



AHERA 3 YEAR REINSPECTION

**MENANDS SCHOOL DISTRICT
MENANDS, NEW YORK**

MENANDS SCHOOL

Prepared for

**MENANDS SCHOOL DISTRICT
19 WARDS LANE
MENANDS, NEW YORK, 12204**

Prepared by

**Professional Service Industries, Inc.
104 Erie Boulevard, Suite 1
Schenectady, New York 12305
Telephone (518) 377-9841**

June 15, 2022

PSI PROJECT NO. 08214812



104 Erie Blvd.
Schenectady, NY 12305
phone: 518-377-9841
intertek.com/building
psiusa.com

June 01, 2022

Menands School District
19 Wards Lane
Menands, New York, 12204

Attention: Mr. Jose Calderon

Subject: AHERA 3 Year Re-Inspection
Menands School
19 Wards Lane
Menands, NY 12204
PSI Project No. 08213380

Dear Mr. Calderon:

Professional Service Industries, Inc. (PSI) performed an AHERA Triennial Re-Inspection for the above-referenced project that you requested. PSI provided its services in general accordance with PSI proposal number 0821-368401 dated March 10, 2022. PSI transmits one electronic copy of the draft report with this letter.

This AHERA 3 -Year inspection should be kept with your AHERA Management Plan.

PSI thanks you for choosing us as your consultant for this project. Please contact us at (518) 377-9841 if you have any questions or we may be of further service.

Respectfully Submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

A handwritten signature in black ink, appearing to read "William A. Kotas".

William A. Kotas
Asbestos Inspector
NYS DOL #. 17-33967

A handwritten signature in black ink, appearing to read "John J. Tranter".

John J. Tranter
Management Planner
NYS DOL # 89-07517

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I. SCOPE OF SERVICES

ASBESTOS THREE YEAR REINSPECTION

Professional Service Industries, Inc. (PSI) was contracted by the Menands School District to provide asbestos consulting services for the ASHERA three-year reinspection of the Menands Central School District. These reinspection services included the Menands School building. This reinspection should be included with the Schools Management Plan.

The scope of work of the reinspection included the following items:

- ◆ Review existing management plan to determine the areas requiring reinspection.
- ◆ Visually re-inspect and reassess the condition of friable known or assumed ACBM.
- ◆ Visually inspect known or assumed non-friable ACBM and determine whether it has become friable.
- ◆ Identify those homogeneous areas which have changed conditions since previous reports of reinspection.
- ◆ Record and submit to the LEA Designated Person, for the purpose of inclusion in the District's Management Plan, within 30 days of the reinspection, the results of reinspection and assessments, name and signature of the state and EPA accredited asbestos inspector.

No sampling of additional materials was requested or provided during the work of this project.

II. INTRODUCTION

General Information

Professional Service Industries, Inc. (PSI) was contracted by the Menands School District to provide asbestos consulting services for the ASHERA three-year reinspection of the Menands School District. These reinspection services included the Menands School building. The field survey was conducted on April 20, 2022, by New York State and EPA Certified Asbestos Inspector Mr. William A. Kotas.

This report has been prepared for the exclusive use of the Menands School District.

Authorization

Authorization to perform this asbestos assessment survey was given by Ms. Kathy Cietek Business Manager of the Menands School District.

Warranty

The information contained in this report is based upon the data furnished by the Client and observations and test results provided by PSI. These observations and results are time dependent, are subject to changing site conditions, and revisions to Federal, State and local regulations.

PSI warrants that these findings have been promulgated after being prepared in general accordance with generally accepted practices in the asbestos testing and abatement industries. PSI also recognizes that raw laboratory test data are not usually sufficient to make all abatement and management decisions.

No other warranties are implied or expressed.

USE BY THIRD PARTIES

This report was prepared pursuant to the contract PSI has with the Menands Central School District. That contractual relationship included an exchange of information about the subject site that was unique and between PSI and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between PSI and its client, reliance or any use of this report by anyone other than the Menands Central School District, for whom it was prepared, is prohibited and therefore not foreseeable to PSI.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third-party beneficiary to PSI's contract with the Menands Central School District. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at third party's risk. For the same reasons,

no warranties or representations, expressed or implied in this report, are made to any such third party.

UNIDENTIFIABLE CONDITIONS

This report is necessarily limited to the conditions observed and to the information available at the time of the work. Due to the nature of the work, there is a possibility that there may exist conditions which could not be identified within the scope of work or which were not apparent at the time of our site work. This report is also limited to information available from the client at the time it was conducted. The report may not represent all conditions at the subject site as it only reflects the information gathered from specific locations.

III. SURVEY METHODOLOGY

General References

Reinspection and reassessment procedures were performed in general accordance with the Guidelines published by the EPA in 40 CFR Part 763, Subpart E, October 30, 1987.

General Inspection Methodology

PSI conducted a walkthrough of all areas identified as containing friable or non-friable ACM including all assumed materials. PSI's accredited inspector physically touched all materials to reassess the friability of identified and assumed ACM. Friable ACM was assessed using the following assessment categories:

Damaged or Significantly Damaged Thermal System Insulation ACM (Assessment Category 1): Thermal system insulation ACM on pipes, boilers, tanks, ducts, and other thermal system insulation equipment where the insulation has lost its structural integrity, or its covering, in whole or in part, is crushed, water stained, gouged, punctured, missing, or not intact such that it is not able to contain fibers. Damage may be further illustrated by occasional punctures, gouges or other signs of physical injury to ACM; occasional water damage on the protective coverings/jackets; or exposed ACM ends or joints. Asbestos debris originating from the ACM in question may also indicate damage.

Damaged Friable Surfacing ACM (Assessment Category 2): Friable surfacing ACM which has deteriorated or sustained physical injury such that the internal structure (cohesion) of the material is inadequate or which has delaminated such that its bond to the substrate (adhesion) is inadequate, or which, for any other reason, lacks fiber cohesion or adhesion qualities. Such damage or deterioration may be illustrated by the separation of ACM into layers; separation of ACM from the substrate; flaking, blistering, or crumbling of the ACM surface; water damage; significant or repeat water stains, scrapes, gouges, mars or other signs of physical injury on the ACM. Asbestos debris originating from the ACM in question may also indicate damage.

Significantly Damaged Friable Surfacing ACM (Assessment Category 3): Damaged friable surfacing ACM in a functional space where the damage is extensive and severe.

Damaged or Significantly Damaged Friable Miscellaneous ACM (Assessment Category 4): Damaged friable miscellaneous ACM where the damage is extensive and severe.

Friable ACM with Potential for Significant Damage (Assessment Category 5):
Circumstances in which:

- (1) Friable ACM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities.
- (2) There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy, or recurrent damage.

(3) The material is subject to major or continuing disturbance, due to factors including, but not limited to accessibility or, under certain circumstances, vibration or air erosion.

Friable ACBM with Potential for Damage (Assessment Category 6): Circumstances in which:

(1) Friable ACBM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities.

(2) There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy, or recurrent damage.

Any Remaining Friable ACBM or Friable Suspect ACM (Assessment Category 7): Friable ACBM or friable suspect ACBM that is in good condition with no significant damage observed.

PSI's inspector cross referenced ACBM quantities and conditions against the observed building materials to identify and record all changes in condition. PSI's accredited Asbestos Management Planner reviewed the results of the reinspection and developed recommended response actions for all known or assumed ACBM.

Management Planner Response Actions

The following management planner response actions were utilized for the AHERA triennial year reinspection at the Menands Central School District:

O&M: Operations and Maintenance Program (OMP): A program of work practices to maintain friable ACBM in good condition, ensure cleanup of asbestos fibers previously released, and prevent further release by minimizing and controlling friable ACBM disturbance or damage.

Repair: The overhauling, rebuilding, reconstructing, or reconditioning of structures, or parts thereof, where asbestos is present.

Removal: The taking out or stripping asbestos or materials containing asbestos.

Enclosure: An airtight, impermeable, permanent barrier around ACBM to prevent the release of asbestos fibers into the air.

Encapsulate: The treatment of ACBM with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant).

IV. FINDINGS

GENERAL

Quantities and/or conditions of identified ACBM or assumed ACBM have changed in the Menands Central School District.

An Asbestos Containing Building Material (ACBM) is defined by 40 CFR Part 763, Subpart E, Asbestos Containing Materials in Schools, as a surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a school.

DISCUSSION

Menands School: PSI noted the following changes to conditions or quantities from the previous reinspection at the Menands School District.

- J -Closet by Room 172 – Quantity of Damage to Leftover Black Mastic changed from 5 square foot to 0 square feet. The mastic was covered with new vinyl floor tile.
- E-01 Exterior Garden Shed- The Quantity of Damage was changed from 0 Sq. Ft to 1 Sq Ft. A single damaged shingle was observed.
- H- Ceramic Wall Tile. The Quantity of Damage was changed from 0 Sq. Ft to 1 Sq Ft. Damaged tiles were observed.

New Construction &Capital Improvements:

PSI understands that capital improvements and new construction have occurred since the last AHERA Triennial Inspection performed by PSI on June 3, 2019, with the report dated June 9, 2019.

PSI requested certification from licensed architect that no Asbestos Containing Materials were used in the capital improvements and new construction. The architect's certification is attached.

Additionally, a new floor plan which includes new building additions is also included in the attachments section.

APPENDIX A

AHERA THREE YEAR REINSPECTION SPREADSHEETS

AHERA THREE YEAR REINSPECTION REPORT
MENANDS SCHOOL DISTRICT
PSI Project No.: 08214812

BUILDING.: Menands School
BUILDING ADDRESS.: 19 Wards Ln, Menands, NY, 12204

Inspection Date: 4-20-22
Inspected By: William Kolas
Certification #: 17-33967
Inspected By:
Certification #:

Inspector Signature: 

Management Planner Signature: 

SPACE ID	DESCRIPTION	MATERIAL DESCRIPTION	FRIABLE (F/NF)	QUANTITY			DAMAGE		COMMENTS	Assess. Category	Response Action
				2019	2022	2019	2022				
C	Crawl space under School	Abandoned Leftover Pipe Insulation	F	6 Sq. Ft.	6 Sq. Ft.	0 Sq. Ft.	0 Sq. Ft.	Divided up into 6 areas (1 Sq Ft per area), Goes into Concrete Block Wall	7	O&M	
1-138	Stage	Black leftover Mastic	NF	23 Sq. Ft.	23 Sq. Ft.	23 Sq. Ft.	23 Sq. Ft.	All Mastic was exposed	-	O&M	
1-108	Nurse's Office	Green Ceramic Wall Tile	NF	300 Sq. Ft.	300 Sq. Ft.	0 Sq. Ft.	0 Sq. Ft.	Present in bathroom and nurses office	-	O&M	
H	All Hallways in School	Ceramic Tile	NF	10000 Sq. Ft.	10000 Sq. Ft.	0 Sq. Ft.	2 Sq. Ft.	Material Not present in North Wing, Crack in tile was observed	-	O&M	
J	Closet by 172	Black leftover Mastic	NF	5 Sq. Ft.	5 Sq. Ft.	5 Sq. Ft.	5 Sq. Ft.	Material was covered with new vinyl floor tile since last inspection	-	O&M	
E-01	Exterior Gardening Shed	Asphalt Roof Shingles	NF	180 Sq. Ft.	180 Sq. Ft.	0 Sq. Ft.	1 Sq. Ft.	Shed was moved to new location in parking lot	-	Repair	

APPENDIX B
PSI & PERSONNEL CERTIFICATIONS

New York State – Department of Labor

Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Professional Service Industries, Inc.

104 Erie Blvd

Schenectady, NY 12305

FILE NUMBER: 99-0046

LICENSE NUMBER: 29878

LICENSE CLASS: RESTRICTED

DATE OF ISSUE: 03/18/2022

EXPIRATION DATE: 03/31/2023

Duly Authorized Representative – John J Tranter:



This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.



Amy Phillips, Director
For the Commissioner of Labor

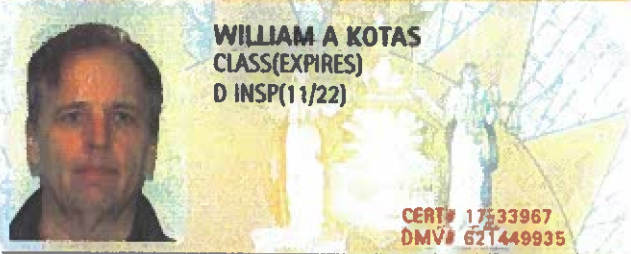
STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE



WILLIAM A KOTAS
CLASS(EXPIRES)
D INSP(11/22)

CERT# 17533967
DMV# 621449935

MUST BE CARRIED ON ASBESTOS PROJECTS



01213 005938648 75

EYES HAZ
HAIR BRO
HGT 5' 11"

IF FOUND RETURN TO:
NYSOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

APPENDIX C
ARCHITECTS CERTIFICATION STATEMENT

August 31, 2017

Mr. Bruce Jesiolowski, Project Manager
Bureau of Facilities Planning
New York State Education Department
Room 1060, Education Building Annex
Albany, NY 12234

Re: **Menands Union Free School District, 2016 Capital Project**
CSArch Project No. 186-1501
SED Control No. 01-06-15-02-0-001-010

Dear Mr. Jesiolowski,

No asbestos-containing materials (ACM) shall be used in construction for the referenced project. The project **will** involve known or suspected ACM at each building, as evidenced by bulk and material testing, and will be abated per Industrial Code Rule #56. The work has been designed by Kevin P. Ellis. A copy of his asbestos designer certificate is attached.

Please contact me at (518) 463-8068 if additional information is required. Thank you in advance for your assistance.

Sincerely,

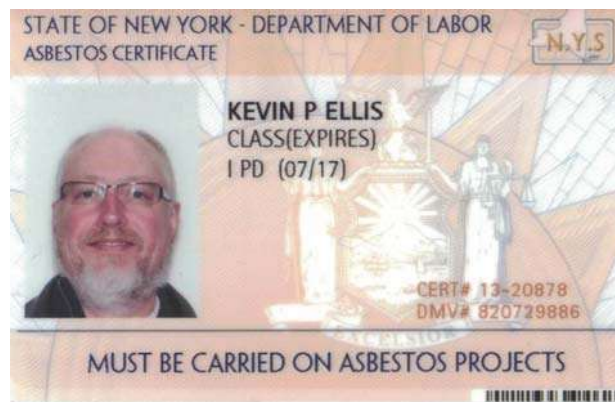
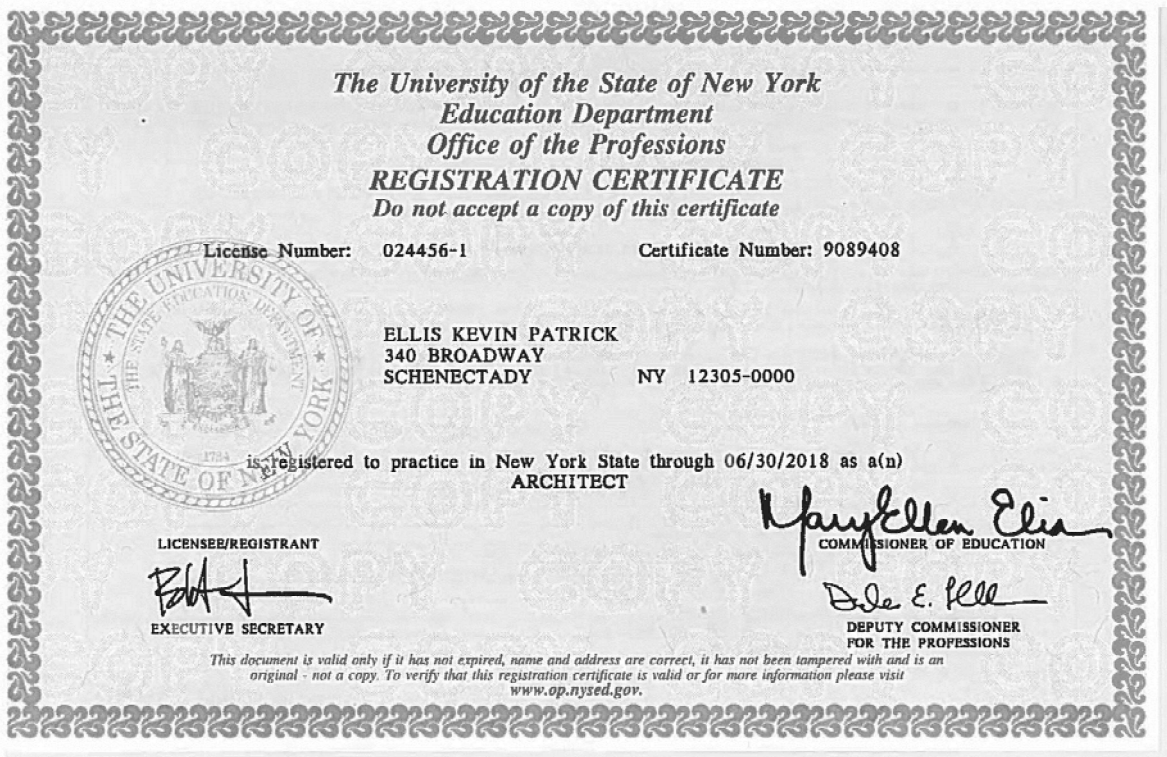
CSArch

Daniel Woodside, AIA
Executive Principal

SECTION 000001.02 -PROJECT CERTIFICATION PAGE

CONSULTANT
ALEC Services, LLC
185 3rd Street
Troy, New York 12180
(518) 268-9895

Kevin Ellis, Asbestos Project Designer/Registered Architect
Donald Alford, Jr. EPA Risk Assessor



New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Alec Services, LLC.
185 3rd St
Troy, NY 12180

FILE NUMBER: 12-66512
LICENSE NUMBER: 66512
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 07/28/2016
EXPIRATION DATE: 07/31/2017

Duly Authorized Representative – Donald Alford, Jr.:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.





Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

END OF SECTION 000001.02


STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE



WILLIAM A KOTAS
CLASS(EXPIRES)
D INSP(11/22)

CERT# 17533967
DMV# 621449935

MUST BE CARRIED ON ASBESTOS PROJECTS



01213 005938648 75


EYES HAZ
HAIR BRO
HGT 5' 11"

IF FOUND RETURN TO:
NYSOL - L&C UNIT
ROOM 161A BUILDING 12
STATE OFFICE CAMPUS
ALBANY NY 12240

New York State Department of Health Certificate of Asbestos Safety Training
This form is the official record of successful completion of a New York State accredited asbestos safety training course.

Certificate No. **904544**

I - To be completed by Trainee

Name of Trainee (print) <u>John J. Tranter</u>		NYS Depart. of Motor Vehicles ID (DMV ID) ¹ <u>164 639 033</u>	
Signature of Trainee 		Telephone Number <u>518-365-1557</u>	Date of Birth ¹ <u>6-14-1962</u>
Address <u>405 Jessamine Lane Schenectady NY 12302</u>			
(Street or PO Box)	(City)	(State)	(Zip Code)

II - To be completed by Training Sponsor

Provider's Name SPECTRUM ENVIRONMENTAL ASSOCIATES, INC.	Telephone Number 518-346-6374
Address 2539 Albany Street Schenectady, NY 12304	
Zip Code 12304	

Course Title: Asbestos Inspector Ref Initial Refresher DOH Equivalency² NYS DOH use only

Training Language: English Other: _____ Exam Grade/Date: 96

Dates of Training: From: 5 12 122 To: 5 12 122 Expires: 5 12 123

I certify that the asbestos safety training course given on the above date complied with both 10 NYCRR Part 73 and TSCA Title II, was consistent with the curriculum and instructors approved by the New York State Department of Health, and the trainee receiving this certificate completed the training course and successfully passed the examination.


Training Director²: W. Massmann (Print)  (Signature) **DEPT. OF LABOR**

DOH-2832 (10/03) ¹ Optional Information ² DOH Equivalency signed by NYS DOH representative only

New York State Department of Health Certificate of Asbestos Safety Training
This form is the official record of successful completion of a New York State accredited asbestos safety training course.

Certificate No. **897558**

I - To be completed by Trainee

Name of Trainee (print) <u>John J. Tranter</u>		NYS Depart. of Motor Vehicles ID (DMV ID) ¹ <u>164 639 033</u>	
Signature of Trainee 		Telephone Number <u>518-365-1557</u>	Date of Birth ¹ <u>6-14-1962</u>
Address <u>405 Jessamine Lane Schenectady NY 12303</u>			
(Street or PO Box)	(City)	(State)	(Zip Code)

II - To be completed by Training Sponsor

Provider's Name BOCES-CAPITAL REGION	Telephone Number 518-464-5115
Address 900 Watervliet-Shaker Road Suite 102 Albany, NY 12205	
Zip Code 12205	

Course Title: Mgt Planner Initial Refresher DOH Equivalency² NYS DOH use only

Training Language: English Other: _____ Exam Grade/Date: 82%

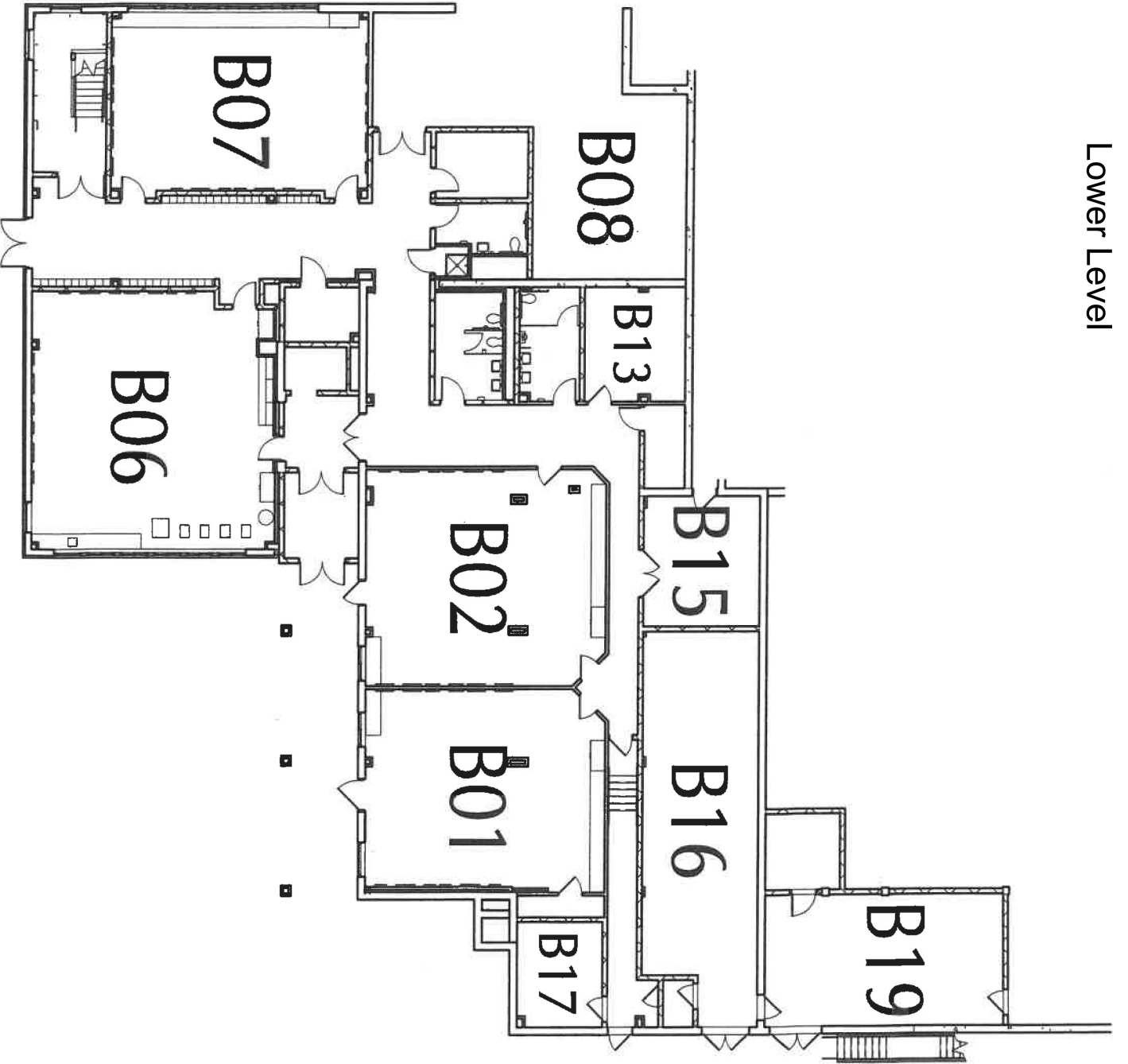
Dates of Training: From: 4 17 122 To: 4 18 122 Expires: 4 18 123

I certify that the asbestos safety training course given on the above date complied with both 10 NYCRR Part 73 and TSCA Title II, was consistent with the curriculum and instructors approved by the New York State Department of Health, and the trainee receiving this certificate completed the training course and successfully passed the examination.

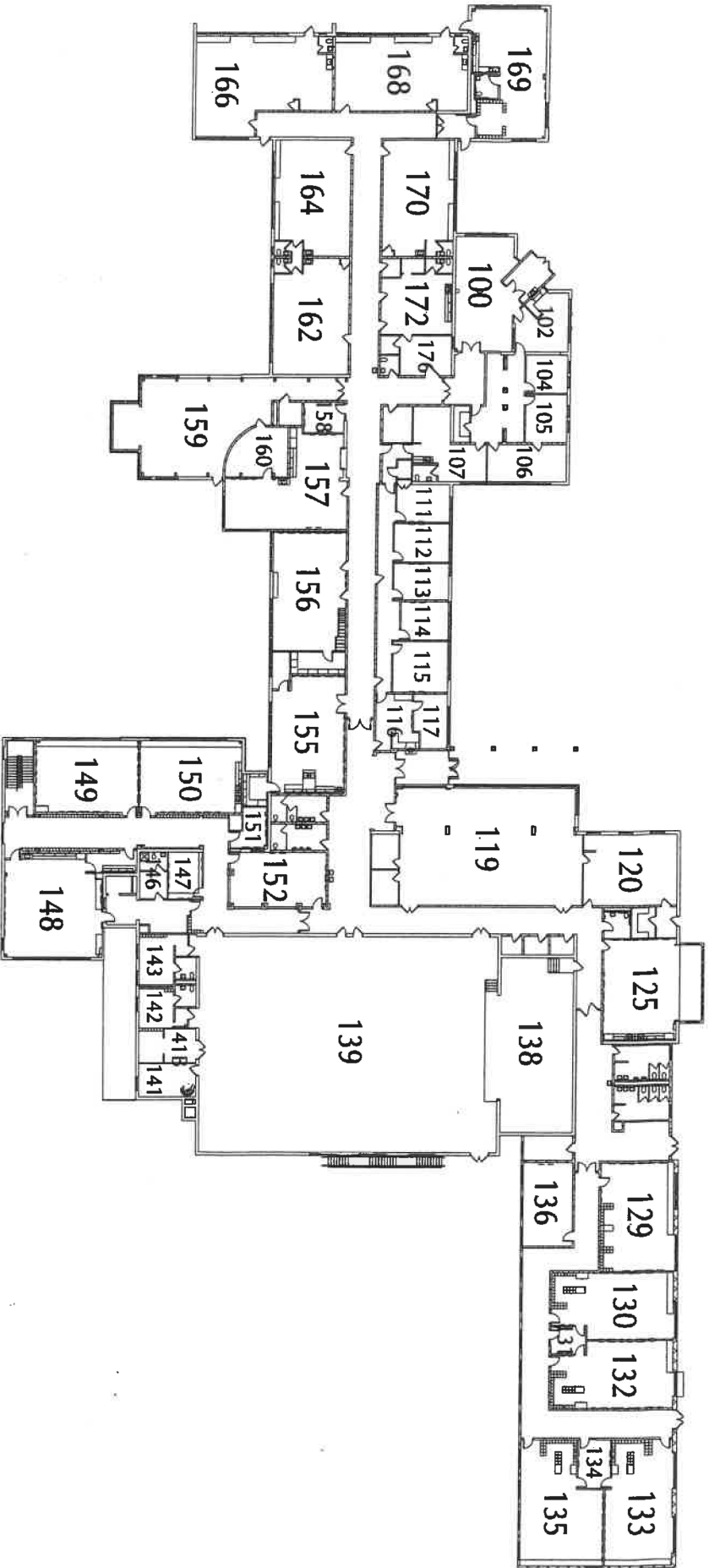
Training Director²: Jennifer Bennett (Print)  (Signature)

APPENDIX D
BUILDING FOOR PLAN

Lower Level



Upper Level



APPENDIX E
GLOSSARY OF TERMS

GLOSSARY OF TERMS

ABIH: American Board of Industrial Hygiene

ACBM: Asbestos-containing building material. Means surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a school building.

Accessible: when referring to ACM, the material is subject to disturbance by school building occupants or custodial or maintenance personnel in the course of their normal activities.

Accredited or accreditation: when referring to a person or laboratory means that such person or laboratory is accredited in accordance with section 206 of Title II of the Act.

Act: Toxic Substances Control Act (TSCA)

Action Level: An airborne concentration of asbestos of 0.1 fiber per cubic centimeter of air (f/cc) calculated as an eight (8)-hour time-weighted average by the method prescribed in Appendix A of this section or an equivalent method.

Active waste disposal site: any disposal site other than an inactive site.

ACM: Asbestos Containing Material. When referring to school buildings means that any material or product which contains more than 1 percent asbestos.

Acoustical Insulation: The general application or use of asbestos for the control of sound due to its lack of reverberant surfaces.

Acoustical Tile: A finishing material in a building usually found in the ceiling or walls for the purpose of noise control.

Adequately Wet: Sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wet.

Aggressive Sampling: Air sampling which takes place after final clean-up while the air is being physically agitated to produce a "worst case" situation.

AIA: Asbestos Information Association.

AIA: American Institute of Architects.

AIA: American Insurance Association.

AIHA: American Industrial Hygiene Association

AIHA Accredited Laboratory: A certification given by the AIHA to an analytical laboratory that has successfully participated in the "Proficiency Analytical Testing" program for quality control as established by the National Institute for Occupational Safety and Health.

Airborne Asbestos Analysis: Determination of the amount of asbestos fibers suspended in a given amount of air.

Air Diffuser: A device designed to disperse an air stream throughout a given area.

Air Erosion: The passage of air over friable ACBM which may result in the release of asbestos fibers.

Air Lock: A system of enclosures consisting of two polyethylene curtained doorways at least three feet apart that does not permit air movement between clean and contaminated areas.

Air Man: An industrial hygienist or other qualified individual who collects air samples and monitors the asbestos abatement worksite.

Air Monitoring: The process of measuring the airborne fiber concentration of a specific quantity of air over a given amount of time.

Air Plenum: Any space used to convey air in a building or structure. The space above a suspended ceiling is often used as an air plenum.

Algorithm: A universally accepted procedure developed for the purpose of solving a particular problem. algorithms developed for asbestos provide a numerical index for evaluating a degree of hazard in a particular area. The Sawyer Algorithm and the Ferris Index are two, but neither are widely used today.

Alveoli: Located in clusters around the respiratory bronchi of the lungs, this is the area in which true respiration takes place.

Ambient Air: The surrounding air or atmosphere in a given area under normal conditions.

Amended Water: Water to which a chemical wetting agent (surfactant) has been added to improve penetration into asbestos-containing materials that are being removed.

Amosite: An Asbestiform mineral of the amphibole group containing approximately 50% silicon and 40% Iron (II) Oxide, and is made up of straight, brittle fibers, light gray to pale brown in color.

Amphibole: One of the two major groups of minerals from which the Asbestiform minerals are derived, distinguished by their chain-like crystal structure and chemical composition.

ANSI: American National Standards Institute

Approved Landfill: A site for the disposal of asbestos-containing and other hazardous wastes that has been given EPA approval.

Asbestiform Minerals: Minerals which, due to their crystal structures and chemical composition, tend to be separated into fibers and can be classified as a form of asbestos.

Aspect Ratio: The length of a fiber vs. its width.

Asbestos: Any of the following asbestiform minerals alone or in combination: chrysotile, amosite, crocidolite, tremolite, anthophyllite, actinolite, and any of these minerals that have been chemically treated and/or altered.

Asbestos Abatement: Procedures to control fiber release from asbestos-containing materials in buildings.

Asbestos Consultant: Any person who contracts to provide professional health and safety services relating to asbestos-containing construction material as defined in this subsection, which comprises 100 square feet or more of surface area. The activities of an asbestos consultant include building inspection, abatement project design, contract administration, sample collection, preparation of asbestos management plans, clearance monitoring, and supervision of site surveillance technicians as defined in this subsection.

Asbestos-containing Construction Material: Any manufactured construction material which contains more than one-tenth of 1 percent asbestos by weight.

Asbestos-containing Waste Materials: Mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

Asbestos Control: Minimizing the generation of airborne asbestos fibers until a permanent solution is developed.

Asbestos Debris: Pieces of ACM that can be identified by color, texture, or composition, or means dust, if the dust is determined by an accredited inspector to be ACM.

Asbestos Exposure Assessment System: A decision tool which can be used to determine the extent of the asbestos hazard that exists in a building, and which can also be used to develop corrective actions.

Asbestos Fibers: Fibers with their length being greater than five microns (length to width ratio of 3:1), generated from an asbestos-containing material.

Asbestosis: A non-malignant, progressive, irreversible lung disease caused by the inhalation of asbestos dust and characterized by diffuse fibrosis.

Asbestos Mill: Any facility engaged in converting, or in any intermediate step in converting, asbestos ore into commercial asbestos. Outside storage of asbestos material is not considered a part of asbestos mill.

Asbestos-related Work: Any activity which by disturbing asbestos-containing construction materials may release asbestos fibers into the air and which is not related to its manufacture, the mining or excavation of asbestos-bearing ore or materials, or the installation or repair of automotive materials containing asbestos.

Asbestos Standard: Reference to the OSHA requirements in the general industry standards regarding asbestos exposure (29 CFR 1910.1001), and EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) (40 CFR 61, subpart M).

Asbestos Tailings: Any solid waste that contains asbestos and is a product of asbestos mining or milling operations.

Asbestos Waste from Control Devices: Any waste material that contains asbestos and is collected by a pollution control device.

Atmospheres Immediately Dangerous to Life or Health: A hazardous atmosphere to which exposure will result in serious injury or death in a matter of minutes or cause serious delayed effects.

Authorized Person: Any person authorized by the employer and required by work duties to be present in regulated areas.

Bridging Encapsulant: The application of a sealant over the surface of asbestos-containing material to prevent the release of asbestos fibers.

Bronchi: Primary branches of the trachea (windpipe).

Bronchogenic Cancer: An abnormal cell growth in the primary branches or the trachea (windpipe).

Cancer: A cellular tumor which normally leads to premature death of its host unless controlled.

Category I Nonfriable Asbestos-Containing Material (ACM): Asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy.

Category II Nonfriable ACM: Any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos as determined by using the methods specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Cementitious: Asbestos-containing materials that are densely packed, granular and are friable.

Certified Site Surveillance Technician: Any site surveillance technician certified by the Division pursuant to this section.

Certified Supervisor: An individual who is capable of identifying asbestos hazards in the workplace and who has sufficient experience and authority to take prompt corrective measures to eliminate them. The duties of the certified supervisor include at least the following: establishing the negative-pressure enclosure, ensuring its integrity, and controlling entry to and exit from the enclosure; supervising any employee exposure monitoring required by this section; ensuring that all employees working within such an enclosure wear the appropriate personal protective equipment, are trained in the use of appropriate methods of exposure control, and use the hygiene facilities and decontamination procedures specified in this section; and ensuring that engineering controls in use are in operating condition and are functioning properly. The certified supervisor is certified to the Division by the employee according to and as required by Section 341.9(a)(4). A certified supervisor need not be a certified asbestos consultant or certified site surveillance technician to perform the above described duties, provided that the certified supervisor is an employee of the registered contractor or registered employer performing the asbestos related work.

CFM: Cubic feet per minute

Chrysotile (White Asbestos): The only asbestiform mineral of the serpentine group which contains approximately 40% each of silica and magnesium oxide. It is the most common form of asbestos used in buildings.

CIH: An industrial hygienist who has been granted certification by the American Board of Industrial Hygiene.

Cilia: Tiny hair-like structures in the windpipe and bronchi of the lung passages that help force undesirable particles and liquids up and out of the lungs.

Clean Area: The first stage of the decontamination enclosure system in which workers prepare to enter the work area.

Commercial Asbestos: Any material containing asbestos that is extracted from ore and has value because of its asbestos content.

Contaminated Items: Any objects that have been exposed to airborne asbestos fibers without being sealed off or isolated.

Contract Specifications: A set of guidelines that a contractor must follow when conducting an asbestos abatement job.

Criteria Documents: NIOSH publications that address toxic materials, analytical methods, personal protective equipment, etc.

Curtained Doorway: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing two overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, securing the vertical edge of one sheet along one vertical side of the doorway and securing the vertical edge of the other sheet along the opposite side of the doorway.

Cutting: Penetrate with a sharp-edged instrument and includes sawing, but does not include shearing, slicing, or punching.

Damaged Friable Miscellaneous ACM: Friable miscellaneous ACM which has deteriorated or sustained physical injury such that the internal structure (cohesion) of the material is inadequate or, if applicable, which has delaminated such that its bond to the substrate (adhesion) is inadequate or which for any other reason lacks fiber cohesion or adhesion qualities. Such damage or deterioration may be illustrated by the separation of ACM into layers; separation of ACM from the substrate; flaking, blistering, or crumbling of the ACM surface; water damage; significant or repeated water stains, scrapes, gouges, mars or other signs of physical injury on the ACM. Asbestos debris originating from the ACM in question may also indicate damage.

Damaged Friable Surfacing ACM: Friable surfacing ACM which has deteriorated or sustained physical injury such that the internal structure (cohesion) of the material is inadequate or which has delaminated such that its bond to the substrate (adhesion) is inadequate, or which, for any other reason, lacks fiber cohesion or adhesion qualities. Such damage or deterioration may be illustrated by the separation of ACM into layers; separation of ACM from the substrate; flaking, blistering, or crumbling of the ACM surface; water damage; significant or repeated water stains, scrapes, gouges, mars or

other signs of physical injury on the ACM. Asbestos debris originating from the ACBM in question may also indicate damage.

Damage or Significantly Damaged Thermal System Insulation ACM: Thermal system insulation ACM on pipes, boilers, tanks, ducts, and other thermal system insulation equipment where the insulation has lost its structural integrity, or its covering, in whole or in part, is crushed, water stained, gouged, punctured, missing, or not intact such that it is not able to contain fibers. Damage may be further illustrated by occasional punctures, gouges or other signs of physical injury to ACM; occasional water damage on the protective coverings/jackets; or exposed ACM ends or joints. Asbestos debris originating from the ACBM in question may also indicating damage.

Decontamination: A series of connected rooms with polyethylene enclosure system curtained doorways for the purpose of preventing contamination of areas adjacent to the work area.

Decontamination Area: An enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment contaminated with asbestos.

Delaminate: To separate into layers. As used here, to separate from the substrate.

Demolition: The wrecking or taking out of any load-supporting structural member and any related razing, removing, or stripping of asbestos products.

Director: The Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

Dirty Area: Any area in which the concentration of airborne asbestos fibers exceeds 0.01 f/cc, or where there is visible asbestos residue.

Dispersion Staining: Used in conjunction with polarized light to identify bulk samples. A particle (fiber) identification technique based on the difference between light dispersion of a particle (fiber) and liquid medium in which it is immersed.

Division: The Division of Occupational Safety and Health of the California Department of Industrial Relations.

Duct Tape: Heavy gauge tape capable of sealing joints or adjacent sheets of polyethylene.

Dusk Mask: Single use or disposable dust respirator with a low protection factor.

Electron Microscopy: A method of asbestos sample analysis which utilizes an electron beam to differentiate between fibers.

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

Employee Exposure: Exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment. Whenever the term exposure is used in this section it refers to exposure of employees.

Employee Notification: Informing employees or building occupants if asbestos is present in the building, also informing them of the hazards associated with asbestos exposure, what is being done to eliminate the problem, etc.

Employer's Liability: Legal responsibility imposed on an employer requiring him/her to pay damages to an injured employee.

Encapsulant (sealant): A substance applied to asbestos-containing material which controls the release of airborne asbestos-fibers.

Encapsulation: The treatment of ACBM with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (bridging encapsulant) or penetrates the material and binds its components together (penetrating encapsulant).

Enclosure: An airtight, impermeable, permanent barrier around ACBM to prevent the release of asbestos fibers into the air.

EPA: Environmental Protection Agency

EPA Regulations: Regulatory standards which cover emissions into the outside environment from a workplace and disposal of hazardous wastes from job sites.

Equipment Room (Change Room): A contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

Fabricating: Any processing (e.g. cutting, sawing, drilling) of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites (field fabricating) for the construction or restoration of facilities. In the case of friction products, fabricating includes bonding, debonding, grinding, sawing, drilling, or other similar operations performed as part of fabricating.

Facepiece: The portion of a respirator which covers the wearer's nose, mouth, and eyes in a full facepiece.

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

Facility Component: Any part of a facility including equipment.

Fallout: The intermittent release of fibers which occurs as a result of weakened bonds in the material, or because of deterioration.

F/CC: Fibers per cubic centimeters of air.

Fiber: A particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.

Fiber Releasability: The potential for generation of airborne fibers from an asbestos-containing source.

Fiber Release Episode: Any uncontrolled or unintentional disturbance of ACBM resulting in visible emission.

Fibrosis: A condition of the lungs caused by the inhalation of excessive amounts of fibrous dust marked by the presence of scar tissue.

Fibrous: Composed almost entirely of fibers.

Fibrous Aerosol Monitor (FAM): A portable survey instrument with the capability of providing instantaneous airborne fiber concentration readings.

Fireproofing: Spray-on trowel-applied fire resistant materials.

Friable: When referring to material in a school building means that the material, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure, and includes previously nonfriable material after such previously nonfriable material becomes damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.

Friable Asbestos: Any material containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763 section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

Fugitive Source: Any source of emissions not controlled by an air pollution control device.

Full Facepiece Respirator: A respirator which covers the wearer's entire face from the hairline to below the chin.

Functional Space: A room, group of rooms, or homogeneous area (including crawl spaces or the space between a dropped ceiling and the floor or roof deck above), such as classroom(s), a cafeteria, gymnasium, hallway(s), designated by a person accredited to prepare management plans, design abatement projects, or conduct response actions.

Glove bag: A manufactured or fabricated device consisting of a bag constructed of a minimum thickness of 6 mil plastic or other impervious material, two inward-projecting long-sleeve gloves impervious to asbestos fibers, one inward-projecting water-wand sleeve, and an attached, labeled receptacle for asbestos waste. The glove bag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and contains the asbestos fibers released during the removal process. The glove bag may be modified to accommodate other tools and work practices as long as it remains sealed.

Glove-box (bag): Plastic enclosure placed around a specific operation such as a valve to contain small areas of materials for asbestos removal.

Grinding: To reduce to powder or small fragments and includes mechanical chipping or drilling.

Ground Fault Circuit Interrupter: A circuit breaker that is sensitive to very low levels of current leakage from a fault in an electrical system.

Ground Fault Interrupter: A device which automatically de-energizes any high voltage system component which has developed a fault in the ground line.

Half Mask High Efficiency: A respirator which covers one-half of the wearer's face and is equipped with filter capable of screening out 99.97% of all particles larger than 0.3 microns.

Heat Stress: A bodily disorder associated with exposure to excessive heat.

HEPA: High Efficiency Particulate Air (Air Filter). A filter capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.

HEPA Filtered Vacuum: A high efficiency particulate air (HEPA) filtered vacuum capable of trapping and retaining 99.97% of all particulates larger than 0.3 microns.

Holding Area: The airlock between the shower room and the clean room in a worker decontamination system.

Homogenous: Evenly mixed and similar in appearance and texture throughout.

Homogeneous Area: An area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color and texture.

HVAC System: Heating, Ventilation, and Air Conditioning system usually found in large business and industry facilities.

Inactive Waste Disposal Site: Any disposal site or portion of it where additional asbestos-containing waste material has not been deposited within the past year.

Incident: Any unanticipated event which causes, or is immediately likely to cause, an exposure of an employee, unprotected by an appropriate respirator, to asbestos fibers in excess of the PEL and/or excursion limit.

Industrial Hygienist: A professional qualified by education, training, and experience to recognize, evaluate, and develop controls for occupational health hazards.

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

Leak-tight: Solids or liquids cannot escape or spill out. It also means dust-tight.

Local Education Agency: Means:

(1) Any local educational agency as defined in section 198 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 3381).

(2) The owner of any nonpublic, nonprofit elementary, or secondary school building.

(3) The governing authority of any school operated under the defense dependents' education system provided for under the Defense Dependents' Education Act of 1978 (20 U.S.C. 921, et seq.).

Local Exhaust Ventilation: The mechanical removal of air contaminants from a point of operation.

Logbook: An official record of all activities which occurred during a removal project.

Lung Cancer: An uncontrolled growth of abnormal cells in the lungs which normally results in the death of the host.

Make-up Air: Supplied or recirculated air to offset that which has already been exhausted from an area.

Malfunction: Any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of asbestos are increased. Failures of equipment shall not be considered malfunctions if they are caused in any way by poor maintenance, careless operation, or any other preventable upset conditions, equipment breakdown, or process failure.

Manufacturing: The combining of commercial asbestos-or, in the case of woven friction products, the combining of textiles containing commercial asbestos-with any other material(s), including commercial asbestos, and the processing of this combination into a product. Chlorine production is considered a part of manufacturing.

MCEF: Mixed Cellulose Ester Filter which is one of several different types of media used to collect asbestos air samples.

Medical Examinations: An evaluation of a person's health status conducted by a medical doctor.

Medical History: A record of a person's past health record, including all the hazardous materials that they have been exposed to and also any injuries or illnesses which might dictate their future health status.

Mesothelioma: A relatively rare form of cancer which develops in the lining of the pleura or peritoneum with no known cure.

Method 7400: NIOSH sampling and analytical method for fibers using phase-contrast microscopy. Replaces method P & CAM 239.

Micron: One millionth of a meter.

Mil: Prefix meaning one-thousandth.

Millimeter: One-thousandth of a meter.

Mineral Wool: A commonly used substitute for asbestos.

Miscellaneous ACM: Miscellaneous material that is ACM in a school building.

Miscellaneous Material: Interior building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and does not include surfacing material or thermal system insulation.

MSDS: Material Safety Data Sheet

Natural Barrier: A natural object that effectively precludes or deters access. Natural barriers include physical obstacles such as cliffs, lakes or other large bodies of water, deep and wide ravines, and mountains. Remoteness by itself is not a natural barrier.

Negative Pressure: An atmosphere created in a work area enclosure such that airborne fibers will tend to be drawn through the filtration system rather than leak out into the surrounding areas. The air pressure inside the work area is less than that outside the work area.

NESHAP: National Emission Standards for Hazardous Air Pollutants - EPA Regulation 40 CFR subpart M, part 61.

NIOSH: The National Institute for Occupational Safety and Health which was established by the Occupational Safety and Health Act of 1970.

NIOSH: The official approving agency for respiratory protective equipment who test and certify respirators.

Nonfriable: Material in a school building which when dry may not be crumbled, pulverized, or reduced to powder by hand pressure.

Nonfriable Asbestos-Containing Material: Any material containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763m section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

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

Numerical Value: Refers to the types and percentages of asbestos present in a given sample.

Operations and Maintenance Program (OMP): A program of work practices to maintain friable ACM in good condition, ensure cleanup of asbestos fibers previously released,

and prevent further release by minimizing and controlling friable ACBM disturbance or damage.

OSHA: The Occupational Safety and Health Administration which was created by the Occupational Safety and Health Act of 1970; serves as the enforcement agency for safety and health in the workplace environment.

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

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

Particulate Asbestos Material: Finely divided particles of asbestos or material containing asbestos.

PAT Samples: Proficiency Analytical Testing of asbestos samples conducted through NIOSH for laboratories involved with the analysis of asbestos samples.

P & CAM 239: A NIOSH sampling and analytical method for measuring airborne fibers using phase contrast microscopy.

PCM: Phase Contrast Microscopy.

PEL: Permissible Exposure Limit as stated by OSHA.

Penetrating Encapsulant: Liquid material applied to asbestos-containing material to control airborne fiber release by penetrating into the material and binding its components together.

Peritoneum: The thin membrane that lines the surface of the abdominal cavity.

Personal Protective Equipment (PPE): Any material or device worn to protect a worker from exposure to, or contact with, any harmful material or force.

Personal Sample: An air sample taken with the sampling pump directly attached to the worker with the collecting filter placed in the worker's breathing zone.

Personal Protection: Notification and instruction of all workers prior to the beginning of a project as to the hazards associated with the job and what they can do to protect themselves from these hazards.

PF: Protection factor is provided by the respirator which is determined by dividing the airborne fiber concentration outside of the mask by the concentration inside the mask.

Phase Contrast Microscopy (PCM): An optical microscopic technique used for the counting of fibers in air samples, but which does not distinguish fiber types.

Pipe Lagging: The insulation or wrapping around a pipe.

Planned Renovation Operations: A renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

Pleura: The thin membrane surrounding the lungs, and which lines the internal surface of the chest cavity.

Polarized Light Microscopy (PLM): An optical microscopic technique used to distinguish between different types of asbestos fibers by their shape and unique optical properties.

Polyethylene: Plastic sheeting which is often used to seal off an area in which asbestos removal is taking place for the purpose of preventing contamination of other areas.

Posting: Refers to caution or warning signs which should be posted in any area in which asbestos removal is taking place, or where airborne fiber levels may present a health hazard.

Potential Damage: Circumstances in which:

(1) Friable ACM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities.

(2) There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy, or recurrent damage.

Potential Significant Damage: Circumstances in which:

(1) Friable ACM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities.

(2) There are indications that there is a reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in operations and maintenance practices, changes in occupancy, or recurrent damage.

(3) The material is subject to major or continuing disturbance, due to factors including, but not limited to accessibility or, under certain circumstances, vibration or air erosion.

Pre-Construction Conference: A meeting held before any work begins between the contractor and the building owner at which time the job specifications are discussed and all details of the work agreed upon.

Pre-Employment Physical: Complete medical examination of an employee before the job begins to determine whether or not he/she is fit to perform the functions of their employment.

Preventive Measures: Actions taken to reduce disturbance of ACBM or otherwise eliminate the reasonable likelihood of the material's becoming damaged or significantly damaged.

Progress Payments: A pre-work agreement whereby the building owner pays the contractor after completion of certain phases of the project.

Protective Clothing: Protective, lightweight garments worn by workers performing asbestos abatement to keep gross contamination off the body.

Pulmonary: Pertaining to, or affecting the lungs, or some portion thereof.

Pulmonary Function Tests: A part of the medical examination required to determine the health status of a person's lungs.

Qualified Person: The individual required for the purpose of registration in accordance with Labor Code Section 6501.5 of asbestos-related work involving 100 square feet or more, as defined in subsection 341.6(a). of asbestos-containing materials. The qualified person is the individual identified by the employer to the Division pursuant to subsection 341.9(a)(5), who is responsible for conducting air sampling required by this section, calibration of air sampling equipment, evaluation of sampling results and respiratory fit testing, as well as the evaluation of those tests. The qualified person performs or is responsible for the tasks outlined in subsection 1529(o)(5)(B). A qualified person need not be a certified asbestos consultant or certified site surveillance technician to perform the above described activities, provided that the qualified person is an employee of the registered contractor or registered employer performing the asbestos-related work.

Qualitative Fit Test: A method of testing a respirator's face-to-facepiece seal by covering the inhalation or exhalation valves and either breathing in or out to determine the presence of any leaks.

Random Sample: A sample drawn in such a way that there is no set pattern and is designed to give a true representation of the entire population or area.

Record Keeping: Detailed documentation of all program activities, decisions, analyses, and any other pertinent information to a project.

Regulated Area: An area demarcated by the employer in order to establish where airborne concentrations of asbestos exceed, or can reasonably be expected to exceed, the PEL and /or excursion limit. The regulated area may take the form of (1) a temporary enclosure, as required by subsection (e)(2) of this section, or (2) an area demarcated in any manner that minimizes the number of employees exposed to asbestos.

Regulated Asbestos-Containing Material (RACM): Means (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

Reintrainment: The disturbance of fibers already separated from the main body so that they re-suspend into the atmosphere after having initially settled.

Removal: The taking out or stripping asbestos or materials containing asbestos.

Remove: To take out RACM or facility components that contain or are covered with RACM from any facility.

Renovation: The modifying of any existing structure, or portion thereof, where exposure to airborne asbestos may result.

Repair: The overhauling, rebuilding, reconstructing, or reconditioning of structures, or parts thereof, where asbestos is present.

Resilient Floor Covering: Asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than 1 percent asbestos as determined using polarized light microscopy according to the method specified in appendix A, subpart F, 40 CFR part 763, Section 1, Polarized Light Microscopy.

Resolution: The ability to distinguish between individual objects, as with a microscope.

Resolve: to distinguish different objects with a microscopy.

Respirable: Breathable.

Respiratory Program: A written program established by an employer which provides for the safe use of respirators on their job sites.

Response Action: A method, including removal, encapsulation, enclosure, repair, operations and maintenance, that protects human health and the environment from friable ACBM.

Resuspension: The secondary dispersal or re-entrainment of settled fibers which have previously been released by impact or fallout.

Rip-Out: The actual removal of asbestos-containing materials from a building.

Risk: The likelihood or probability of developing a disease, or being hurt, as the result of exposure to a contaminant or a condition.

Roadways: Surfaces on which vehicles travel. This term includes public and private highways, roads, streets, parking areas, and driveways.

Routine Maintenance Area: An area, such as a boiler room or mechanical room, that is not normally frequented by students and in which maintenance employees or contract workers regularly conduct maintenance activities.

School: Any elementary or secondary school as defined in section 198 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 2854).

School Building: Means:

(1) Any structure suitable for use as a classroom, including a school facility such as a laboratory, library, school eating facility, or facility used for the preparation of food.

(2) Any gymnasium or other facility which is specially designed for athletic or recreational activities for an academic course in physical education.

(3) Any other facility used for the instruction or housing of students or for the administration of educational or research programs.

(4) Any maintenance, storage, or utility facility, including any hallway, essential to the operation of any facility described in this definition of "school building" under paragraphs (1), (2), or (3).

(5) Any portico or covered exterior hallway or walkway.

(6) Any exterior portion of a mechanical system used to condition interior space.

Serpentine: One of the two major groups of minerals from which the asbestiform minerals are derived, distinguished by their tubular structure and chemical composition.

Shower Room: A room between the clean room and the equipment room in a worker decontamination system in which workers take showers when leaving the work area.

Significantly Damaged Friable Miscellaneous ACM: Damaged friable miscellaneous ACM where the damage is extensive and severe.

Significantly Damaged Friable Surfacing ACM: Damaged friable surfacing ACM in a functional space where the damage is extensive and severe.

Site Surveillance Technician: Any person who acts as an independent on-site representative of an asbestos consultant. The site surveillance technician monitors the asbestos abatement activities of others, provides asbestos air monitoring services for area and personal samples, and performs building surveys and contract administration at the direction of an asbestos consultant.

Small-Scale, Short-Duration Activities: For the purposes of this section, small-scale, short-duration activities are operations for which a negative pressure enclosure is infeasible, impractical, or unsafe due to the small size of the task. Examples of these are tasks such as, but not limited to: removal of asbestos-containing insulation from short sections of pipes; removal of small quantities of asbestos-containing insulation on beams or above ceilings; replacement of an asbestos-containing gasket on a valve; installation or removal of small sections of drywall; roofing; other general building maintenance; and installation of electrical conduits through or proximate to asbestos-containing materials.

Spirometer: An instrument which measures the volume of air being expired from the lungs.

Structural Member: Any load-supporting member such as beams and load supporting walls of a facility.

State: A State, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Northern Marianas, the Trust Territory of the Pacific Islands, and the Virgin Islands.

State-of-the-Art: State-of-the-art asbestos abatement and control work procedures are those procedures currently in use which have been demonstrated to be the most effective, reliable, and protective of workers' health. As new procedures are developed which demonstrate greater effectiveness, reliability, and worker protection and thereby come into use, they become the state-of-the-art.

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

Structural Member: Any load supporting member of a facility, such as beams and load supporting wall; or any nonload-supporting member, such as ceilings and nonload-supporting walls.

Substrate: The materials or existing surface located under or behind the asbestos-containing material.

Surfacing ACM: Surfacing material that is ACM.

Surfacing Material: Material in a school building that is sprayed-on, troweled-on, or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes.

Surfactant: a chemical wetting agent added to water to improve its penetration abilities into asbestos-containing materials.

Thermal System Insulation: Material in a school building applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

Thermal System Insulation ACM: Means thermal system insulation that is ACM.

TLV: Levels of contaminants established by the American Conference of Governmental Industrial Hygienists to which it is believed that workers can be exposed to with minimal adverse health effects.

Transmission Electron Microscopy (TEM): A method of microscopic analysis which utilizes an electron beam that is focused onto a thin sample. As the beam penetrates (transmits) through the sample, the difference in densities produces an image on a fluorescent screen from which samples can be identified and counted.

Tumor: A swelling or growth of cells and tissues in the body which does not serve a useful purpose.

TWA: Time Weighted Average, as in air sampling.

USEPA: United States Environmental Protection Agency

Vermiculite: A micaceous mineral that is sometimes used as a substitute for asbestos which is lightweight and highly water-absorbent.

Vibration: The periodic motion of friable ACBM which may result in the release of asbestos fibers.

Visible Emissions: Any emissions, which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material, or from any

asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor.

Visual Inspection: A walk-through type of inspection of the work area to detect incomplete work, damage, or inadequate cleanup of a worksite.

Washroom: A room between the work area and the clean room in the equipment decontamination enclosure system where workers shower.

Waste Generator: Any owner or operator of a source covered by this subpart whose act or process produces asbestos-containing waste material.

Waste Shipment Record: The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

Water Damage: Deterioration or delamination of ceiling or wall materials due to leaks from plumbing or cracks in the roof.

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

Wetting Agents: Materials that are added to water which is used for wetting the asbestos-containing material in order for the water to penetrate more effectively.

Worker's Compensation: A system of insurance required in some states by law, financed by employers, which provides payments to employees or their families for occupational injuries, illnesses, or fatalities resulting in loss of wage or income incurred while at work.

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