work areas do not require exhausting to the exterior of the building/structure.

(12) **Booster Exhaust Fan Units.** If exhaust ducting in excess of 25 feet in length is attached to any ventilation unit, an unfiltered booster fan of equal flow capacity shall be installed per 25 foot of downstream exhaust ducting from the ventilation unit. Non-collapsible exhaust ducting shall be used between the booster fan units and also between the ventilation units and the booster fan units. Where possible, these booster fan units shall be installed and operated outside of the regulated abatement work area. However, booster fan units installed and operated outside the regulated abatement work area still require installation using GFCI protected temporary power circuits.

(b) **Exemption From Ventilation And Use of Negative Pressure Equipment.**

(1) The use of negative pressure air equipment is not required for the following:

(i) OSHA Class II non-friable ACM exterior projects;

(ii) asbestos projects where enclosures (i.e. hard walls, tents, etc.) are not required by this Part;

(iii) demolition asbestos abatement projects.

(2) This exemption does not relieve the asbestos abatement contractor from the negative pressure equipment requirements on other portions of the same project that require the use of negative pressure equipment.

56-7.9 Heating, Ventilation, and Air Conditioning (HVAC) Systems

(a) **Isolation.** HVAC systems shall be isolated from the regulated abatement work area. Acceptable means of HVAC system isolation include:

(1) **Shutdown and Isolation.** Shutdown and isolation of HVAC systems to prevent contamination and asbestos dispersal to other areas of the building or structure.

CITY_21MC100_003246556

NYC-WTC_000438631

(2) **Local Isolation.** Local isolation and provision for temporary HVAC.

(3) **Positive Pressurization.** Positive pressurization of the HVAC system.

(i) Positive pressurization shall be restricted to circumstances where HVAC must service the remainder of the building or structure and the HVAC equipment is in the regulated abatement work area or the ducts run through the regulated abatement work area. The appropriate HVAC duct and plenum outlets, inlets and exhaust dampers shall be sealed with caulking and a minimum 3/8-inch thickness plywood, or oriented strand board, or sufficient gauge sheet metal, covered with a double layer of at least six (6) mil fire-retardant plastic sheeting and duct taped airtight. The HVAC duct and plenum joints shall be duct taped airtight. The mixing and balancing damper positions shall be altered and the return fan(s) shall be shut down to produce the required positive pressures.

(ii) Project phasing, climate conditions, load conditions and HVAC equipment limitations and controls shall be considered when this alternate procedure is evaluated. Aerodynamics in the duct system, particularly spurs or trunks, shall be considered and, if necessary, the ducts or dampers shall be altered or removed to prevent loss of positive pressure in any part of the system. Precautions shall be taken during abatement activities to insure that the ducts, seals and static pressure lines are not damaged.

(iii) The presence of positive pressure shall be demonstrated daily by testing, including days when no Phase II work or support activities are scheduled, and the results must be noted in the asbestos abatement contractor supervisor s daily project log. Air sampling in occupied, downstream, non-work areas shall be performed on a daily basis as per the requirements of Section 56-7.1(b)(1) of this Subpart, except days when there are no Phase IIA, IIB, or IIC activities. Positive pressure verification shall be done on a continuous basis. The differential pressure shall be easily verifiable by use of a leak free, rigid static pressure taps, static lines on the supply and return ducts and static lines originating in the regulated abatement work area, adjacent areas or downstream non-work areas.

(b) **HVAC Filters and Ducts.** Potentially contaminated HVAC filters in existing building/structure HVAC systems shall be handled and disposed of as asbestos contaminated waste material. The ducts and filter assembly shall be wet cleaned and HEPA-vacuumed where system air samples or bulk samples indicate asbestos contamination within the interior of the HVAC ducts. Existing building/structure HVAC system filters shall be treated as potentially contaminated for all friable OSHA Class I and Class II asbestos projects, and shall be removed and disposed of by the asbestos abatement contractor after the affected filters are identified by the building/structure owner s HVAC contractor or

maintenance personnel. The building owner or their agent shall supply appropriate replacement HVAC system filters to the asbestos abatement contractor during HVAC system filter removal and replacement.

(c) **Chimney Effects.** All boilers and other equipment exhausts within the regulated abatement work area shall be shut down and the burner/boiler/equipment accesses and openings shall be sealed until abatement is complete and satisfactory clearance air-sampling results have been achieved. If the boiler(s) 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 boilers or equipment and sealed airtight to eliminate potential chimney effects within the regulated abatement work area.

56-7.10 Regulated Abatement Work Area Pre-Cleaning.

(a) **Movable Objects.** Movable objects within the regulated abatement work area shall be precleaned using HEPA-filtered vacuum equipment and/or wet cleaning, and such objects shall be removed from the regulated abatement work area to an uncontaminated location. Upholstered furniture and drapes shall be HEPA-vacuumed twice before removal from the regulated abatement work area. Carpeting shall be HEPA-vacuumed twice and cleaned before removal from the regulated abatement work area. If disposed of as asbestos-contaminated waste material, cleaning of carpeting is not required. If carpeting is left in place, it shall be covered with three-eighths (3/8) inch thick plywood sheathing prior to required plasticizing.

(b) **Fixed Objects.** Fixed objects and other items which are to remain within the regulated abatement work area shall be precleaned using HEPA-filtered vacuum equipment and/or wet cleaning methods. Such objects and items shall be enclosed with two (2) layers of at least six (6) mil fire retardant plastic sheeting and sealed airtight with duct tape.

(c) **Precleaning.** The regulated abatement work area shall be cleaned using HEPA-filtered vacuum equipment or wet cleaning methods or both. Methods that raise dust, such as sweeping or vacuuming with non HEPA-filtered equipment shall be prohibited. ACM, PACM or asbestos material shall not be disturbed during precleaning. Precleaning is intended for preparation work, not gross cleaning of visible asbestos debris such as disturbed ACM, PACM or asbestos material on floors or other work area surfaces. Precleaning shall be performed in the following order.

(1) Locations in which critical barriers and isolation barriers are to be installed shall be cleaned first using a HEPA-filtered vacuum and wet cleaning methods before the barriers are installed. After the critical barriers and isolation barriers are installed, the negative air ventilation units shall be started. Once the negative air ventilation units are operational, the remainder of the precleaning shall take place and area plasticization shall begin.

NYC 9/11 Public Portal Document

56-7.11 Regulated Abatement Work Area Enclosure.

(a) **Critical Barriers.** Critical barriers shall be constructed to seal off all openings and penetrations to the regulated abatement work area including, but not limited to, operable windows and skylights, doorways and corridors (which shall not be used for passage), ducts, grills, diffusers, HVAC system seams, and any other penetrations to surfaces within the regulated abatement work area. Critical barriers shall be constructed using two (2) independent layers of at least six (6) mil fire-retardant plastic sheeting with each layer sealed separately with duct tape. Caulk and fire-retardant expandable foam may be used to seal small openings or penetrations. Doorways and corridors, which shall not be used for passage during the asbestos project, shall also be sealed.

(b) **Isolation Barriers.** Temporary hardwall barriers to complete the containment enclosure and establish the asbestos project regulated abatement work area shall be constructed using the following, framing, sheathing, sealing and plasticizing criteria:

(1) **Framing.** Isolation barrier partitions shall be constructed of wood or metal framing in all openings larger than 32 square feet, except that where any one dimension is one foot or less, framing is not required. Existing walls or framing may be used to support isolation barrier partition framing and sheathing.

(2) **Sheathing.** A plywood or oriented strand board (OSB) sheathing material of at least 3/8-inch thickness shall be fastened to the regulated abatement work area side of the barrier partition.

(3) **Sealing of Isolation Barriers.** The edges of the isolation barrier partition shall be sealed at the floor, ceiling, walls and fixtures using caulk, fire-retardant expandable foam or duct tape to form an airtight seal. The seams of the partition sheathing shall also be sealed airtight using these techniques.

(4) **Plasticizing Isolation Barriers.** The regulated abatement work area side of the isolation barrier partition shall be covered with two (2) layers of, at a minimum, six (6) mil fire-retardant plastic sheeting with staggered joints and sealed airtight.

(c) **Removal of Mounted Objects.** After critical barriers and isolation barriers are in place, mounted objects shall be removed and HEPA-vacuumed or wet wiped or both. Localized HEPA-filtered vacuum equipment shall be used during mounted object removal to reduce potential asbestos dispersal.

(d) **Elevator Shutdown or Isolation.** Elevators running through the regulated abatement work area shall be shut down except as noted in this Subdivision:

(1) **Isolation Detail.** In projects where the elevator cannot be shut down, the hoistway door frames shall be enclosed with nominal 2" x 4" framing, 16 inch on center, covered with 3/8-inch thickness plywood or OSB sheathing, and caulked or duct taped airtight at all seams. The enclosures

CITY_21MC100_003246559

NYC-WTC_000438634

shall be covered with two (2) seamless layers of at least six (6) mil plastic sheeting duct taped and sealed airtight. A final larger layer of at least six (6) mil plastic sheeting shall be duct taped and sealed airtight, but with slack, forming a larger perimeter diaphragm to sense air movement caused by elevator operation.

(2) **Elevator Shaft Ports.** Elevator shaft ports for pressure equalization when within the regulated abatement work area, shall be vented to the outside or non-work areas using oversized solid-walled ducts or chambers constructed with 3/8-inch thickness plywood or OSB sheathing over nominal 2" x 4" framing, 16 inch on center. The joints shall be caulked and the ducts or chambers shall be sealed with two (2) layers of at least six (6) mil fire-retardant plastic sheeting and duct tape. The first layer of plastic sheeting shall be attached to the ducts or chambers using spray adhesive. This system shall be subjected to and pass a negative pressure test daily.

(e) **Floor, Wall & Ceiling Plasticizing and Sealing.** All floor, wall and ceiling surfaces, except where abatement of ACM, PACM or asbestos material shall be performed on those specific surfaces, shall be covered with two (2) layers of, at a minimum, six (6) mil fire-retardant plastic sheeting. The floor shall be plasticized first, and its plastic sheeting shall extend up the walls a distance of at least twelve (12) inches on all sides. The walls shall then be plasticized by applying plastic sheeting from the ceiling to the floor, overlapping the floor sheeting by at least twelve (12) inches. Next, the ceiling shall be plasticized overlapping the walls by at least twelve (12) inches, to form a secure airtight seam. This process shall be repeated for the second layer of plastic sheeting for the floor, walls and ceiling. All seams within a layer shall be separated by a distance of at least six (6) feet and sealed airtight with duct tape. All seams between layers shall be staggered at least two (2) feet.

(f) **Barrier/Plasticizing Exemptions.**

(1) **Negative Pressure Tent Regulated Abatement Work Area Enclosure.** An alternate isolation method may be used where preparation of the entire room/space is either unfeasible or not necessary to adequately access all impacted ACM, PACM or asbestos material.

(i) **Where Allowed.** Negative pressure tent enclosures are allowed to be utilized for gross abatement of any quantity interior and exterior non-friable ACM or asbestos material, glovebag abatement of any quantity friable TSI, or gross abatement of Minor and Small quantities of friable ACM, PACM or asbestos material. For tent enclosures with gross abatement of friable materials, contiguous decontamination system enclosures shall be constructed, maintained and utilized as per this Part.

(a) **Multiple Minor Size Regulated Abatement Work Areas.** If the small or large asbestos project consists of multiple negative pressure tent regulated abatement work area

enclosures with minor quantities of ACM to be abated within each tent enclosure, these tent enclosures shall be constructed as per this subpart, including attached airlock if remote decontamination systems are allowed and utilized for the asbestos project.

(ii) **Tent Construction.**

(a) Tents with greater than 20 square feet of floor space, or tents that are scheduled for gross removal of friable ACM, PACM, or asbestos material, shall be constructed of two (2) layers of six (6) mil fire-retardant plastic sheeting and shall include walls, ceiling and a floor (except for portions of walls, floors and ceilings that are the removal surface) with double-folded seams. Seams shall be duct taped airtight and then duct taped flush with the adjacent tent wall.

(b) Tents with 20 square feet or less of floor space and no gross removal of friable ACM, PACM or asbestos material, shall be constructed of one (1) layer six (6) mil fire-retardant plastic sheeting and shall include walls, ceiling and a floor (except for portions of walls, floors and ceilings that are the removal surface) with double-folded seams. Seams shall be duct taped airtight and then duct taped flush with the adjacent tent wall.

(c) Tents or tent-like structures or enclosures shall be adequately supported and reinforced to withstand local environmental conditions and the negative pressures developed within them.

(d) **Airlock.** An airlock shall be constructed as per section 56-7.5(b)(9), at the entrance to each tent that utilizes remote decontamination system facilities. Each tent and airlock shall be cordoned off twenty-five (25) feet from it perimeter, or the interior space/room where the tent and airlock is located shall be secured from non-certified personnel or public access, and signage shall be installed as per section 56-7.4(c). Openings within the cordoned off area or space/room (except access entrance) shall be covered with two (2) layers of six (6) mil fire retardant polyethylene in conformance with Section 56-7.11(a).

(iii) **Negative Air.** Manometers consistent with the requirements of section 56-7.8(a)(4), are required for negative pressure tent enclosure regulated abatement work areas with OSHA Class I abatement. Negative air shall be maintained at four (4) air changes per hour for non-friable and glovebag abatement tent enclosure work areas. Eight (8) air changes shall be maintained for friable

gross removal tent enclosure work areas. If a HEPA-filtered vacuum is used for a Minor size abatement tent enclosure work area to maintain the required air changes, after final cleaning is completed 20 minutes shall elapse, then ventilation may be stopped, clearance air samples collected, and the tent sealed until results are read. If air sample results are unacceptable, ventilation shall be reestablished, the area recleaned and new samples taken.

(2) **Fire-Retardant Spray Plastic.** Fire-retardant spray plastic may be used in lieu of two (2) layers of six (6) mil plastic sheeting as required by 56-7.11(e), under the following conditions:

(i) Critical barriers are installed per section 56-7.11(a) of this Part.

(ii) The fire-retardant spray plastic is used, applied, maintained and removed in accordance with the manufacturer's detailed procedures by persons who have been trained by the manufacturer or others authorized to perform such training. Proof of appropriate training shall be located at the work site and shall be produced upon verbal request of the Commissioner or his or her duly authorized representative.

(iii) Application shall be made to result in a dry thickness of not less than six (6) mils.

(3) **Special Projects.** See Subpart 56-11 regarding work area preparation requirements for special projects. These projects include exterior non-friable ACM roofing, siding, caulking and glazing abatement, abandoned intact pipe/duct/conduit wrap and cut abatement, flooring and mastic abatement, pre-demolition abatement, demolition with asbestos in place, in-plant operations abatement, emergency project abatement and Minor size project abatement.

(4) **Removal of Ceilings and Components.** Suspended ceiling and components that exist below friable ACM or PACM material, and that are not themselves ACM or PACM, shall remain in place until the remainder of the regulated abatement work area has been plasticized, negative air established, and personal and waste decontamination enclosures have been constructed. The ceiling tiles and components shall then be removed and disposed of as asbestos waste or decontaminated if possible. This type of removal must be done prior to commencement of Phase II B abatement, but after the remaining regulated abatement work area preparation has been completed.

(5) **Exits.** Emergency and fire exits from the regulated abatement work area shall be maintained or alternate exits shall be established and appropriately signed according to all applicable codes. Temporary hardwall barriers are not required at emergency and fire exit locations.

(g) **Toilet Facilities.** Adequate toilet facilities shall be readily accessible to the

NYC 9/11 Public Portal Document

personal decontamination enclosure.

SUBPART 56-8
PHASE II B ASBESTOS ABATEMENT

56-8.1 Air Sampling Requirements.

(a) **Personal Air Sampling.** Air sampling shall be performed in the worker's breathing zone, by the asbestos contractor for his personnel, as required by current OSHA regulations.

(b) **Daily Air Sampling.** Project air sampling shall be conducted daily for the full workshift for Large projects. If more than one daily workshift is required to accomplish the work, air sampling shall be performed on each workshift. Air sampling is not required on days when there are no Phase II B activities.

(1) **Number And Location Of Samples – Large Asbestos Projects.** A minimum of five (5) samples shall be taken on a daily basis. The locations of samples to be taken are the same as specified for Phase IIA. (See Section 56-7.1 and Table 2 within Section 56-4.9)

(2) **Work Stoppage Criteria During Phase II B Abatement Procedures.** If air samples collected outside the regulated abatement work area, indicate airborne fiber concentrations at or above 0.01 fibers per cubic centimeter, or the established background level, whichever is greater, work shall stop immediately for inspection and repair of barriers and negative air ventilation systems as necessary. Clean up of surfaces outside of the regulated abatement work area using HEPA-vacuums and wet-cleaning methods shall be performed prior to resumption of abatement activities. A summary of clean up activities and the results of barrier inspections including any necessary repairs, shall be documented in the supervisor's daily project log. Work methods shall be altered accordingly to reduce fiber concentrations to acceptable levels.

(c) **Exemption from Daily Air Sampling.** Daily air sampling is not required on exterior asbestos projects with abatement of non-friable ACM roofing, siding, caulking or glazing compound, tars, sealers, coatings or other NOB ACMs, unless the ACM is rendered friable during removal or debris falls inside the building/structure.

56-8.2 Access to and Maintenance of Decontamination Systems and Regulated Abatement Work Area Enclosures.

(a) **Access.** Entry to the personal and waste decontamination system enclosures shall be restricted to the asbestos contractors involved with the asbestos project, appropriately certified employees of the asbestos contractors, authorized visitors, police, fire and other public safety personnel.

(b) **Waiting Periods.** Prior to beginning Phase IIB asbestos abatement work and upon completion of the construction of all regulated abatement work area enclosures and decontamination system enclosures, including establishment of the negative air system, a four hour (4) waiting period with negative air units operating shall be required to insure that all barriers shall remain intact and secured to the walls, ceilings, floors and fixtures.

(c) **Waiting Period Exemption.** The four (4) hour waiting period may be eliminated for exterior work where negative air is not required.

(d) **Inspection of Barriers.** All barriers shall be inspected by the asbestos supervisor at least twice daily, before the start of and following the completion of the day's abatement activities. Inspections are also required on days when there is no Phase II work or support activities scheduled. Inspections and observations shall be documented by the asbestos abatement contractor's supervisor in a daily project log.

(e) **Repairs to Barriers and Enclosures .** Damage and defects in the barriers and enclosures shall be repaired immediately upon discovery and shall be documented by the asbestos abatement contractor's supervisor in a daily project log, prior to resumption of abatement activities.

(f) **Testing of Barriers and Enclosures.** Smoke tube testing to ensure the effectiveness of all isolation barriers, personal decontamination system enclosures, waste decontamination system enclosures and regulated abatement work area enclosures shall be performed prior to the beginning of abatement activities and at least once a day thereafter until satisfactory clearance air sampling results have been obtained. Negative air pressure ventilation units shall be in operation during this testing. Testing of barriers and enclosures is not required on days when there are no Phase IIB or cleaning activities scheduled. Test results, observations and any modifications shall be documented by the asbestos abatement contractor's supervisor in a daily project log.

(g) **Loss of Enclosure Integrity.** If visible emissions or water leaks are observed outside of the regulated abatement work area, or if a glovebag, tent or enclosure of any type fails or loses its integrity, work shall be stopped and the following procedures shall be followed:

(1) **Isolation and Critical Barrier Construction.** Isolation and critical barriers shall be constructed as follows:

(i) **Isolate HVAC Systems.** The HVAC systems shall be shut down immediately and all openings shall be sealed with at least six (6) mil fire retardant plastic sheeting and duct tape.

(ii) **Isolate Uncontaminated Areas.** Passageways to uncontaminated areas of the building or structure shall be sealed with at least six (6)

CITY_21MC100_003246565

NYC-WTC_000438640

mil fire retardant plastic sheeting and duct tape.

(iii) **Install Critical Barriers.** Critical barriers within 25 feet of the regulated abatement work area shall be installed as per Section 56-7.11 of this Part.

(2) **Negative Air Pressure Equipment Ventilation.** Negative air pressure equipment ventilation that complies with Section 56-7.8 of this Part shall be installed and utilized.

(3) **Cleanup.** Cleanup shall be accomplished as follows:

(i) **Method, Tools and Equipment.** All accumulations of asbestos waste material shall be containerized and removed. Non-metal shovels and HEPA-vacuums may be used to pick up or move waste except in the vicinity of isolation barriers which might be breached. The areas around isolation barriers shall be cleaned utilizing rubber or plastic dustpans, squeegees or shovels. HEPA-vacuums shall be used to clean all surfaces after gross cleanup.

(ii) **Cleanup of Surfaces.** All surfaces in the regulated abatement work area shall be wet-cleaned using rags, mops and sponges.

(iii) **Second Cleaning.** After the first cleaning, at least twelve (12) hours shall be allowed for asbestos to settle. Thereafter, all objects and surfaces in the regulated abatement work area shall be HEPA-vacuumed and wet-cleaned. All windows, doors, HVAC system vents and all other openings shall remain sealed.

(4) **Removal of Contaminated Equipment and Waste.** Contaminated equipment and all containerized waste shall be removed from the regulated abatement work area.

(5) **Clearance Air Sampling.** Clearance air sampling shall be conducted, as per the schedule for air sampling and analysis.

(6) **Isolation Barrier Removal.** Isolation barriers shall be removed only after satisfactory clearance air sampling results have been achieved.

(h) **Daily Cleaning of Enclosures.** The asbestos abatement contractor shall HEPA-vacuum or wet-clean the waste decontamination system enclosures, the personal decontamination system enclosures, and airlocks when remote decontamination units are used, daily during Phase II A through C abatement activities. This cleaning shall take place at the end of each work shift and the asbestos abatement contractor's supervisor shall document it in the daily project log.

CITY_21MC100_003246566

NYC-WTC_000438641

NYC 9/11 Public Portal Document

56-8.3 Regulated Abatement Work Area Entry and Exit Procedures.

(a) **Procedures.** The following procedures shall be followed throughout the asbestos abatement project until satisfactory clearance air-sampling results have been achieved:

(1) **Entry to the Work Area.** All persons shall enter the regulated abatement work area through the personal decontamination system enclosure, or through an airlock when used with an approved remote decontamination unit.

(i) **Entry/Exit Log.** All persons who enter the regulated abatement work area or enclosure shall sign the entry/exit log, located in the clean room, upon every entry and exit.

(ii) **Knowledge of Procedures.** All persons, before entering the regulated abatement work area or enclosure, shall read and be familiar with all posted regulations, personal protection requirements, including regulated abatement work area entry and exit procedures and emergency procedures. The entry/exit log headings shall indicate, and the signatures shall be used to acknowledge, that these have been reviewed and understood by all persons prior to entry.

(iii) **Personal Protective Equipment.** All persons shall proceed first to the clean room, remove all street clothing, store these items in lockers and don personal protective equipment as appropriate for the abatement work area. Two (2) layers of protective clothing shall be donned for entry to regulated abatement work areas from remote personal decontamination systems. All authorized visitors shall also don NIOSH-approved respiratory protection for work areas with negative air established. Respirators and personal protective equipment shall be utilized by each authorized visitor for each separate entry into the regulated abatement work area. Respirators shall be inspected prior to each use and tested for proper seal using quantitative or qualitative fit checks.

(iv) **Tools.** Persons wearing designated personal protective equipment shall proceed from the clean room through the shower room to the equipment room, where necessary tools are collected and any additional clothing shall be donned, before entry into the regulated abatement work area.

(2) **Exit From the Work Area.** All persons shall exit the regulated abatement work area through the personal decontamination system enclosure, or

CITY_21MC100_003246567

NYC-WTC_000438642

through an airlock when used with an approved remote decontamination unit.

(i) **Removal of Gross Contamination.** Before leaving the regulated abatement work area, all persons shall remove gross contamination from the outside of respirators and protective clothing by HEPA-vacuuming, or wet cleaning.

(ii) **Exit.** All persons shall exit the regulated abatement work area through the personal decontamination system enclosure, or through an airlock when used with an approved remote decontamination unit, except in case of an emergency, when an emergency exit or other means of escape may be used.

(iii) Regulated Abatement Work Area Exit Procedures Utilizing Remote Decontamination Systems). If at any time a worker has to travel through an uncontaminated area to access the personal or waste decontamination enclosure system, the worker shall HEPA-vacuum and/or wet wipe his/her outer protective clothing while in the regulated abatement work area, then proceed into the airlock where he/she shall remove his/her outer clothing and don a clean set of protective clothing. He/she may then proceed to the personal or waste decontamination enclosure along a designated pathway. The walkway from the regulated abatement work area to the decontamination system shall be cordoned off to delineate it from public areas.

(iv) **Removal of Personal Protective Equipment.** Workers shall proceed to the equipment room where coveralls, head covering, foot covering and gloves shall be removed. Disposable clothing shall be deposited into labeled containers for disposal. Reusable contaminated clothing, footwear, head covering and gloves shall be stored in the equipment room when not being used in the regulated abatement work area. Respirators shall not be removed during this process.

(v) **Showering.** Still wearing respirators, persons shall proceed to the shower area, clean the outside of the respirator and the exposed face area under running water prior to removal of the respirator, and fully and vigorously shower and shampoo to remove residual asbestos contamination. Respirators shall be washed thoroughly with soap and water. Some types of respirators shall require slight modifications to these procedures. An airline respirator with a HEPA-filtered disconnect protection shall be disconnected in the equipment room and worn into the shower. A powered air-purifying respirator facepiece shall be disconnected from the filter/power pack assembly prior to entering the shower.

(vi) **Clean Room.** After showering and drying, all persons shall proceed to the clean room and shall don either street clothing if exiting the enclosure or clean personal protective equipment if returning to another regulated abatement work area.

56-8.4 Handling and Removal Procedures.

(a) **Glovebag Procedures.** Glovebags are allowed to be utilized for abatement of pipe or duct insulation within negative pressurized regulated abatement work area enclosures. Glovebags may only be used on piping and ducts up to 150 degrees Fahrenheit. The following procedures must be followed for glovebag use:

(1) **Size.** When abating pipe or duct insulation, the pipe or duct insulation diameter worked shall not exceed one half the bag working length.

(2) **Sealing.** Duct tape shall be placed securely around the area of abatement to form a smooth seal. The glovebag shall then be secured to the duct tape and sealed airtight.

(3) **Seal Testing.** After placement, each glovebag shall be subjected to and pass a smoke test as follows:

(i) Smoke testing should not be completed using a positive pressure test. The glovebag, once secured in place, should be placed under negative pressure, utilizing the HEPA-vacuum, and a smoke tube should be aspirated to direct smoke at all seals and seams from outside the glovebag.

(ii) If there are any leaks, they will be detected by the smoke entering the bag. All leaks shall be duct taped airtight.

(4) **Surface Irregularities.** If material adjacent to the work section is damaged, or if it terminates, is jointed or contains an irregularity adjacent to the work section, the material shall be wrapped in at least six (6) mil fire-retardant plastic sheeting and sealed airtight with duct tape.

(5) **Post-Stripping Wetting.** After the asbestos material has been stripped, the surface from which it has been removed shall be wetted with amended water and scrubbed with a brush or abrasive pad to remove all visible asbestos material. The surfaces from which it has been removed, the interior of the bag, the affected area and the tools shall then be thoroughly wetted with amended water.

(6) **Sealing of Pipe Ends.** When abating pipe insulation, any pipe insulation ends created shall be sealed with wettable cloth or otherwise encapsulated with a non-asbestos product.

(7) **Collapsing of the Glovebag.** A HEPA-vacuum shall be used to collapse the glovebag.

(8) **Tool Segregation.** With the glovebag collapsed and the asbestos

material in the bottom of the bag, twist the bag several times and duct tape the twist to seal that section. The tool pouch shall be separated from the bag by twisting it several times, taping the twist and thus sealing the pouch. Alternately, the tools may be segregated using one or both glove inserts and pulling the tools through, thus turning the glove inside out. The glove(s) shall then be twisted several times, duct taped and thus sealed.

(9) **Sealing the Contaminated Items.** The glovebag shall be tied off to contain the asbestos material prior to the glovebag being detached from the area where the asbestos was removed within the bag.

(10) **Containerizing the Glovebag.** The sealed glovebag shall be placed into at least a six (6) mil plastic bag, sealed airtight and transferred from the regulated abatement work area as per Section 56-8.9, for disposal as asbestos waste.

(11) **Failure.** The requirements of Section 56-8.2(g) shall be complied with in the event of glovebag losing seal or integrity.

(b) **Dry Removal or Dry Disturbance.** No dry removal or dry disturbance of asbestos material shall be permitted.

(c) **Wetting Requirements.** The asbestos material shall be adequately wetted with amended water. Sufficient time shall be allowed for penetration to occur prior to abatement activities. All friable asbestos materials shall be thoroughly saturated. All non-hygroscopic asbestos material shall be thoroughly wetted, prior to and during abatement.

(d) **Asbestos Abatement.** Only one type of asbestos containing material shall be abated at a time within an enclosure. Prior to the abatement of another type of asbestos containing material, the area shall be cleaned. (See Section 8.6 - Multiple Abatement within a Single Regulated Abatement Work Area)

(e) **Handling.** ACM, PACM and asbestos material, on detachment from the substrate, shall be directly bagged or dropped into a flexible catch basin and subsequently bagged or containerized. Materials removed in negative pressure tent enclosure work areas shall be bagged or containerized immediately upon detachment. Additional amended water shall be added as necessary to the waste bags/containers to ensure that all waste remains adequately wet within the bag/container.

(f) **Sealing of Surfaces and Edges.** Where ACM, PACM or asbestos material was removed, any exposed edges of material that remain shall be sealed with wettable cloth or otherwise encapsulated with a suitable non-asbestos material, prior to commencement of final cleaning and collection of clearance air samples.

(g) **Exterior Chutes.** For asbestos material lowered or conveyed greater than ten (10) feet in height, dust tight, enclosed, inclined chutes shall be used as follows:

(1) The upper end of the chute shall be furnished with a hinged lid to be closed when a chute is not being used,

(2) The chute shall be dust tight along its lateral perimeter and at the terminal connection to a dumpster or container with a hard wall and a hard top.

(h) **Handling Large Components.** Large components, removed intact, shall be wrapped in two (2) layers of at least six (6) mil plastic sheeting secured and made air tight with duct tape.

(i) **Sharp-Edge Components**. Asbestos waste material with sharp edged components that may tear or damage the plastic bags or sheeting shall be placed in a poly lined hard wall container or a rip proof bag then double bagged or wrapped and sealed airtight.

(j) **Loss of Integrity on Asbestos Projects.** If a regulated abatement work area enclosure of any type, including a negative pressure tent enclosure, fails or loses its integrity, the required procedures of Section 56-8.2(g) shall be followed.

56-8.5 Waste Clean-Up Procedures. The following procedures shall be required for Phase II B Large and Small projects.

(a) **Tools and Equipment.** All accumulations of asbestos waste material shall be adequately wetted and containerized using HEPA-vacuums or rubber or plastic dustpans, squeegees or shovels. Metal shovels shall not be used to pick up or move waste. HEPA-vacuums shall be used to clean all surfaces after gross cleanup.

(b) **Frequency for Containerizing.** During Phase II B, all waste generated shall be bagged, wrapped or containerized immediately upon removal. Cleanup of accumulations of loose debris/waste material shall be performed whenever enough loose debris/waste material has been removed to fill a single leak-tight container appropriate for the type of ACM being removed. Cleanup of all remaining waste generated shall be performed at least once prior to close of each workshift. All waste material shall be kept adequately wet at all times.

(c) **Frequency for Dust or Debris.** Accumulations of dust or debris shall be cleaned off all surfaces on a daily basis using HEPA-vacuum or wet-cleaning methods or both.

(d) **Frequency for Enclosures.** Decontamination system enclosures shall be HEPA-vacuumed or wet-cleaned or both at the end of each workshift.

(e) **Waste Housekeeping.** The regulated abatement work area, holding area, waste trailer and hardtop dumpster areas must be kept free of uncontainerized asbestos waste/debris at all times.

56-8.6 Multiple Abatement within a Single Regulated Abatement Work Area.

(a) **Simultaneous Abatement.** Simultaneous or concurrent abatement of multiple types of ACM within a single regulated abatement work area shall not be allowed, unless the multiple types of ACM are part of the same system (e.g. floor tile/cove base and mastics, or ceiling/wall tile and mastic). Simultaneous removals are allowed on a project as long as they are within different regulated abatement work areas.

(b) **Requirements for Sequential Abatement.** When multiple types of abatement work are done in a common regulated abatement work area or enclosure, a sequential order of abatement is required as shown below.

(1) **Initial Plasticizing.** Initial plasticizing of the containment area shall be as required for the most stringent case of removal.

(2) **Sequential Removal.** Sequential removal shall allow for only one type of removal of ACM at a time in a sequential order within the work area until that type of material is completely removed. Thereafter, another type of ACM can be removed within the same work area. Relief from plasticizing is for the surfaces to be abated only at the time of that specific material abatement. Other surfaces shall be plasticized as the material being abated dictate, except as noted below.

(i) **Order of Sequential Abatement.** The following sequence of abatement within a work area shall begin at the ceiling or upper level and progress one material at a time down to the floor and from most friable material to least friable material.

(ii) **Example:**

(a) First. All ceiling fireproofing, ceiling plaster or similar ceiling OSHA Class I friable material shall be completely abated so that no visible exposed ACM, PACM or asbestos material remains. Then the friable mechanical/tank insulation, isolation/ vibration damper material and thermal pipe, ducts, pipe fitting insulation, mudded firebrick, or similar OSHA Class I or Class II friable material shall be completely abated so that no visible exposed material remnants remain. Glovebags may be used. After all friable ACM has been abated, the area shall be cleaned of all debris using HEPA vacuuming and wet wiping.

(b) Second. OSHA Class II non-friable materials shall be abated. If other areas were abated, no new plasticization shall be required. Ceiling and wall tiles, transite, interior window glazing, expansion joint, millboard and other NESHAP Category I and II non-friable ACM shall be abated so that no visible exposed material remnants remain and the area shall be cleaned of all debris using HEPA vacuuming and wet wiping.

(c) Last. OSHA Class II non-friable flooring abatement shall be

last. Non-friable ACM flooring materials and ACM mastic shall be abated so that no visible exposed material remnants remain and the area shall be cleaned of all debris using HEPA vacuuming and wet wiping. If beadblaster or a similar abrasive type of abatement method is used, full work area preparation, including establishment of negative pressure filtration systems, shall be required and this abatement may be done as one of the first types of abatement and then the flooring area abated shall be re-plasticized with a double-layer of 6-mil fire retardant plastic sheeting, to be utilized as a dropcloth during the remaining abatement.

(iii) **Temporary Walls.** New temporary hardwalls used to separate an enclosed regulated abatement work area into smaller regulated abatement work area enclosures shall be constructed as per Section ICR 56-7.11(b). Existing columns, I beams and interior walls may be used to support or to act as part of the new containment walls provided that the existing walls, columns, and I beams to which these temporary walls are to be attached or used shall be completely abated prior to the erection of these new containment walls to allow this attachment. Caulk, fire-retardant expandable foam or duct tape shall be used to form an airtight seal for these partitions.

(a) **Airlock.** Each newly enclosed regulated abatement work area shall have an attached airlock as defined in Section 56-2.1, and the airlock shall be constructed at the enclosure entrance, as per section 56-7.5(b)(9). Each enclosure and airlock shall be cordoned off twenty-five (25) feet from its perimeter. Critical openings within the cordoned off area shall be covered with two (2) layers of six (6) mil fire retardant polyethylene in conformance to Section 56-7.11(a).

(iv) **Intermediate completions.** On completion of each type of asbestos abatement within these work area enclosures, a complete single clean of all surfaces in the entire area – ceiling, walls and floors - shall be performed by HEPA vacuuming and wet wiping. No final clearance air samples shall be required for each individual type of material abatement, until the last type of ACM, PACM or asbestos material is abated. Each intermediate completion shall include a visual inspection for completeness by the supervisor. Results of the visual inspection and time of intermediate completion shall be documented by the supervisor in the daily project log.

(v) **Final Required Cleaning.** A complete single clean of all surfaces in the entire area – ceiling, walls and floors, followed by a visual inspection as described in Subpart 56-9 shall be performed by

HEPA vacuuming and wet wiping, after all abatement is complete.

(vi) **Final Clearance Air Samples.** After the final cleaning and visual inspection requirements and are completed and the final settling/drying period is observed, prior to dismantling the enclosure, Phase IIC final clearance air samples shall be collected and satisfactory clearance air results obtained as per Section 56-9.2 of this Part.

56-8.7 Encapsulation Procedures. All material used for repair or encapsulation of asbestos material shall have a flame spread rating, fireproofing and smoke characteristics similar to the material being repaired or encapsulated. Also, the encapsulant shall not alter the insulating characteristics of the material subject to encapsulation, and the encapsulant shall not add excess weight to the material increasing the potential that the material may delaminate from itself (cohesion failure), or from its substrate (adhesion failure). Encapsulation of asbestos material shall be conducted in accordance with the following:

(a) **Regulated Abatement Work Area Preparation.** The regulated abatement work area shall be pre-cleaned, isolated and negative air established in accordance with Subpart 56-7 of this Part.

(b) **Repair Materials.** Damaged and missing areas of existing materials shall be repaired with non-asbestos material. The material shall adhere to existing surfaces and provide a base for application of encapsulating agents.

(c) **Asbestos Material Removal.** Loose or hanging ACM, PACM or asbestos material shall be removed in accordance with the requirements of Section 8.4 of this Subpart.

(d) **Testing of Encapsulants.** Encapsulants shall be field tested prior to use by applying each to a small area to determine suitability for the material to be encapsulated. Testing shall be conducted only after the isolation barriers are in place and negative air has been established.

(e) **Bridging Encapsulants.**

(1) **Thickness Requirements.** Bridging encapsulants shall be applied to provide the manufacturer's specified minimum dry-film thickness over sprayed asbestos surfaces.

(2) **Color Requirement.** When using bridging encapsulant, a different color for each coat shall be used.

(f) **Latex Paint.** Latex paint shall not be used as a bridging encapsulant. It shall be considered a dilute lockdown encapsulating agent and used only as a coating for lockdown purposes for surfaces during cleanup procedures as per Subpart 56-9.

CITY_21MC100_003246574

NYC-WTC_000438649

(g) **Penetrating Encapsulants.**

(1) **Penetration Requirements.** Penetrating encapsulants shall be applied and penetrate existing asbestos material to the substrate.

(2) **Testing of Penetration.** During treatment with a penetrating encapsulant, selected random core samples of asbestos material shall be removed and checked to verify full depth of penetration.

(3) **Color Requirement.** Each coat of penetrating encapsulant shall be color coded as per manufacturer's recommendations, if any, except for the prohibition of pigment use.

(h) **Methods of Application.** Encapsulants shall be applied using airless spray equipment as follows:

(1) **Spraying Pressure.** Spraying shall be performed at the lowest pressure range possible to minimize asbestos fiber release.

(2) **Spray Tip.** The optimum spray tip shall be chosen on the basis of the viscosity and percent solids of the encapsulant. The cone projection of the tip shall be as specified by the manufacturer.

(3) **Subsequent Coats.** Each subsequent coat of encapsulant shall be applied at a 90-degree angle to the preceding coat application or per manufacturer's specifications.

(4) **Encapsulant Solvent or Vehicle.** The encapsulant solvent or vehicle shall not be or contain a volatile material. It shall not release hazardous air pollutants, as defined by NYS DEC 6 NYCRR 200.1(ag), into the air when applied or during curing.

(i) **Encapsulant Fire-Resistance Properties.** If the asbestos material has been used for fire retardation or protection of structural members or both, the encapsulant material used shall have a flame spread rating, fireproofing and smoke characteristics similar to the material being repaired or encapsulated.

(j) **Marking or Labeling.** Encapsulated ACM, PACM, or asbestos material shall be conspicuously marked or labeled in order to warn persons of its presence.

(k) **Cleanup.** Waste cleanup shall be in accordance with Section 56-8.5.

(l) **Final Cleaning and Clearance Air Sampling.** Final cleaning and clearance air sampling shall be in accordance with Subpart 56-9.

56-8.8 Asbestos Material Encasement/Enclosure Procedures. The encasement/enclosure of existing ACM, PACM or asbestos material shall be conducted in accordance with the following:

(a) **Regulated Abatement Work Area Preparation.** The regulated abatement work area shall be pre-cleaned, isolated and negative air established in accordance with Subpart 56-7 of this Part.

(b) **Use of Amended Water.** Areas that may be disturbed during the installation of hangers or other support and framing materials for the enclosure shall be sprayed with amended water. These areas shall be kept damp to reduce airborne asbestos concentrations.

(c) **Loose and Hanging Asbestos Material.** Loose or hanging ACM, PACM or asbestos material shall be removed in accordance with the requirements of Section 8.4 of this Subpart.

(d) **Repair of Fireproofing and Thermal Insulation.** After installation of hangers, brackets or other enclosure supports, and before installation of encasement/enclosure sheathing material, damaged areas of fireproofing and thermal insulation shall be repaired using a non-asbestos material as per Section 56-7.2 of this Part. Surfaces shall be prepared and replacement material applied in accordance with manufacturer's recommendation.

(e) **Integrity of Installation.** Encasements/enclosures shall be designed to be permanent and shall be constructed to provide an airtight barrier. The encasement/enclosure sheathing material shall be impact resistant and shall be installed with adequate supports, reinforced to withstand local environmental conditions, casual contact and any internal pressures developed within the encasement/enclosure structure.

(f) **Utility Maintenance.** Utilities shall be lowered as necessary and reinstalled in a manner which allows proper utilization, and does not disturb the integrity of the encasements/enclosures. Utility maintenance shall not require the encasements/enclosures to be opened or disturbed.

(g) **Ducts.** Ducts insulated with ACM, PACM or asbestos material shall not be encased or enclosed.

(h) **Air Plenums.** ACM, PACM or asbestos material-insulated air plenums, which are not readily accessible for inspection, shall not be encased or enclosed.

(i) **Marking or Labeling.** Encased asbestos material shall be conspicuously marked or labeled in order to warn persons of its presence.

(j) **Cleanup.** Waste cleanup shall be in accordance with Subpart 56-8.5.

(k) **Final Cleaning and Clearance Air Sampling.** Final cleaning and clearance air sampling shall be in accordance with Subpart 56-9.

56-8.9 Equipment and Waste Container Decontamination and Removal Procedures.

NYC 9/11 Public Portal Document

(a) **Timing of Waste Transfer Activities.** During Phase II B of the project, after ACM, PACM, asbestos material and debris is bagged, wrapped, or containerized, waste transfer from the regulated abatement work area as per this Section, shall occur when no gross removal is taking place.

(b) **First Cleaning.** External surfaces of contaminated bags/containers and equipment shall be cleaned by wet wiping or HEPA-vacuuming or both in the regulated abatement work area before moving such items into the waste decontamination system washroom by persons assigned to this duty.

(1) **Exception.** Minor size regulated abatement work areas that do not have a contiguous washroom, are allowed to have all waste bag/container cleaning with additional containerization completed within that work area. The waste generated shall be immediately bagged/containerized within the regulated abatement work area. Once the abatement and cleaning is complete within the regulated abatement work area, each waste bag/container shall be wet-wiped, placed in a second bag/container and sealed airtight (except for drums which shall be washed and dried only), then moved to the airlock. The waste bags/container shall then be transferred to the secured waste trailer/dumpster for disposal by appropriate legal method.

(c) **Washroom Procedures**. All bagged/containerized contaminated items and asbestos waste shall be passed into the washroom during waste transfer operations. Workers from uncontaminated areas in full protective clothing and appropriate respiratory protection shall enter the washroom and place the appropriate supply of specified clean waste bags/containers within the washroom. One team of workers shall be stationed in the washroom for bag/container cleaning and additional containerization as necessary. The workers shall ensure all curtained doorways are closed during the waste container transfer procedure and that all bags/containers are sealed properly before removing for transport and disposal.

(1) **Additional Cleaning.** Once in the waste decontamination system, external surfaces of the contaminated bags/containers and equipment shall be cleaned an additional time by wet cleaning in the washroom.

(2) **Additional Containerizing.** Once the additional cleaning is completed and the cleaned bags/containers of asbestos waste are dried of any excessive pooled or beaded liquid, they shall be placed in a clean uncontaminated plastic bag or wrapped in sheeting (except for drums which shall be washed and dried only), as the items physical characteristics demand, and sealed airtight. When the bags/containers are moved to the holding area, lockable trailer, or lockable hardtop dumpster, the bags/containers shall be appropriately labeled with the date they are moved from the waste decontamination system marked on the container in waterproof markings. Caution labels as per the requirements of current EPA NESHAP regulations shall also be affixed at this time.

CITY_21MC100_003246577

NYC-WTC_000438652

(3) **Removal to Airlock.** The equipment and cleaned/containerized waste shall be moved into the airlock that leads from the washroom. The washroom workers shall not enter this airlock or the regulated abatement work area until waste transfer is finished for that transfer period. Once waste transfer is complete, the washroom workers shall proceed to the regulated abatement work area and then to the personal decontamination system, or immediately to the remote personal decontamination system.

(d) Removal to Holding Area, Lockable Trailer Or Lockable Hard Top Dumpster. Bags/containers and equipment shall be moved from the airlock and into the holding area, lockable trailer or lockable hardtop dumpster by persons attired in clean personal protective equipment who have entered from uncontaminated areas. Asbestos waste may stay in the holding area no longer than one week or in a lockable trailer or lockable hard top dumpster until filled but in no instance longer than ten calendar days after successful completion of Phase II C for all regulated abatement work areas at the site.

(e) **Cart Usage and Cleaning**. The cleaned containers of asbestos waste and equipment shall not be stored in the clean room but shall be placed in holding carts adjacent to but outside of the clean room, after passing through the decontamination unit. The carts may be used for temporary storage adjacent to the clean room until the end of the work shift.

(f) **Holding Carts.** The carts shall be watertight and have doors or tops that shall be closed and secured. The carts shall be HEPA-vacuumed and wet cleaned at least once a day.

(g) **Trailers and Dumpsters.** Waste transport trailers and dumpsters used to transport RACM waste, shall be hard topped, lockable and lined with two (2) layers of six (6) mil fire-retardant polyethylene. Prior to transport from the work site, all waste trailers and dumpsters shall be sealed to ensure air, dust and watertight integrity, utilizing six (6) mil plastic, duct tape and expandable foam sealant as necessary. The waste transporter is responsible for cleaning/decontamination of waste trailers or dumpsters, once the waste has been properly disposed of at the appropriately licensed and permitted landfill facility.

(h) **Enclosure Security.** The entrance to and exit from the waste decontamination system enclosure(s) shall be secured to prevent unauthorized entry. Signs per Section 56-7.4 shall be posted at the entrance to the decontamination units.

(i) **Assigned Persons For Small Asbestos Projects.** Where only one egress exists and the shower is used as a waste removal washroom, workers shall be stationed in each area/room of the decontamination system enclosure to transfer/process the contaminated bags/containers and equipment through adjacent areas/rooms as per this section. These workers shall not cross the airlocks into the adjacent areas/rooms until waste transfer is finished for that transfer period and all other workers have decontaminated as per these regulations. The clean room/holding area workers shall enter from uncontaminated areas attired in clean personal protective equipment.

NYC 9/11 Public Portal Document

SUBPART 56-9

PHASE II C FINAL CLEANING AND CLEARANCE PROCEDURES

56-9.1 Final Cleaning Procedures. The following cleanup procedures shall be required after completion of Phase II B activities:

(a) **Continuous Negative Pressure Ventilation.** If required during Phase IIB, the negative pressure ventilation units shall remain in continuous operation during implementation of Phase IIC, including observance of settling/waiting periods and drying times.

(b) **First Cleaning, Lockdown Encapsulation and Top Layer Removal.** All surfaces of the regulated abatement work area shall be first wet-cleaned using rags, mops and sponges. For collecting excess liquid and wet debris, a wet purpose HEPA filtered shop vacuum may be used and shall be emptied prior to removal from the regulated abatement work area. When the first cleaning has been completed and the appropriate waiting/settling or drying time requirements of this Subpart have been met, a thin coat of a lockdown encapsulant agent shall be applied to all surfaces within the regulated abatement work area which were not the subject of removal or abatement. In no event shall lockdown encapsulant be applied to any surface which was the subject of removal or other abatement response activity, prior to obtaining satisfactory clearance air results for the regulated abatement work area. Once the lockdown encapsulant has been applied, the cleaned, exposed top barrier layer of plastic sheeting shall then be removed from walls, ceilings and floors. Windows, doors, HVAC system vents and other openings shall remain sealed. Decontamination system enclosures shall remain in place and shall continue to be utilized.

(c) **Second Cleaning and Bottom Layer Removal**. After the top layer of plastic sheeting has been removed, all objects and surfaces in the regulated abatement work area shall be HEPA-vacuumed and then wet-cleaned. After the second cleaning and waiting/settling or drying time requirements of this Subpart, then the remaining bottom layer of plastic sheeting on walls, ceilings and floors shall be removed. All windows, doors, HVAC system vents and all other openings shall remain sealed.

(d) **Third or Final Cleaning and Visual Inspection.** After the bottom layer of plastic sheeting has been removed, all objects and surfaces in the regulated abatement work area shall be HEPA-vacuumed and then wet-cleaned. After the final cleaning is complete, clearance air sampling shall not commence until the appropriate waiting/settling or drying time requirements of this Subpart have elapsed and a visual inspection has been completed to confirm that the scope of abatement work for the asbestos project is complete, and no visible asbestos debris, pools of liquid, or condensation remain. This visual inspection shall be completed by an appropriately trained and certified project monitor, contracted by the building/structure owner, independent of the asbestos abatement contractor.

CITY_21MC100_003246579

NYC-WTC_000438654

If the property owner is the asbestos abatement contractor for the asbestos project, the owner shall contract with an independent project monitoring firm asbestos contractor for the necessary visual inspection on the asbestos project. A complete abatement scope of work for the asbestos project shall be provided to the project monitor by the asbestos abatement contractor and property owner, prior to the scheduling of the required visual inspection. An entry shall be made into the asbestos abatement contractor supervisor's daily log by both the supervisor and the individual performing the inspection, detailing the findings of the visual inspection. The full name and NYSDOL asbestos handling certificate number of the certified individual performing the inspection shall also be documented in the supervisor's daily log.

(e) **Exemption From Multiple Cleaning And Sheeting Removal.** When the regulated abatement work area is not required to be plasticized, or when a tent enclosure unit is used, one thorough final cleaning followed by the observance of the appropriate waiting/settling or drying time requirement of this Subpart shall be required. For regulated abatement work areas where one layer of plastic sheeting is allowed, such as the use of spray plastic or pre-demolition asbestos projects, two cleanings (first and final), each followed by observance of the appropriate waiting/settling or drying time requirements of this Subpart is required. Cleanings shall consist of all surfaces in the regulated abatement work area being HEPA vacuumed first and then wet-cleaned.

(f) **Waiting/Settling And Drying Times Requirements.**

(1) The following waiting and drying times per material abated shall be observed for each stage of cleaning as per this Subpart:

(i)	fireproofing, plaster, TSI and other friable materials	- 12 hours
(ii)	abrasive removals of floor tile/mastic with machinery (such as a bead blaster, grit blaster, etc.)	- 12 hours
(iii)	manual removal of floor tiles/mastic	- 4 hours
(iv)	manual abatement of interior non-friable materials	- 4 hours
(v)	tent with glovebag abatement of TSI	- 2 hours
(vi)	intact transite panel removals indoors	- 2 hours
(vii)	Exterior non-friable ACM abatement without negative pressure enclosure	- None

(h) **Decontamination of Tools & Equipment.** All equipment (except negative air ventilation system) and tools shall be removed from the regulated abatement work area and properly decontaminated as per this Part, prior to commencement of clearance air sampling.

56-9.2 Air Sampling Requirements.

(a) **Personal Air Sampling.** Air sampling shall be performed in the worker's breathing zone, by the asbestos contractor for his personnel, as required by current OSHA regulations.

(b) **Daily Air Sampling.** Project air sampling shall be conducted daily for the full workshift for Large projects, until satisfactory clearance air results have been obtained for the regulated abatement work area. If more than one daily workshift is required to accomplish the work, air sampling shall be performed on each workshift. Air sampling is not required on days when there are no Phase II C activities.

(1) **Number And Location Of Samples – Large Asbestos Projects.** A minimum of five (5) samples shall be taken on a daily basis. The location of samples to be taken are the same as specified for Phase IIA and IIB. (See Section 56-7.1 and Table 2 within Section 56-4.9)

(2) **Work Stoppage Criteria During Phase II C Abatement Procedures.** If air samples collected outside the regulated abatement work area, indicate airborne fiber concentrations at or above 0.01 fibers per cubic centimeter, or the established background level, whichever is greater, work shall stop immediately for inspection and repair of barriers and negative air ventilation systems as necessary. Clean up of surfaces outside of the regulated abatement work area using HEPA-vacuums and wet-cleaning methods shall be performed prior to resumption of abatement activities. A summary of clean up activities and the results of barrier inspections including any necessary repairs, shall be documented in the supervisor's daily project log. Work methods shall be altered accordingly to reduce fiber concentrations to acceptable levels.

(c) **Exemption From Daily Air Sampling.** Daily air sampling is not required on exterior asbestos projects with abatement of non-friable ACM roofing, siding, caulking or glazing compound, tars, sealers, coatings or other NOB ACMs, unless the ACM is rendered friable during removal, or debris falls inside the building/structure.

(d) **Clearance Air Sampling.** There is no exemption from these requirements for Small or Large size negative pressure tent enclosure work areas. The amount of material abated within each regulated abatement work area determines the project size clearance air sampling requirements for each regulated abatement work area.

(1) **Aggressive Sampling Techniques.** The following aggressive sampling techniques must be used for Phase II C clearance air sampling:

(i) **Pre-Sampling Agitation.** Before starting the air sampling pumps, the exhaust of forced air equipment shall be directed against all walls, ceilings, floors, ledges, and other surfaces in the rooms. This

NYC 9/11 Public Portal Document

shall continue for at least five (5) minutes per 1,000 square feet of floor space.

(ii) **Ongoing Agitation.** At least a 20-inch fan shall be placed in the center of each room. One fan per 10,000 cubic feet of room space shall be used. The fan shall be operated on slow speed and pointed toward the ceiling.

(iii) **Begin Sampling.** The sampling pumps shall then be turned on.

(iv) **End Sampling.** When sampling has been completed, the sampling pump shall be turned off first, followed by the fan.

(2) **Number and Location of Samples - Large Project.** A minimum of ten (10) area samples shall be taken. Five (5) samples shall be taken inside the regulated abatement work area and five (5) samples shall be taken outside of the regulated abatement work area within the building or structure in uncontaminated areas that are within ten (10) feet of the isolation barriers. One additional inside sample shall be required for every 5,000 sq. ft. above 25,000 sq. ft. of floor space within the regulated abatement work area. If the entire building/structure is the regulated abatement work area, the five (5) area samples outside the regulated abatement work area shall be eliminated and one (1) sample shall be collected outside the building/structure within ten (10) feet of isolation barriers.

(3) **Number and Location of Samples - Small Project.** A minimum of six (6) samples shall be taken. Three (3) samples shall be taken inside the regulated abatement work area and three (3) samples shall be taken outside of the regulated abatement work area, within the building or structure, in the uncontaminated areas within ten (10) feet of the isolation barriers. If the entire building/structure is the regulated abatement work area, the three (3) area samples outside the regulated abatement work area shall be eliminated and one (1) sample shall be collected outside the building/structure within ten (10) feet of the isolation barriers.

(4) Number And Location Of Samples – Minor Asbestos Projects & Minor Size Regulated Abatement Work Areas. For a Minor asbestos project, air samples are not required unless the glove bag or tent fails or if it is an incidental disturbance project, in which case the following sampling will be required. Also, if a minor size regulated abatement work area is part of a small or large asbestos project, the following sampling will be required per minor size regulated abatement work area.

(i) **Clearance Air Sampling.** A minimum of two (2) samples shall be collected. One (1) sample shall be collected inside the regulated abatement work area and one (1) sample shall be collected outside of the regulated abatement work area, within the building or structure, in an uncontaminated area within ten (10) feet of the isolation barriers.

CITY_21MC100_003246582

NYC-WTC_000438657

(e) **Exemption From Clearance Air Sampling.** Clearance air sampling is not required for exterior asbestos projects completed without a negative pressure enclosure. When clearance sampling is not required as per this Part, once the final cleaning is complete, the appropriate waiting/settling or drying time requirements, as defined in Section 9.1 shall commence. Once the appropriate time period has elapsed, a visual inspection shall be completed to confirm that the scope of abatement work for the asbestos project is complete, and no visible asbestos debris, pools of liquid, or condensation remain. This visual inspection shall be completed by an appropriately trained and certified project monitor contracted by the building/structure owner, independent of the asbestos abatement contractor. If the property owner is the asbestos abatement contractor for the asbestos project, the owner shall contract with an independent project monitoring firm asbestos contractor for the necessary visual inspection on the asbestos project. A complete abatement scope of work shall be provided to the project monitor by the asbestos abatement contractor and property owner, prior to the scheduling of the required visual inspection. An entry shall be made into the asbestos abatement contractor supervisor's daily log by both the supervisor and the individual performing the inspection, detailing the findings of the visual inspection. The full name and NYSDOL asbestos handling certificate number of the certified individual performing the inspection shall also be documented in the supervisor's daily log. If the regulated abatement work area is determined to be acceptable, this qualified individual may authorize breakdown of the regulated abatement work area, removal of all remaining barriers and waste removal from the site.

(1) **Exemption from Project Monitor Visual Inspection.** Asbestos projects which are exempt from clearance air sampling requirements at one or two-family owner occupied residential buildings/structures, are also allowed an exemption from the project monitor visual inspection requirements. For asbestos projects utilizing this exemption, once final cleaning is complete, a visual inspection shall be completed by the supervisor to confirm that the scope of abatement work for the asbestos project is complete, and no visible debris, pools of liquid, or condensation remain. The results of this inspection shall be documented by the supervisor in the asbestos abatement contractor daily project log, and once the asbestos project is complete the supervisor shall also obtain the owner's written acceptance of the final results of the asbestos project within the daily project log.

(f) **Satisfactory Clearance Air Sample Results.** The clearance air sample results shall be considered acceptable when the clearance criteria in Section 56-4.11 have been satisfied.

(g) **Unsatisfactory Clearance Air Sample Results.** Required actions if the non-exempt regulated abatement work area clearance air sampling results are unsatisfactory are as follows:

(1) **Recleaning.** Any non-exempt regulated abatement work area which does not meet the satisfactory clearance air sampling results criteria shall be recleaned using wet cleaning methods, with the negative air pressure

equipment operating as per the requirements of this Part.

(2) **Collection of New Samples.** After recleaning is complete, clearance air sampling shall not commence until the appropriate waiting/settling or drying time requirement as per Section 56-9.2(f) has elapsed and no visible asbestos debris, pools of liquid, or condensation remain. New clearance air samples for Phase II C shall be collected in all unsatisfactory regulated abatement work areas. Samples shall be placed in the same positions as before, and the new samples analyzed for concentrations of airborne fibers.

(3) **Repeating Air Sampling and Analysis.** The requirements of this Subdivision shall be repeated until satisfactory clearance air sampling results have been achieved, for all non-exempt regulated abatement work areas throughout the entire work site.

56-9.3 Dismantling of Regulated Abatement Work Area.

(a) **Collapsing and Containerizing of Tent Enclosures.** Each tent enclosure and airlock shall not be dismantled until clearance air sampling has been performed and satisfactory results obtained. The plastic sheeting which formed the tent, airlock, and the contents thereof, shall be fully collapsed, starting from the top and working downward. The tent and contents shall be placed in at least a six (6) mil plastic bag or hardwall container, sealed airtight with duct tape and removed for disposal. The plastic sheeting shall be treated as contaminated material and properly disposed of as asbestos waste.

(b) **Removal of Tools and Equipment.** All remaining tools and equipment shall be removed from the regulated abatement work area after proper decontamination as per this Part.

(c) **Removal of Remaining Barriers.** Once the asbestos abatement contractor receives satisfactory clearance air sample results, or an acceptable visual inspection for an exempt regulated abatement work area, and all tools and equipment are removed, all remaining polyethylene, duct tape, expandable foam and other barrier materials shall be bagged, wrapped or containerized and labeled as asbestos waste. Temporary hardwall barriers must be dismantled and removed from the site. If any debris is observed behind barriers, it shall be removed and bagged/containerized followed by HEPA-vacuuming and wet-cleaning of the surfaces that were hidden behind the barrier. All waste generated shall be removed to the holding area, lockable trailer or lockable hardtop dumpster as per Section 8.9 of this Part. The asbestos abatement contractor's supervisor shall then conduct a final inspection of the regulated abatement work area to certify that the abatement work is complete and no debris remains. The results of the final inspection for each regulated abatement work area shall be noted in the asbestos abatement contractor supervisor's daily project log.

(d) **Removal of Decontamination Enclosure.** After all other remaining isolation barriers, tools and equipment have been removed from the regulated abatement

CITY_21MC100_003246584

NYC-WTC_000438659

NYC 9/11 Public Portal Document

work area, the remaining decontamination enclosure for the regulated abatement work area must be dismantled and removed from the work site. All plastic sheeting shall be removed and disposed of as asbestos waste.

CITY_21MC100_003246585

NYC-WTC_000438660

SUBPART 56-10

PHASE II D FINAL WASTE REMOVAL FROM SITE REQUIREMENTS.

56-10.1 Air Sampling Requirements.

(a) **Satisfactory Clearance Air Results.** Satisfactory clearance air results must be obtained, for all non-exempt regulated abatement work areas, before final waste removal from the site may be completed as per this Subpart.

56-10.2 Removal of Tools and Equipment. All remaining tools and equipment shall be removed from the work site after proper decontamination.

56-10.3 Removal of Remote Decontamination Enclosures. After all regulated abatement work areas for the asbestos project have been dismantled as per Section 56-9.3, any remaining remote decontamination enclosures must be dismantled and removed from the work site. All plastic sheeting shall be removed and disposed of as asbestos waste.

56-10.4 Removal of Waste from the Site. All waste generated as part of the asbestos project shall be removed from the site within ten calendar days after successful completion of Phase II C for all regulated abatement work areas at the site. All waste generated during the asbestos project shall be legally disposed of at an approved landfill facility. All generated waste removed from the site must be documented, accounted for and disposed of in compliance with the requirements of EPA NESHAP.

CITY_21MC100_003246586

NYC-WTC_000438661

SUBPART 56-11
SPECIAL PROJECTS SECTION

56-11.1 In-Plant Operations.

(a) **Air Sampling and Analysis.** Air sampling and analysis on all asbestos projects conducted under this Section shall be conducted in accordance with the requirements of Subpart 56-4 of this Part.

(b) **Where Allowed.** In-plant operations permissible under this Subpart are only those that meet all of the following criteria:

(1) Any work within the premises of an employer other than the State, any political subdivision of the State, a public authority or other governmental agency or instrumentality thereof, in an area to which persons other than those directly involved in the work shall not have access during the course of the work, and which is performed in a manner consistent with federal regulations promulgated under the Federal Occupational Safety and Health Act, pursuant to Chapter 15 of Title 29 of the United States Code and is performed in a manner which shall not expose the public to airborne fibers in excess of background levels or .01 fibers per cubic centimeter, whichever is greater, provided that the work involves the encapsulation, enclosure, removal, repair, disturbance or handling of

(i) less than 160 square feet or 260 linear feet of ACM, PACM, or asbestos material and is performed by employees of such employer or

(ii) any quantity of Non-friable Organically Bound (NOB) asbestos material, provided the abatement methods will not render the asbestos material friable during abatement. Only ELAP approved laboratories compliant with Section 56-4.2 of this Part, can make the determination that bulk samples of a non-friable suspect ACM are NOB asbestos materials.

(c) **Limitations.** The "in-plant operations" exception created in Section 901(12) of the Labor Law is limited in scope.

(1) There is no exemption from requirements for licensing and certification set forth elsewhere in this Part. See Subpart 56-3 of this Part.

(2) There is no exemption from air sampling or asbestos survey requirements set forth in this Part. See Subparts 56-4 and 56-5 of this Part.

(3) There is no exemption from requirements for project notification or from notice to residents or occupants set forth in this Part. See Sections 56-3.4, 56-3.5, and 56-3.6 of this Part, respectively.

(4) There is no exemption from record-keeping requirements of Labor Law, Section 904 and Section 56-3.4(a) of this Part.

(5) For all of these purposes, in-plant operations are asbestos projects as

defined in Section 56-2.1 of this Part.

(6) There is a limited exemption from other Code Rule 56 work practices where all of the following conditions are met:

(i) the project takes place within the premises of the nonpublic employer;

(ii) the project takes place in an area to which persons other than those directly involved in the work shall not have access during the course of the work;

(iii) the project is performed in a manner consistent with current OSHA regulations;

(iv) the project is performed in a manner which shall not expose the public to airborne fiber concentrations exceeding background levels or .01 fibers per cubic centimeter, whichever is greater; and

(v) the project:

(a) involves encapsulation, enclosure, removal, repair, disturbance or handling of less than 160 square feet or 260 linear feet of asbestos or asbestos material and work is performed by employees of the employer; or

(b) involves the encapsulation, enclosure, removal, disturbance, repair or handling of NOB asbestos materials. If the materials listed in this clause are involved and no asbestos material will be rendered friable during abatement, an employer may employ an outside asbestos abatement contractor (i.e., the work need not be performed by employees of such employer.)

(d) **In-plant Operations Regulated Abatement Work Area.** Every location where an in-plant operation is performed shall be considered to be a regulated abatement work area for purposes of this Subpart.

(e) **Licensing, Notification and Certification.** Asbestos contractors and other individuals engaged in asbestos projects conducted under this Subpart shall comply with the requirements of Subpart 56-3 of this Part.

(f) **Failure to Meet "In-Plant Operations" Criteria.** If, at any time prior to, during or subsequent to the asbestos project, conditions are such that any of the criteria of Subdivision (c) of this Section are not met, all anticipated, current and further work or activity on such project shall be conducted in accordance with all requirements of Industrial Code Rule 56.

56-11.2 Emergency Projects.

(a) **Air Sampling and Analysis.** Air sampling and analysis on emergency asbestos projects shall be conducted in accordance with the requirements of Subpart 56-4 of this Part.

(b) **Where Allowed.** Permissible under this Section are only those projects that are deemed by the Commissioner or his or her duly authorized representative as being necessary to respond to an unexpected, unanticipated or unforeseen occurrence, including but not limited to, an incidental disturbance of ACM, PACM or asbestos material, a steam, chemical, gas or water line rupture, or boiler failure or a building/structure collapse, which poses

(1) an imminent danger to the health and safety of the public or

(2) an asbestos related risk to the health and safety of the public from release of airborne asbestos fibers.

(c) **Licensing and Certification.** Emergency asbestos projects conducted under this Subpart shall comply with the requirements of Sections 56-3.1, 56-3.2 and 56-3.3 of this Part.

(d) **Notification.** Prior to the commencement of an emergency asbestos project, the asbestos abatement contractor shall comply with the emergency asbestos project notification requirements set forth in Sections 56-3.5 and 56-3.6 of this Part.

(e) **Approved Emergency Project.** If permission to proceed as an emergency asbestos project is granted as per this Subdivision and Section 56-3.5 of this Part, all work done on the project must be performed in a manner consistent with applicable provisions of this Part or with approved variance conditions required by the Commissioner or his or her designee. If the asbestos project will be completed using alternative procedures defined within a site-specific variance, the approved variance decision must be obtained prior to proceeding with the asbestos project. If permission to proceed with the emergency asbestos project is denied, all work shall be performed in accordance with all applicable provisions of this Part.

(f) Corrective Actions for Incidental Disturbance of Asbestos Containing Materials:

(1) Upon discovery, the affected area shall be cordoned off with barrier tape at a distance of twenty-five (25) feet from the outer most limit of the disturbance. This shall be considered the regulated abatement work area for the cleanup of the disturbed materials. Isolation barriers shall be installed in conformance with Section 56-7.11 and adequate signage shall be posted as described in Subpart 56-7.4(c). <u>After evaluation and emergency notification for the incidental disturbance as per Section 3.5, critical barriers shall be installed as per Section 56-7.11, or an appropriately sized tent enclosure shall be installed to serve as an isolation barrier, dependent upon the size and configuration of the area disturbed. Then negative air ventilation systems shall be established as per Section 56-7.8(a)</u>.

(2) Tent enclosures if necessary, shall be constructed as per section 56-

CITY_21MC100_003246589

NYC-WTC_000438664

7.11(f)(1) to surround the area of disturbance. The tent shall be sealed to the surfaces beyond the limits of contamination, and those surfaces of the tent enclosure (wall, ceiling, or floor) shall not require plastic sheeting. An attached airlock is required.

(3) Due to the nature of this work, background air samples shall not be required.

(4) Methods shall be employed to minimize further disturbance of the affected material during cleanup activities. No removal of undisturbed ACM, PACM or asbestos material shall be allowed during the incidental disturbance cleanup emergency asbestos project.

(5) **Visual Inspection.** Once final cleaning is complete, a visual inspection shall be completed by the supervisor to confirm that the scope of abatement work for the asbestos project is complete, and no visible debris, pools of liquid, or condensation remain.

(6) **Removal of Personal Protective Equipment**. The worker's disposable protective clothing shall be removed and left in the incidental disturbance work area upon exiting.

(7) **Exiting Procedures.** After exiting the tent, workers shall immediately don clean protective clothing within the attached airlock. Workers shall then proceed immediately to a shower for decontamination.

(8) After cleanup of debris caused by the incidental disturbance, a visual inspection followed by completion of clearance procedures, shall be performed consistent with the requirements of Subpart 56-9.

56-11.3 Minor Asbestos Projects.

(a) **Air Sampling and Analysis.** Air sampling and analysis on a minor asbestos project conducted under this Section shall be conducted in accordance with the requirements of Subpart 56-4 of this Part.

(b) **Where Allowed.** For asbestos projects with abatement of less than ten (10) square feet or twenty-five (25) linear feet of ACM, PACM or asbestos material, Phase II Minor asbestos project abatement procedures as per this Section may be complied with in lieu of full compliance with Sections 56-7 through 56-9. All other requirements of this Part shall apply. Only an isolated event necessary for repair associated with normal operation and maintenance activities shall be considered a minor asbestos project. Minor asbestos project corrective actions shall include limited enclosure, spot repair/patching, incidental disturbance clean-up, spot removal, and spot encapsulation. All corrective actions except spot removal shall be performed using non-asbestos material. Repairs where spot removal has occurred shall also utilize non-asbestos material.

(c) **Ventilation for Power Tools.** Power tools used to drill, cut, or otherwise disturb asbestos material in Minor size regulated abatement work areas, shall be equipped with HEPA-filtered local exhaust ventilation.

(d) **Glovebag Use.** Glovebag operations may be performed within negative pressure tent enclosures, and shall utilize commercially available glovebags of at least six (6) mil, transparent plastic and no larger than needed. See Section 56-7.11 regarding tent construction and Section 56-8.4 regarding proper glovebag procedures.

(e) **Tent Use.** Tents may be used to perform Minor size asbestos abatement, with or without the use of glovebags. Commercially available tents with floors, walls and ceilings of at least six (6) mil, fire-retardant plastic or a constructed tent per Section 56-7.11(f)(1) of this Part may be used. When utilizing a tent for Minor size asbestos projects, the following shall be required:

(1) **Personal Protective Equipment.** All persons shall don appropriate personal protective equipment before entering the tent in compliance with current OSHA regulations. Authorized visitors entering the tent shall also don NIOSH-approved respiratory protection.

(2) **Exhausting the Tent.** A HEPA-vacuum or other negative pressure HEPA-filtered ventilation equipment shall be used to continuously exhaust the tent in accordance with Sections 56-7.8(a) and 56-7.11(f)(1) of this Part.

(3) **Amended Water.** All material to be removed shall be saturated with amended water as specified in this Part.

(4) **Abatement Procedures.** Asbestos material shall be removed and sealed in plastic bags prior to removal from tent. Edges of asbestos material remaining shall be encapsulated or sealed with wettable cloth.

(5) **Sealing of Surfaces and Edges.** The substrate from which asbestos was removed and any exposed edges shall be sealed with encapsulant.

(6) **Clean Up.** Cleanup shall be accomplished as follows:

(i) **Method.** All accumulations of asbestos waste material shall be containerized and removed. HEPA-vacuums shall be used to clean all surfaces after gross cleanup.

(ii) **Removal of Contaminated Equipment and Waste.** Contaminated equipment and all containerized waste shall be removed from the regulated abatement work area.

(iii) **Cleanup of Surfaces.** All surfaces in the regulated abatement work area shall be wet-cleaned using rags, mops or sponges.

(iv) **Waiting Period.** Negative pressure HEPA-ventilated air equipment shall be operated for a minimum of 20 minutes following completion of final wet cleaning.

(7) **Visual Inspection.** Once final cleaning is complete, a visual inspection shall be completed by the supervisor to confirm that the scope of abatement work for the asbestos project is complete, and no visible debris, pools of liquid, or condensation remain.

(8) **Removal of Personal Protective Equipment**. The worker's disposable

CITY_21MC100_003246591

NYC-WTC_000438666

protective clothing shall be removed and left in the tent upon exiting.

(9) **Exiting Procedures.** After exiting the tent, workers shall immediately don clean protective clothing. Workers shall then seal the tent exit and, upon tent collapse, shut down the HEPA-vacuum.

(10) **Collapsing and Containerizing the Tent.** The plastic sheeting which formed the tent, and the contents thereof, shall be fully collapsed, starting from the top and working downward. The tent and contents shall be placed in at least a six (6) mil plastic bag or hardwall container, sealed airtight with duct tape and removed for disposal.

(11) **Showering.** Workers shall proceed immediately to a shower for decontamination.

(12) **Failure.** Actions to be taken in the event of loss of tent integrity are outlined in Subdivision (d) of this Section.

56-11.4 Pre-Demolition Asbestos Abatement Projects. The following Phase II abatement procedure modifications shall apply for building/structures planned for demolition. All ACM, PACM or asbestos material must be removed from a building/structure and the asbestos project complete, prior to commencement of demolition activities.

(a) **Air Sampling and Analysis.** Air sampling and analysis on an asbestos projects conducted under this Section shall be conducted in accordance with the requirements of Subpart 56-4 of this Part.

(b) **Regulated Abatement Work Area Preparation.** Regulated abatement work area preparation shall be as per Subpart 56-7, except as follows:

(1) **Timing - Removal of Salvage.** Objects that can be removed from the regulated abatement work area without disturbing friable ACM prior to beginning Phase II B abatement procedures shall be completed as follows. The removal of nonporous, movable or non-movable salvage shall occur after critical barriers, isolation barriers and decontamination enclosures are in place in that portion of the building or structure, and only after salvage has been wet-cleaned and HEPA-vacuumed.

(2) **Floor, Wall & Ceiling Plasticizing and Sealing.** All porous floor, wall and ceiling surfaces, except where abatement of ACM, PACM or asbestos material shall be performed on those specific surfaces, shall be covered with one (1) layer of, at a minimum, six (6) mil fire-retardant plastic sheeting. The floor shall be plasticized first, and its plastic sheeting shall extend up the walls a distance of at least twelve (12) inches on all sides. The walls shall then be plasticized by applying plastic sheeting from the ceiling to the floor, overlapping the floor sheeting by at least twelve (12) inches. Next, the ceiling shall be plasticized, overlapping the walls by at least twelve (12) inches, to form a secure airtight seam. If the floor surface is not to be placticized, it shall be made watertight. All seams in the plastic shall be sealed watertight and airtight.

(3) **Suspended Ceilings.** Suspended ceiling tiles and T-grid components in proximity to friable ACM shall remain in place until the regulated abatement work area has been fully prepared in accordance with this Section, and electrical and HVAC systems have been shut down. These potentially contaminated suspended ceiling components shall be removed at the completion of the remaining work area preparation, including establishment of negative air ventilation systems, prior to commencement of Phase II B activities. These removed ceiling components shall be bagged/containerized and disposed of as asbestos waste.

(4) **Elevators.** Elevators running through the regulated abatement work area shall conform to the following:

(i) The elevator door in the regulated abatement work area shall be enclosed per Section 56-7.11(d).

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

(iii) Elevator shafts shall not be used as waste chutes for asbestos waste material.

(iv) Elevators that remain in use shall conform to the additional procedures to minimize the piston effects.

(a) Elevator controls shall be modified to bypass the regulated abatement work area.

(b) A third (final) layer of polyethylene is to be duct taped airtight but with slack so as to form 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. If contamination is found in this area, the entire affected area shall be wet-cleaned prior to continuing any other work.

(c) This system shall be smoke tested daily.

(c) **Removal.** Removal of ACM, PACM and asbestos material shall proceed as per the requirements of Subpart 56-8.

(d) **Final Cleaning and Clearance Procedures.** Final clean-up and clearance procedures for pre-demolition abatement shall comply with Section 56-9, except that only two stages of cleaning (first and final) are to performed. Lockdown encapsulant use shall be consistent with Section 9.1(b).

(e) **Final Waste Removal From the Site.** The requirements of Subpart 56-10 shall apply, once all asbestos project regulated abatement work areas have been completed.

56-11.5 Demolition with Asbestos in Place.

(a) **Air Sampling and Analysis.** Air sampling and analysis on an asbestos project

conducted under this Section shall be conducted in accordance with the requirements of Subpart 56-4 of this Part.

(b) **Asbestos to Remain During Demolition.** A building/structure may be demolished with asbestos material in place as per the requirements of this Section, when either of the following conditions are met:

(1) **Building/structure is Condemned.** A building or structure may be ruled structurally unsafe by a licensed Professional Engineer, Registered Architect, Building Inspector, Fire Inspector or other official of competent jurisdiction. The official shall attest to the condition of the building/structure in writing. A copy of the condemnation letter shall be attached to the project notification mailed to the Department of Labor and a copy shall be posted at the work site.

(2) **Municipally Owned.** The building is a municipally owned, vacant residential structure of four or less living units, up to three stories in height.

(c) **Demolition Procedures.** The following demolition procedures shall be followed:

(1) **Project Size.** Unless the size of the project can be positively quantified it shall be deemed to be a Large project. The maximum fee shall accompany the notification.

(2) **Regulated Abatement Work Area.** The entire demolition area shall be considered the regulated abatement work area. This area shall be enclosed within a barrier to prevent unauthorized entry. Signage on this barrier shall be in accordance with ICR 56-7.4. Orange construction fence or snow fence is acceptable for this purpose.

(3) **Entrance or Exit.** Entrance or exit of all persons and equipment shall be through one designated and controlled "access way" in the barrier or fence, which shall provide a means of egress from the regulated abatement work area.

(4) **Decontamination Areas.** All decontamination areas shall be within the regulated abatement work area. An equipment decontamination area shall be cordoned off within the worksite for cleaning of heavy equipment, i.e., backhoes, excavators, loaders, etc. The ground surface in this decontamination area shall be banked on the sides to confine the contaminated wastewater.

(5) **Equipment Decontamination.** Equipment shall be decontaminated prior to exiting the regulated abatement work area, utilizing a pressure wash system, after which all exposed surfaces inside and out shall be wet wiped. The surface below the equipment shall be scraped or cleaned of any residual asbestos contamination. This material shall be removed and disposed of as asbestos contaminated material.

(6) **Debris.** All debris generated by the demolition shall be considered to be regulated asbestos containing material waste, except for structural members, steel components and similar non-suspect items which shall be

fully decontaminated as per this Part.

(7) **Wetted Demolition Waste.** The demolition waste shall be wetted on a continuous basis that is prior to, during and subsequent to its actual collection and removal. Fog nozzles or similar type of equipment shall be used to perform the wetting.

(8) **Wetted Piles of Waste.** Piles of waste not actively being worked on, i.e. piles being added to or portions being removed or piles left over extended periods of time, shall be covered with at least one layer of 6 mil polyethylene to retain its moisture level and to prevent fiber release.

(9) **Wastewater.** Wastewater shall be confined within the controlled demolition regulated abatement work area. All wastewater shall be collected by means of trenching or ditches and directed into a holding tank. Disposal of such wastewater shall be in accordance with applicable laws and regulations. After wastewater has dissipated, the earth surface below the trenches and holding tank shall be scraped and any residual asbestos contamination removed and disposed of as asbestos contaminated material.

(10) **Pending Disposal.** All demolition waste shall be placed in hard wall, closed containers or vehicles with at least two (2) layers of fire retardant six (6) mil plastic sheeting draped loosely over the sides of the load to facilitate being wrapped over the top of the load and sealed air tight prior to transport from the site. Dumpsters shall be considered to be hard wall containers. There shall be no visible emissions or water leakage from these containers.

(11) **Contaminated Earth Surfaces.** The earth surface below the rubble and or contamination areas shall be scraped clean of any residual asbestos contamination. This material shall be removed and disposed of as asbestos contaminated material.

56-11.6 Exterior Project Removal of Non-friable ACM Roofing, Siding, Caulking, Glazing Compound, Tars, Sealers, Coatings, and Other Non-friable NOB ACMs. The following Phase II abatement procedures shall apply for exterior removal of non-friable asbestos-containing roofing, siding, caulking, glazing compound, tars, sealers, coatings, and other non-friable ACMs, unless the ACM is rendered friable during removal or debris falls within the building/structure. The asbestos project shall then be completed in accordance with all requirements of this Part, except special project subpart 56-11.

(a) **Air Sampling and Analysis.** Air sampling and analysis on asbestos projects conducted under this Section is not required unless the ACM is rendered friable during removal or debris falls inside the building/structure. Air sampling and analysis shall then be conducted in accordance with the requirements of Subpart 56-4 of this Part.

(b) **Regulated Abatement Work Area Preparation.**

(1) **Establishment and Isolation of Regulated Abatement Work Area.** The immediate work area shall be considered to be the area from which the asbestos containing materials are actively being removed. The asbestos project regulated abatement work area shall extend twenty-five feet (25') from the perimeter of the immediate work area and shall have signage in accordance with Section 56-7.4 of this Part. An airlock shall be required at the entrance to the regulated abatement work area to serve as a changing area, if the workers shall have to pass through enclosed publicly occupied space, such as from a roof through an interior stairway, to access the decontamination units.

(i) Where the asbestos project regulated abatement work area extends outward 25 feet and extends downward one floor to encompass a passage or vehicular door which must be used for either a primary entrance or by an emergency vehicle thereby precluding sealing such door, a tunnel structure (with sides and roof) built of plywood sheeting, covered with at least two (2) layers of at least six (6) mil plastic, shall extend outward 25 feet horizontally from the line of vertical projection of the roof edge downward to grade level

(2) **Preliminary Preparation.** Regulated abatement work area preparation shall also comply with sections 56-7.2, 7.3, 7.4, 7.5, 7.6, 7.7 and 7.9.

(3) **Decontamination System Location.** The personal and waste decontamination system enclosures can be remote but must be within 50' of the building/structure entrance used by the asbestos handlers(workers), and shall be removed only after obtaining satisfactory clearance air results for the regulated abatement work area or an acceptable visual inspection has determined that the abatement is complete, as per Section 56-9. 2(d).

(4) **Critical Barriers.** Prior to the placement of critical barriers, affected surfaces shall be pre-cleaned using HEPA-filtered vacuum equipment and wet cleaning methods. All openings within the regulated abatement work area shall be sealed with critical barriers installed as per Section 56-7.11(a), prior to beginning Phase II B activity on the project. The critical barriers shall be removed only after satisfactory clearance air sampling results have been obtained or the asbestos project is complete. The requirements of Section 56-7.11(b-e) do not apply. Additional requirements are as follows:

Roofs:

(i) All openings (including operable windows, doors, ducts, grilles, communicating openings, etc.) one (1) story above and one (1) story below the roof level of the regulated abatement work area (this includes any building/structure within twenty-five (25) feet of the immediate work area), shall be sealed directly with two (2) layers of at least six (6) mil flame-retardant plastic sheeting. All vent openings which cannot be sealed shall be extended vertically

a minimum of eight (8) feet and remain in operation.

(ii) A polyethylene drape or curtain may be used instead of plasticizing the windows individually. The drape may be removed after the asbestos project is complete.

(iii) The drape or curtain, if used, shall be made of two (2) layers of a continuous eighteen (18) foot curtain (drape) of at least six (6) mil plastic hung from the top of the wall or parapet. The plastic curtain shall be secured using nailer strips and ram set charges or other methods approved by the Project Supervisor. The bottom of the plastic curtain shall be sufficiently weighted or anchored to prevent lifting due to winds. Curtain seams shall overlap at least twelve (12) inches and be sealed with duct tape front and back. The curtain ends and each seal shall be reinforced by stapling furring strips to the plastic. The plastic curtain shall extend a minimum of fifteen (15) feet beyond the last opening within twenty-five (25) feet of the regulated abatement work area. When removed, the plastic curtain shall be disposed of as asbestos waste.

(iv) Any windows on the floor below or above and within twenty-five (25) feet of the immediate work area need to be plasticized, but if safety reasons dictate, they may be plasticized from inside the building/structure.

(v) Any fixed or non-operable windows on the floor below or above and within twenty-five (25) feet of the immediate work area need not to be plasticized, but shall be sealed using caulking or duct tape.

Facades:

(vi) Removals without tents will require plasticizing or sealing of nearby windows within twenty-five (25) feet of the immediate work area, placement of dropcloths, plasticizing of a man-lift or scaffolding and other operational safeguards as outlined below.

(vii) For larger work area removals, any operable windows or openings to the building at the work level or on the floor below within twenty-five (25) feet of the immediate work area shall be plasticized with two (2) layers of six (6) mil fire retardant polyethylene sheeting. The windows can be plasticized outdoors, or for reasons of safety, from the indoors. Window, door and louver units subject to complete removal must have their openings plasticized at the interior of the building. Windows that are fixed or non-operable and will remain sealed airtight for the duration of abatement activities, do not require installation of critical barriers.

(viii) Under areas where non-friable materials are removed without tents, a dropcloth, made of 6 mil fire retardant polyethylene sheeting, shall be placed on the ground below the work area to prevent spread of any ACM remnants. This dropcloth shall be a minimum of ten (10)

feet wide with an additional ten (10) feet of width for every floor above a 1st floor level where removal work will take place, up to a maximum of thirty (30) feet of width measured perpendicular to the building/structure. In addition, if a straight scaffolding, man-lift, swing scaffolding or similar equipment is used for areas above the 1st floor, the lift/scaffolding unit shall be plasticized with two (2) layers of six (6) mil fire retardant polyethylene on the platform proper, with plastic sheeting extended vertically to waist-high (as so equipped) guardrail sides and back of the lift unit. While the platform/lift walking surfaces must be plasticized, the asbestos abatement contractor must provide proper traction surfaces or equipment to assure the safety and comfort of abatement workers while performing abatement activities on the lift/scaffold equipment. After non-friable ACM is removed from each work location, the platform and plasticized surfaces toward the building shall be wet wiped and/or HEPA vacuumed clean before reuse. The plasticizing on the lift or scaffolding shall be periodically inspected during use and repaired as needed.

(c) **Removal.** Removal of ACM shall utilize manual wet methods for all non-friable ACM removals, and rotating blade roof cutters for roofing removals, as applicable. In no event shall methods be used that may render the ACM friable.

(1) Residual non-friable ACM will be wet scraped and HEPA vacuumed. Materials removed shall be containerized or immediately wrapped in two (2) layers of six (6) mil fire retardant plastic sheeting and secured air tight prior to transport to the waste decontamination facility.

(2) Under façade areas where non-friable ACM is to be removed without tents, whenever possible, an asbestos handler(worker) with a HEPA vacuum will position the vacuum hose within four (4) inches of the material being removed to capture small pieces of non-friable ACM and asbestos fines. The hose end will be positioned so that as many smaller pieces of material as possible will fall into the vacuum hose end. Larger pieces of ACM should be immediately bagged or containerized.

(3) Asbestos containing materials will not be allowed to accumulate in the work area or on the drop cloth.

(4) In lieu of using an exterior chute as per Section 8.4(g), waste bags and containers may be lowered to the waste trailer/dumpster by crane or hoist using a temporary waste transfer container of adequate size and strength.

(d) **Clean-Up Procedures During Abatement.** The following clean-up procedures shall be performed during abatement.

(1) Visible accumulations of loose asbestos containing waste material shall be cleaned up using rubber or plastic dustpans and rubber squeegees or HEPA filtered vacuums. Metal shovels may also be used except in the vicinity of plastic sheeting, critical barriers and isolation barriers, which could be perforated by these tools. To pick up excess water and gross

wet debris, a wet-dry shop HEPA vacuum dedicated to asbestos abatement may be used. This cleaning shall be done whenever there is sufficient asbestos waste material to fill a single leak-tight bag/container, or this cleaning shall be done at the end of each work shift whichever shall occur first. Visible debris shall be maintained adequately wet.

(2) Work shall stop whenever excessive water accumulation or flooding is present in the area and shall not resume until the water is collected and disposed of properly.

(e) **Final Cleaning and Clearance Procedures.** Final clean-up and clearance procedures for abatement shall comply with Section 56-9, except that only one stage of cleaning (final) is to be performed. Lockdown encapsulant use is not required.

(1) **Exemption from Project Monitor Visual Inspection.** Asbestos projects which are exempt from clearance air sampling requirements at one or two-family owner occupied residential buildings/structures, are also allowed an exemption from the project monitor visual inspection requirements. For asbestos projects utilizing this exemption, once final cleaning is complete, a visual inspection shall be completed by the supervisor to confirm that the scope of abatement work for the asbestos project is complete, and no visible debris, pools of liquid, or condensation remain. The results of this inspection shall be documented by the supervisor in the asbestos abatement contractor daily project log, and once the asbestos project is complete the supervisor shall also obtain the owner's written acceptance of the final results of the asbestos project within the daily project log.

(f) **Final Waste Removal From the Site.** The requirements of Subpart 56-10 shall apply, once all asbestos project regulated abatement work areas have been completed.

56-11.7 Non-friable Flooring and/or Mastic Removal. The following Phase II abatement procedures shall apply for removal of non-friable asbestos-containing flooring and/or mastic materials including cove base and associated mastic. **(Note - Full work area preparation, abatement and multiple cleanings per this Part are required for beadblaster use or other abrasive abatement method.)**

(a) **Air Sampling and Analysis.** Air sampling and analysis on an asbestos project conducted under this Section shall be conducted in accordance with the requirements of Subpart 56-4 of this Part.

(b) **Regulated Abatement Work Area Preparation.**

(1) **Establishment of Regulated Abatement Work Areas.** Each regulated abatement work area shall be established and signage posted as per the requirements of Section 56-7.4. Each regulated abatement work area shall remain vacated except for certified workers until satisfactory clearance air sampling results have been obtained or the asbestos project is complete.

CITY_21MC100_003246599

NYC-WTC_000438674

(2) **Preliminary Preparation.** Regulated abatement work area preparation shall also comply with sections 56-7.1 through section 7.10, except that six (6) air changes per hour are required within the work area.

(3) **Critical and Isolation Barriers.** Prior to the placement of critical and isolation barriers, affected surfaces shall be pre-cleaned using HEPA-filtered vacuum equipment and wet cleaning methods. All critical and isolation barriers shall be installed as per Section 56-7.11(a-b) and all seams of HVAC or other system components that pass through a regulated abatement work area shall be sealed prior to beginning Phase II B work for each regulated abatement work area on the project. The critical and isolation barriers shall be removed only after satisfactory clearance air sampling results have been obtained.

(4) **Removal of Mounted Objects and Elevator Isolation.** Regulated abatement work area preparation shall also comply with 7.11(c-d).

(5) **Plasticizing.** The ceiling, walls and floor need not be plasticized as per section 56-7.11(e) for manual or chemical removal methods.

(c) **Removal.** Removal of ACM and asbestos material shall proceed as per the requirements of Subpart 56-8.

(d) **Final Cleaning and Clearance Procedures.** Final clean-up and clearance procedures for abatement shall comply with Section 56-9, except that only one stage of cleaning (final) is to be performed. Lockdown encapsulant use shall be consistent with Section 9.1(b).

(e) **Final Waste Removal From the Site.** The requirements of Subpart 56-10 shall apply, once all asbestos project regulated abatement work areas have been completed.

56-11.8 Abandoned Pipe/Duct/Conduit Wrap and Cut Removal. The following Phase II abatement procedures shall apply for wrap and cut removal of asbestos-containing or ACM covered abandoned pipes/ducts/conduits. All other requirements of this Part shall apply:

(a) **Air Sampling and Analysis.** Air sampling and analysis on an asbestos project conducted under this Section shall be conducted in accordance with the requirements of Subpart 56-4 of this Part.

(b) **Regulated Abatement Work Area Preparation.**

(1) **Establishment of Regulated Abatement Work Areas.** Each regulated abatement work area shall be established and signage posted as per the requirements of Section 56-7.4. Each regulated abatement work area shall remain vacated except for certified workers until satisfactory clearance air sampling results have been obtained or the asbestos project is complete.

(2) **Preliminary Preparation.** Regulated abatement work area preparation shall also comply with Section 56-7.1 through Section 7.11(d).

(i) **Exception.** For exterior regulated abatement work areas with ACM, PACM or asbestos material intact, establishment of negative air systems as per Section 56-7.8, and installation of isolation barriers as per Section 7.11(b) is not required. Remote decontamination system enclosures are allowed for exterior regulated abatement work areas.

(3) **Critical Barriers.** Prior to the placement of critical barriers, affected surfaces shall be pre-cleaned using HEPA-filtered vacuum equipment and wet cleaning methods. All critical barriers shall be installed as per Section 56-7.11(a) and all seams of HVAC or other system components that pass through a regulated abatement work area shall be sealed prior to beginning Phase II B work for each regulated abatement work area on the project. The critical and isolation barriers shall be removed only after satisfactory clearance air sampling results have been obtained.

(4) **Limitations.** Full regulated abatement work area enclosure preparation as per Section 56-7.11(e) is not required if the following removal conditions are followed:

(i) The ACM, PACM or asbestos material must be intact, and the wetted pipe/duct/conduit shall be wrapped in two (2) independent layers of at least six (6) mil fire-retardant plastic sheeting and sealed airtight.

(ii) A one-layer dropcloth of at least six (6) mil fire-retardant plastic sheeting shall be utilized below the ACM, PACM or asbestos material during all wrapping operations.

(iii) Cuts for removal of the pipe/duct/conduit or sections thereof shall be performed using glovebag procedures within a negative pressurized tent enclosure, per Section 56-8.4(a).

(c) **Removal.** Removal of the wrapped ACM and asbestos material shall proceed as per the requirements of Subpart 56-8.

(d) **Final Cleaning and Clearance Procedures.** Final clean-up and clearance procedures for abatement shall comply with Section 56-9, except that only one stage of cleaning (final) is to be performed. Lockdown encapsulant use is not required, except as indicated for glovebag procedures.

(e) **Final Waste Removal From the Site.** The requirements of Subpart 56-10 shall apply, once all asbestos project regulated abatement work areas have been completed.

NYC 9/11 Public Portal Document

SUBPART 56-12
MISCELLANEOUS

56-12.1 Severability. If any provision of this Part or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this Part which can be given effect without the valid provisions or applications and to this end the provisions of this Part are declared to be severable.

56-12.2 Variances. The failure by any person or entity performing work on or in connection with an asbestos project, to comply with the terms and conditions of any general or specific variance issued pursuant to Article 2, Section 30 of the Labor Law, from this Part, Article 30 of the Labor Law, or any other applicable statutes, rules or regulations, shall constitute a violation of this Section and shall render the variance itself null and void in regard to such project. Non-refundable fees for variance processing shall be set forth in Article 2, Section 30 of the Labor Law.

56-12.3 Applicable Variances (AVs). Notice of issuance of applicable variances under this Part, Article 30 of the Labor Law or other applicable Sections of State law, shall be published in the State Register and indexed by subject matter and number. Single copies of such variances may be obtained from the local district office of the Asbestos Control Bureau.

56-12.4 Right of Entry. The Commissioner or officers and employees of the Department shall at any time, from commencement to completion of any asbestos project, have the right to enter any part of such project, or at another time for complaint investigation. Refusal to permit such entry may result in application of appropriate penalties set forth in statute and code including enjoining further work on the project.

CITY_21MC100_003246602

NYC-WTC_000438677