

**Asbestos Hazard Emergency Response Act
Three-Year Reinspection
For Sarah Noble Intermediate School**

**For Compliance with
State of Connecticut, Department of Public Health
Regulation Regarding Asbestos-Containing Material in Schools
(19a - 333-1 through 19a - 333-13)
and
The EPA Asbestos Hazard Emergency Response Act
(AHERA, 40 CFR Part 763)**

**New Milford Public Schools
New Milford, Connecticut**

October 2008



**Fuss & O'Neill EnviroScience, LLC
56 Quarry Road
Trumbull, Connecticut 06611**



FUSS & O'NEILL
EnviroScience, LLC

Disciplines to Deliver

October 8, 2008

Mr. John Calhoun
Facilities Manager
New Milford Public Schools
386 Danbury Road
New Milford, CT 06776

**RE: Three Year AHERA Asbestos Re-Inspection
And Management Plan Update
Sarah Noble Intermediate School
25 Sunny Valley Road, New Milford, CT
Fuss & O'Neill EnviroScience Project No. 20071230.A1E**

Dear Mr. Calhoun:

Enclosed is the report of the three-year AHERA asbestos re-inspection and management plan update conducted by Fuss & O'Neill EnviroScience, LLC (EnviroScience) at Sarah Noble Intermediate School located at 25 Sunny Valley Road in New Milford, Connecticut. This report is an important document that must be kept on file at the school as well as at a central location where the Management Plans are maintained.

Attached please find the Three Year Re-inspection Form. This form requires your signature and must be forwarded to the Connecticut Department of Public Health. Retain a copy of the signed form in your Management Plan. Additionally, you will need to sign the bottom of each Re-Inspection Form 2 (Appendix C). Please remember to provide annual refresher training for custodial staff. If any new custodians are hired, they must be trained in Asbestos Awareness within sixty days of hire. Also, please continue to send out annual notifications to parents, teachers, school staff, etc.

If you have any questions regarding this report, please do not hesitate to contact us. Thank you for this opportunity to have served your environmental needs.

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New York
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Sincerely,

Matthew Myers
Senior Project Manager

Neal B. Freuden
President

KM/nw

Enclosure

**ASBESTOS HAZARD EMERGENCY RESPONSE ACT
THREE-YEAR REINSPECTION AND MANAGEMENT PLAN UPDATE
FOR SARAH NOBLE INTERMEDIATE SCHOOL**

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1.0 INTRODUCTION

This three-year re-inspection of Sarah Noble Intermediate School in New Milford, Connecticut was conducted in accordance with the State of Connecticut Department of Public Health Regulation regarding Asbestos Materials in Schools (19a-331-1 through 19a-333-13) and the Asbestos Hazard Emergency Response Act (AHERA) 40 CFR 763.85 (b). Kevin McCarthy of Fuss & O'Neill EnviroScience, LLC (EnviroScience) performed the re-inspection on April 1, 2008. Mr. McCarthy is an accredited Asbestos Consultant - Inspector in the State of Connecticut (License No. 000586). During the re-inspection, the following required tasks were performed.

1. A visual re-inspection and reassessment of all friable known or assumed asbestos-containing building materials (ACBM).
2. A visual re-inspection of ACBM, that was previously considered non-friable, to determine if the present condition of the material has been rendered friable.
3. Identification and assessment of any homogeneous area that contained new friable ACBM.

2.0 BUILDING AND MECHANICAL SYSTEM DESCRIPTION

The Sarah Noble Intermediate School replaced the New Milford High School in approximately 2001. The original building was built in 1962, with additions constructed in 1969, 1986, and in 1999. The original building is constructed on a slab foundation with brick outer walls and a corrugated steel frame. The inner walls are constructed of cinder block. A suspended ceiling exists in most of the building, resulting in ceiling plenum space, with water pipes and air ducts located near the ceiling deck. Ventilation is provided by an air handling system which draws air into return ducts and supplies air by means of air handling units located in the roof, forcing air into each room by means of supply ducts. The administration offices are serviced by a central air conditioning system, independent of the main air handling system.

All areas of the school are serviced by a central boiler room. Heat is provided by two oil burning boilers, which convey heat through steam pipes that traverse the building through the pipe tunnels. The upper gymnasium and the administration offices are heated by a separate system of hot water heat. The pipe tunnels begin at the boiler room and are located below grade, throughout the perimeter of the building, branching up to the baseboard radiators located in each of the rooms. The pipe insulation and associated piping have been removed in the majority of the pipe tunnels.

The conversion of the New Milford High School into Sarah Noble Intermediate School involved extensive asbestos abatement. Abatement involved the removal of floor tile and associated mastic, pipe fitting insulation, transite science table tops, sinks, test tube racks, and hoods, transite panels, interior radiator insulating paper, and exterior window glazing compounds from throughout the building.

The pipe fitting insulation located in the 1970's building remains and was determined to be none detected for asbestos content during the pre-renovation hazardous material inspection.

3.0 RE-INSPECTION REPORT

3.1 Re-inspection Summary

The on-site portion of the re-inspection was documented on forms modeled after examples provided by the United States Environmental Protection Agency (EPA) and reviewed by the State of Connecticut Department of Public Health.

The first form, **Re-inspection Form 1A**, abstracts inspection data gathered during the initial AHERA inspection (see Appendix B). This form is useful to reference response actions (if any) which have been performed since the last inspection. It additionally provides the inspector a “quick glance” reference when performing the re-inspection.

The second EPA form, **Re-inspection Form 1B**, is used to list all known or assumed asbestos-containing materials (ACM) that were previously unidentified. No new ACM was identified during this three year re-inspection, thus Form 1B is not included in this report.

The third EPA form, **Re-inspection Form 2**, was used to provide information and justification regarding reassessment of the ACM (see Appendix C). This form also provides response action information including a tentative schedule for completing any required response actions.

Using the USEPA protocol and criteria, the following material has been **determined to be ABCM** and was present in Sarah Noble Intermediate School at the time of this three-year re-inspection.

Please refer to the above mentioned Re-inspection Forms for specific locations.

MATERIAL	LOCATION	REFERENCE	ASBESTOS CONTENT
Brown mastic for blackboards and tackboards – (material enclosed within sheetrock walls)	Hallway wall in rooms 156, 155, 154, 153, 157, 214, 212, 208, 206, 207, 202, 110, 108, 106A, 106, 104, 102A, 101, 103, 105, 107, 109, 111, 113; south wall of rooms 158, 202, 103; north wall of room 110, northwest corner of room 103, hallway in back of room 158	EnviroScience Asbestos Abatement Project Monitoring Report – December 2000	Unknown asbestos content

The information obtained during this re-inspection was transmitted to Mr. Matthew Myers, an accredited Management Planner, so that response actions relative to the condition of the ACM could be designed. Mr. Myers is a licensed Asbestos Management Planner in the State of Connecticut (License No. 000041).



3.2 Newly Identified or Re-sampled ACBM Materials

Destructive, localized demolition measures to access potential ACBM were not employed by EnviroScience as part of this inspection. Should suspect ACBM be encountered during renovation or maintenance activities, they should be considered to be ACBM until laboratory results prove otherwise. The following suspect materials may be located in the school in inaccessible areas or were not sampled due to the destructive nature of testing;

- Blackboards, tack boards, bulletin boards, mirrors, water fountains, and associated mastics
- Thermal system insulation (TSI) in walls/chases, boilers, above fixed ceilings, etc.
- Ceramic tile grout/mastic
- Sectional wall glues
- Fire doors
- Counter adhesive(s)
- Flooring materials/adhesives under fixed building components (i.e. cabinets, sheetrock walls, etc.)
- Wiring insulation at stage lighting
- Kilns located in art rooms
- Vapor barrier/tar paper located below wood flooring

THROUGHOUT 1999/2000 BUILDING RENOVATION AREAS:

Suspect asbestos containing materials were observed during this three year re-inspection throughout the 1999/2000 building renovation areas of the school. MSD sheets must be obtained and insert into Appendix J displaying that asbestos is not present in the materials or the material must be sampled to determine asbestos content, otherwise the materials need to be placed on the management plan for Sarah Noble Intermediate School:

- 12"x12" floor tile – various colors and associated yellow mastic
- Grey leveling compound
- Science table tops, sinks, test tube racks, and hoods
- Cove base – various colors and cove base adhesives – white colored
- Stair treads and associated adhesives
- Carpet adhesives
- Ceiling tiles – various styles and sizes
- Sheetrock and associated taping compound
- Newer window sills
- Any additional visible, suspect materials located in the new construction cafeteria area



DISCLAIMER:

ADDITIONAL INFORMATION:

- Newer and older building materials that typically do not contain asbestos were found within the building. Newer ceiling tiles, sheetrock and joint compound, countertops, adhesives, ceramic grout, textured paint, carpet adhesive and gymnasium wall adhesive were found. The Owner must obtain MSD sheets for building materials installed recently or analyze building materials for asbestos content or assume they contain asbestos.
- Pipe and/or pipe fitting insulation may exist in areas inaccessible during this inspection (i.e., within walls, pipe chases, above fixed ceilings).
- ACM floor tile and associated mastics may exist below non-moveable objects such as cabinets, platforms, sheetrock walls, lockers, etc.
- ACM transite paneling may exist behind sheetrock walls and ceilings throughout the school building
- Black water proofing material attached to interior of the exterior block is a possible ACM and must be sampled if material is to be disturbed.
- Exterior building materials not covered under AHERA, such as caulking and glazing compounds, roofing materials and materials behind exterior walls and panels should be sampled prior to performing activities that would disturb them.
- Other materials not previously sampled (blackboard/tack board mastics, blackboard, mirror, peg board, wood paneling, sectional wall paneling, and bulletin board adhesive, ceramic tile grout in bathrooms, walk-in cooler adhesives, etc.) should be considered ACM unless laboratory results prove otherwise.

3.3 Physical Assessment of ACBMs

During inspection, suspect ACBM was separated into three USEPA categories. These categories are thermal system insulation (TSI), surfacing ACBM, and miscellaneous ACBM. TSI includes all materials used to prevent heat loss or gain or water condensation on mechanical systems. Examples of TSI are pipe insulation, boiler insulation, duct insulation, and mudded insulation on pipe fittings. Surfacing ABCM is commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous materials include all ABCM not listed in TSI or surfacing, such as linoleum, vinyl asbestos flooring, and ceiling tiles.

Finally, all ACBM is quantified in linear and square footage, depending on the nature of the material.

All ACBM identified during the original inspection and still remaining in the school were reassessed using the State of Connecticut Department of Public Health and AHERA guidelines for assessment of ACBM. The assessment categories are listed as follows:

- 1 = Damaged or significantly damaged TSI ACBM
- 2 = Damaged friable surfacing ACBM
- 3 = Significantly damaged friable surfacing ACBM
- 4 = Damaged or significantly damaged friable miscellaneous ACBM

- 5 = ACBM with potential for damage
- 6 = ACBM with potential for significant damage
- 7 = Any remaining friable ACBM or friable suspected ACBM

Material locations, assessments, and recommended response actions are listed in the re-inspection forms.

4.0 MANAGEMENT PLAN UPDATE

4.1 Recommended Response Actions

1. Removal

None

2. Repair

None

3. Enclosure

None

4. Encapsulation

None

5.0 OPERATIONS AND MAINTENANCE

All remaining ACBM in the school shall be placed in an Operations and Maintenance Program. The condition of such materials will be monitored until all the ACBM have been removed from the building. The program will include periodic surveillance inspections to maintain the effectiveness of the program. Please see Appendix F for Preventive Maintenance Procedures for different ACM.

It should be noted that only locations with assessments of 1 or 2 are recommended for removal or repair. The remaining materials in this building should be addressed with continued operations and maintenance surveillance.

6.0 EPA CERTIFICATION REQUIREMENTS

The certificates and the licenses for the individuals (Kevin McCarthy and Matthew Myers) involved in performing the re-inspection and updating the management plan are provided in Appendix G.



Report prepared by Environmental Analyst II Kevin McCarthy.

Report reviewed by:

Matthew Myers
Senior Project Manager

Neal B. Freuden
President



APPENDIX A

CHECKLIST FOR EXISTING RECORDS



CHECKLIST FOR EXISTING RECORDS

Local Education Agency (LEA): New Milford Public Schools
386 Danbury Road
New Milford, Connecticut

School Building: Sarah Noble Intermediate School

The following documentation is required to be present in both the LEAS' Office as well as in a centralized location in the administrative office of the school. The information included in this checklist shall be verified to be present and complete as part of three year re-inspection.

DOCUMENTATION		LOCATION	
		School	LEA Office
1.	Original AHERA Inspection/Management Plan	No	Yes
2.	Three year Re-inspection (First and all subsequent three-year re-inspections)	No	Yes
3.	Notifications to Parents/Guardians and Teachers (yearly since last re-inspection)	No	Yes
4.	Designated Person Identified and Proper Training (person must be named and have appropriate training)	No	Yes
5.	Designated Person Periodic Surveillance (every six months since last re-inspection)	No	Yes
6.	Record of Awareness Training for Maintenance Staff	No	Yes
7.	Outside Vendor Awareness Notification	No	Yes
8.	Warning Signs and Labels (required posting in Boiler room and mechanical spaces only)	N/A	N/A
9.	Record of Response Actions (includes any abatement done since last re-inspection)	No	Yes

Comments: Copies of all information pertaining to Sarah Noble Intermediate School located in LEA office should be placed at the school.

Inspector: Kevin McCarthy

Date: April 1, 2008



APPENDIX B
RE-INSPECTION FORM 1A

Re-inspection Form 1 (A) – List of ACBM Asbestos-Containing Materials

School: Schaghticoke Middle School
Address: 25 Sunny Valley Road, New Milford, CT

Date(s) of Original Inspection: 1986

Sample Number	Homogeneous Material		Material Category	Friability	Assessment Category (1-7)	Recorded locations	Response actions taken/renovations/other comments
	Asbestos Content	Material Description					
Unknown	Unknown	Mastic for blackboards and tackboards	Misc.	NF	5	Hallway wall in rooms 156, 155, 154, 153, 157, 214, 212, 208, 206, 207, 202, 110, 108, 106A, 106, 104, 102A, 101, 103, 105, 107, 109, 111, 113; south wall of rooms 158, 202, 103; north wall of room 110, northwest corner of room 103, hallway in back of room 158	Material is enclosed in sheetrock walls Maintained under O & M

Information abstracted by: Kevin McCarthy

Date: April 1, 2008

Material Category: TSI = Thermal System Insulation, Surf. = Surfacing, Misc. = Miscellaneous

Friability: F = friable, NF = non-friable

AHERA assessment category:

1 = Damaged or significantly damaged TSI ACBM; 2 = Damaged friable surfacing ACBM; 3 = Significantly damaged friable surfacing ACBM; 4 = Damaged or significantly damaged friable miscellaneous ACBM; 5 = ACBM with potential for damage; 6 = ACBM with potential for significant damage; 7 = Any remaining friable ACBM or friable suspected ACBM



APPENDIX C
RE-INSPECTION FORM 2

Re-inspection Form 2. Re-inspection of ACBM: Findings and Management Planner Recommendations

School: Sarah Noble Intermediate School Date(s) of Re-Inspection: April 1, 2008
 Homogeneous Material: Miscellaneous: Brown Mastic for Old Tackboard/Blackboards Sample ID Number Unknown

RE-INSPECTION FINDINGS FOR ACBM				MANAGEMENT PLANNER RECOMMENDATIONS		
Location(s) of ACBM by Assessment Category	Friability	Quantity	Assessment Category	Physical Description	Recommended Response Action(s)	Date Action Completed
Hallway wall in rooms 156, 155, 154, 153, 157, 214, 212, 208, 206, 207, 202, 110, 108, 106A, 106, 104, 102A, 101, 103, 105, 107, 109, 111, 113; south wall of rooms 158, 202, 103; north wall of room 110, northwest corner of room 103, hallway in back of room 158	NF	2,400SF	5	Intact non-friable miscellaneous material with a potential for contact damage	Operations & Maintenance Material is enclosed in sheetrock walls	Continue Informational
Were additional samples of this ACBM collected? No						
Inspector's name: <u>Kevin McCarthy</u> Inspector signature: <u><i>Kevin McCarthy</i></u> Accreditation #/State: <u>000586/CT</u> Expiration date: <u>5/31/2009</u>						
Date of Management Planner review: <u>4/16/2008</u> Management Planner name: <u>Matthew Myers</u> Management Planner signature: <u><i>Matthew Myers</i></u> Accreditation #/State: <u>000041/CT</u> Expiration date: <u>4/30/09</u>						
I, the LEA's Designated Person, have read and understood the recommendations made above: Date: _____						



APPENDIX D

BULK SAMPLE RESULTS



APPENDIX E

PERIODIC SURVEILLANCE FORM

PERIODIC SURVEILLANCE FORM

Local Education Agency (LEA):

Facility Address:

New Milford Public Schools
Sarah Noble Intermediate School
25 Sunny Valley Road, New Milford Connecticut

Date of Surveillance:

ACBM DAMAGE REPORT

Asbestos Containing Material	Location	Previous Condition	Present Condition	Change in Condition (Yes/No)	Quantity Damaged	Comments
Brown mastic for older tackboards and blackboards	Hallway wall in rooms 156, 155, 154, 153, 157, 214, 212, 208, 206, 207, 202, 110, 108, 106A, 106, 104, 102A, 101, 103, 105, 107, 109, 111, 113; south wall of rooms 158, 202, 103; north wall of room 110, northwest corner of room 103, hallway in back of room 158					Material is enclosed in sheetrock walls

Conditions: G = Good D = Damaged SD = Significant damage

Surveillance conducted by:

(signature)

I, the LEA's Designated Person, have read and understood the findings noted above:

Name: _____

Date: _____



APPENDIX F

PREVENTIVE MEASURES

OPERATIONS AND MAINTENANCE PROCEDURES FOR VARIOUS ASBESTOS-CONTAINING MATERIALS

A. SURFACING MATERIALS

“Surfacing Materials” means materials in a school building that are sprayed-on, troweled-on, or otherwise applied to surfaces. These include sprayed-on fireproofing materials on structural members, ceiling and wall plasters, or other materials applied to surfaces for acoustical, fireproofing, or other purposes.

Surfacing Materials are generally considered friable and can release asbestos fibers if damaged by impact, air erosion, vibration, and/or water intrusion. The following procedures, when properly implemented, will reduce the potential for fiber release:

1. Sprayed-on fire-proofing

- a) Identify the materials and post warning signs on the laid-in or glued-in ceiling tile. If the decking is not covered, place the sign on the wall.
- b) Maintain the materials in intact state and undamaged condition. During winter, pigeons, squirrels and other rodents tend to roost in boiler/machine rooms and dislodge sprayed-on fireproofing on the decking. Prevent such possibilities.
- c) Prevent water leakage. If the material is significantly damaged, removal is the best option. For minor damage, enclosure is a temporary solution. Encapsulation of damaged sprayed-on fireproofing material is not recommended.
- d) Train the custodial people who are responsible for care and maintenance of surfacing materials. Please note that the repair/removal can only be performed by a licensed abatement contractor.

2. Ceiling and wall plaster

- a) Identify the materials and post warning signs.
- b) Maintain the materials in intact state and undamaged condition. Avoid storing/stacking on/near the materials to reduce contact damage.
- c) Prevent water leakage. If the material is significantly damaged, removal is the best option. For minor damage, repair or enclosure is a temporary solution.
- d) Train the custodial people who are responsible for care and maintenance of surfacing materials.

B. THERMAL SYSTEM INSULATION (TSI)

“Thermal System Insulation (TSI)” means insulating materials applied to pipes, pipe fittings, boilers, breeching, tanks, ducts, or other components to prevent process heat loss or gain, water condensation, or for other purposes (e.g., fire door insulation core).

TSI are generally considered friable ACM. This means they can be easily damaged, increasing the potential for fiber release. The following procedures, when properly implemented, will reduce the potential for fiber release:

1. Boiler and breeching insulation

- a) Identify the locations and label the boiler. Warning signs should be posted outside the boiler room.
- b) Reduce the likelihood of fiber release by ensuring that the insulation is not damaged. Avoid storing/stacking on/near the boiler to reduce contact damage.
- c) Maintain the insulation in intact state and undamaged condition. Repair damaged areas as soon as possible to prevent further deterioration. If repair is not feasible due to extensive damage/deterioration, remove the material.
- d) Train the custodial people who are responsible for care and maintenance of TSI. Please note that the repair/removal can only be performed by a licensed abatement contractor.

2. Pipe, pipe-fittings, tank and duct insulation

- a) Identify the locations and label the materials. Warning signs should be posted outside of rooms that have TSI materials.
- b) Reduce the likelihood of fiber release by ensuring that the materials are not damaged. Avoid storing/stacking near the materials to reduce contact damage.
- c) Maintain all TSI materials in intact state and undamaged condition. Inspect the protective jackets for damage. Repair damaged areas as soon as possible, to prevent further deterioration. If repair is not feasible due to extensive damage/deterioration, remove the material.
- d) Train the custodial people who are responsible for care and maintenance of TSI. Please note that the repair/removal can only be performed by a licensed abatement contractor.

3. Fire door

- a) Identify the locations and label the materials.
- b) Since there may be a number of different types of fire doors throughout a building, fire door cores must be considered to have asbestos-containing interior insulation unless sample result prove otherwise. Prior to performing any maintenance on any door (lock change, drilling, etc.), the door should be surveyed by qualified personnel to rule out the existence of an asbestos core.
- c) Train the custodial people who are responsible for care and maintenance of TSI.

Please note that the repair/removal can only be performed by a licensed abatement contractor.

C. MISCELLANEOUS MATERIALS

“Miscellaneous Materials” are all other ACM in a school building that does not fall under the categories of Surfacing Materials or TSI. These include floor tiles, floor tile and carpet mastic, gypsum wallboard and joint compound, ceiling tiles, glue daubs, transite panels, laboratory counter tops, wallbase and associated glue, window caulking and glazing compounds etc. The following maintenance procedures are recommended for these materials:

1. Vinyl Asbestos Floor Tiles (VAT)

Vinyl Asbestos Floor Tiles (VAT) are considered non-friable, however routine maintenance procedures such as spray-buffing, burnishing, wet scrubbing, and stripping can generate asbestos fibers. Following procedures, when properly implemented, will reduce the potential of fiber release:

- a) Do not sand, grind or abrade the tiles. Stripping of VAT should be done as infrequently as possible. When stripping becomes necessary, follow the appropriate work practices. Never perform dry stripping.
- b) During spray buffing or burnishing the floor operate the machine at the lowest workable speed and use the least abrasive pad. Use a wet mop for routine cleaning whenever possible.
- c) Routinely check whether chair and desk glides are in good condition and replace when necessary. Worn glides can gouge the floor and cause fiber release.
- d) Place carpets/floor mats in all entrances to reduce abrasion of floor tiles by sand and pebbles. During winter, have parking lots and walkways swept to the extent possible to avoid the tracking of salt and ice-melting compounds into the school by the students.
- e) Train the custodial people who are responsible for care and maintenance of VAT. Please note that the repair/removal can only be performed by a licensed abatement contractor.

2. Gypsum wallboard and joint compound assembly

- a) Since there may exist a number of different homogeneous assemblies in a building, all sheetrock/joint compounds must be assumed to be ACM unless sample results prove otherwise. If any specific areas are going to be disturbed, the material in that area should be sampled.
- b) Reduce the likelihood of fiber release by avoiding cutting or drilling holes through the sheetrock panels.



3. Ceiling Tile and Glue Daubs

- a) Reduce the likelihood of fiber release by limiting access to the area above the ceiling tiles. Maintain the ceiling tiles in undamaged condition. Replace any damaged or water-stained tile.
- b) If the ceiling tiles are negative for asbestos, sample and analyze the glue daubs to ascertain whether these are asbestos containing before the tiles are replaced.

4. Transite Panels, Laboratory Counter Tops, Window Caulking and Glazing Compounds

- a) Reduce the likelihood of fiber release.
- b) Maintain transite panels, lab table tops and window caulking and glazing compounds in undamaged condition.

5. Carpet Glue, Baseboard and Mastic

- a) Reduce the likelihood of fiber release by leaving base cove and carpets in place.
- b) Maintain carpets and base cove in good condition. Sample and analyze the glue and the mastic to ascertain whether these are asbestos containing if the renovation activities are going to impact the carpet and the baseboard.

There are general work practices that apply to all schools in the school system.

1. Vinyl Asbestos Floor Tile (VAT). In many cases, the surface of the tile may appear abraded. Often, custodial employees will use abrasives to clean floor surfaces prior to the application of floor wax. This practice should be strongly discouraged, as it wears away the top surface, exposing the underlying matrix that may contain asbestos. Where a dull white finish is observed through the top surface of the tile, it indicates that damage to the tile has occurred.
2. Hammering or drilling through floor tile to fasten carpeting or other materials should be prohibited.
3. Chairs and desks should be equipped with rubber feet or gliders to reduce damage to the floor tile surfaces.
4. Efforts should be made to minimize storage of maintenance supplies in the portions of the boiler rooms nearby boilers, breeching, headers, or other areas that might be damaged. This applies specifically to items such as ladders, chairs, desks, and other large items that might damage the surface.
5. The storage of desks, chairs, and other school supplies in pipe tunnels or chases where there is ACM should be discouraged. In addition to limiting access, movement of these items may cause damage to the surface.
6. Where ladders are required in areas where thermal system ACBM has been documented, hinge-type ladders should be used if possible. Custodial employees are discouraged from leaning extension ladders against boilers, breeching, or headers.



Boiler Rooms often have asbestos containing materials such as pipe insulation, pipe fitting insulation, tank insulation, boiler insulation, firebrick, gaskets, spray applied fireproofing and wall and ceiling plaster. Damage to these materials can be caused by contact forces (ladders and equipment hitting the materials), water (leaks in boilers, pipes and tanks) and vibration forces. All personnel (custodians, maintenance, and outside contractors) entering boiler rooms must be made aware of the asbestos containing materials and exercise caution as to not damage or disturb these materials. The boilers are typically serviced by an outside boiler contractor. The routine maintenance activities must not disturb the asbestos containing materials. The designated person should be notified if planned work or routine maintenance may disturb the asbestos containing materials. The appropriate response action (removal, etc.) will be selected by a licensed management planner and project designer and performed by properly trained personnel prior to routine non-asbestos maintenance work beginning.

Tunnels and crawl spaces often have asbestos containing pipe and/or pipe fitting insulation throughout. Sometimes asbestos containing tank insulation, duct insulation and transite are also found in these areas. The area should be restricted to persons with sixteen-hour training and respiratory protection at a minimum if the insulation is in damaged condition. All damaged areas should be repaired and a clearance air test passed prior to occupancy by custodial staff or outside Contractors. Persons entering a tunnel and/or crawl space must be made aware of the types of asbestos containing materials in these areas and exercise extreme caution as to not damage these materials.

Asbestos containing spray applied fireproofing can often be found on metal I-beams above ceilings and behind walls in many schools. This material is a very friable and usually is also found on adjacent ceiling decks, piping and mechanical systems, etc. (over-spray) because of the method of original installation. The fireproofing is often not hidden behind walls or ceilings in mechanical and boiler rooms. Sometimes this material becomes dislodged (age, delamination, air plenum wind forces and gravity) and lands on drop, sheetrock or plaster ceilings. Caution should be exercised if someone has to do work above the ceilings or when replacing a specific section of a ceiling. Schools with common return air plenums have additional concerns of delaminating fireproofing and subsequent asbestos fiber release into the return air. The designated person and a licensed asbestos management planner and project designer should be notified if work involves disturbance of the ceiling or areas above the ceiling. The project designer should develop standard operating procedures and a project design is it is found that exposure is possible through activities such as popping ceiling tiles, routine repair or maintenance activities above the lower ceilings or work involving the disturbance of the material directly (example – installing ducts, pipes, ceilings, computer lines, etc – scraping areas to hang product).

Asbestos containing ceiling tiles can be found in school buildings. These tiles are often covering older ceiling materials such as plaster or sheetrock and are typically 2x4', 2x2' and 1x1' in size. They are either supported by a metal grid system (drop ceiling), concealed spline, or glued in place. Special considerations must be given for glue adhered ceilings. The ceiling tile, glue daub and ceiling above (plaster, etc.) must all be considered as asbestos containing even if one is found not to contain asbestos. The ceiling tile is adhered to the glue daub that is adhered to the ceiling above and they usually can not be separated. A licensed asbestos



abatement contractor should remove ceiling tiles that are within reach of building occupants and have a history of damage. Ceiling tiles that are “popped” on occasion to access areas above (for routine maintenance activities and due to small amounts of water damage) should be replaced with non-asbestos tiles or the potential for exposure should be examined through air testing in conjunction with a test containment. A licensed project designer should design a method for routine activities (portable pop-up containment, water, hepa-vac, respiratory protection, sixteen-hour training, etc.). Asbestos containing ceiling tiles should be removed if work activity involves “popping” more than a few tiles. Running new computer lines, telecommunication systems, security systems, piping for sprinklers, large roof leaks, etc. all typically required moving many ceiling tiles throughout the school, therefore a licensed abatement contractor should remove the tiles prior to work by other contractors. Custodians, maintenance staff and outside contractors should be made aware of the locations of the asbestos containing ceiling tiles and in house work practices pertaining to them.

Asbestos containing pipe and/or pipe fitting insulation, duct insulation (commonly within reach in incinerator rooms, mechanical and air handling rooms and above ceilings in kitchens) **roof drain insulation and vibration isolation cloth** (on sections of metal ducts) are often located in chases, behind walls and above ceilings. Sometimes these materials are within reach of all building occupants (located below the ceilings in classrooms, corridors, stages, stairwells, etc.). Custodians, maintenance staff and contractors should be made aware of the presence of these materials. Persons working in these areas must exercise caution and not damage these materials. These asbestos containing materials should be removed or enclosed if they are within reach of most building occupants and damage has occurred in the past.

Asbestos containing hard and soft acoustical wall and ceiling plaster can exist throughout a building (corridors, classrooms, etc.) or only in limited areas such as a boiler room, auditorium, pool, etc. Asbestos containing hard plaster typically does not pose a threat to human health and safety unless deliberately disturbed. Activities such as drilling holes to run or hang wires and pipes, demolition of interior walls during renovation, removing glue daubs from plaster and water leaks can damage the material and result in a release of airborne asbestos fibers. Asbestos containing soft plaster can be damaged from the activities described above as well as contact damage from simply toughing the material. Asbestos containing fibers from soft plaster are dislodged from the light contact forces such as poking the materials with ones hand, pencils, pens, etc. Soft plaster should be removed immediately if it's located within reach of students (low ceiling in an auditorium, etc.). Outside contractors, custodial and maintenance staff must be made aware of the location of asbestos containing plaster and informed to avoid work practices that may disturb this material. The designed person and a licensed management planner and project designer should select the response action required if planner work activities anticipate disturbance of the asbestos containing plaster.

Asbestos containing 9x9” and 12x12” floor tiles and underlying mastic are common throughout school buildings. It shall be assumed that all areas with carpeting have floor tile and mastic located below carpet unless the floor tiles and mastic were abated prior to the installation of the carpet. Custodians, maintenance staff and contractors other than licensed asbestos abatement contractors shall not be permitted to remove carpeting unless the floor tiles are not disturbed in the process (stay intact adhered to the sub-flooring). Areas with “newer” non-asbestos containing floor tiles shall be assumed to have a lower layer of asbestos containing



floor tile and/or flooring mastic adhered to the underneath unless both the older tile and underlying mastic were abated prior to the installation of the newer tile and mastic. The "newer" tile must be considered an asbestos containing material if asbestos containing floor tile and/or mastic is adhered to the bottom of it. Floor tiles are typically not damaged unless they are losing adhesion to the substrate due to adhesion failure, age and water damage or through improper maintenance or work activities. The designated person shall be contacted if adhesion failure, are and/or water damage has occurred or if renovation work will disturb the material (drilling for pipe insulation, etc.). A licensed management planner will select the proper response action and a project designer will create a design if abatement is required. Maintenance activities should be standardized and training required in order to minimize possible fiber release during routine floor maintenance. OSHA requires the following:

- i) Sanding of floors is prohibited
- ii) Stripping of finishes shall be conducted using low abrasion pads at speed lower than 300 rpm and wet methods.
- iii) Burnishing or dry buffing may be performed only on flooring which had sufficient finish so that the pad cannot contact the flooring material.

Some additional work practices are listed below:

- i) Stripping of floor coverings should be done as infrequently as possible (ex-annually)
- ii) Follow manufactures instructions and never perform dry stripping. Always use the least abrasive pad when stripping.
- iii) Sealing floors should be done through applying sever thin coats of high percentage solids finish.
- iv) Use the lowest rates of speed and least abrasive pads when spray-buffing or dry-burnishing floors
- v) Install floor matting at entrances (16-24 feet).

Asbestos containing materials in fire doors is typically inaccessible. These materials are often found in boiler and mechanical room doors as well as auditorium, library, café, kitchen and exterior doors. Sometimes these materials are also located in common doors used for classrooms, corridors, etc. Samples taken from any one door may not be representative of other doors in the facility. Prior to performing any maintenance or replacement of any door (lock changes, planing, sanding, drilling, removal, etc.) the designated person should be notified and the specific door should be sampled by a licensed asbestos inspector. A licensed project designer will design the work procedures to be used for a specific work activity if the door materials are found to contain asbestos.



Asbestos containing electrical insulation is common in auditorium/stage light trays and as “pigtailed” on spotlights. This material is often white and contains a high percentage of asbestos. Many schools also have these light trays and pigtailed in storage or lying around the stage area. This material should be removed if no longer in use. The lighting insulation still in use should be removed and replaced if contact damage is likely. Black insulated wire and gray or black electrical box lining (paper like) sometimes contain asbestos. Custodians, maintenance staff, outside contractors, and parties (students, etc.) responsible for operating lighting with this insulation should be made aware of this material and practice work procedures that will not disturb it.

Many different mastics, glues and adhesives can contain asbestos. Common forms of these materials are carpet glue, flooring mastics (under tile, sheet flooring, linoleum and wood floors (gym)), ceramic tile adhesive, baseboard adhesive, ceiling and wall tile glue, daubs, chalkboard and bulletin board adhesives, etc. These materials are sometimes adhered to non-asbestos containing materials. These non-asbestos containing materials must be considered as asbestos containing because the mastic, glue or adhesive usually can not be separated from them. The custodians, maintenance staff and outside contractors must be made aware of any asbestos containing mastics, glues and adhesives prior to conducting activities that may disturb them. A licensed asbestos inspector must sample materials previously not analyzed for asbestos content prior to work activities that will disturb them. Only a licensed asbestos abatement contractor can remove asbestos containing materials (greater than 3 feet) and asbestos or non-asbestos containing materials bonded to them.

Sheetrock, taping/joint compound, wallboard, vinyl or sheet flooring and countertops, laboratory countertops and laboratory hoods can contain asbestos. **Transite board** is another common building product that contains asbestos. This material is typically found behind radiators, on exterior soffits, in laboratory products (tables, piping, hoods and exhaust ductwork) and on walls or ceilings. These materials are typically not a threat to human health and safety unless deliberately disturbed. Puncturing walls and ceilings, sawing countertops and laboratory hoods, etc. can release asbestos fibers into the air. Custodians, maintenance staff, and outside contractors must be made aware of these possible asbestos containing products and avoid work that will disturb them.

Exterior materials may also contain asbestos. **Roofing and flashing materials, door and window caulking and glazing, soffits, entrance eaves and overhangs, covered walkways, etc.** may have asbestos containing materials. These materials must be sampled prior to their disturbance in order to determine the appropriate removal techniques and disposal requirements. Covered walkways and overhangs must be assumed to contain asbestos unless bulk sample results prove otherwise.

Some building materials may be found to contain less than one percent asbestos and therefore are not regulated by the federal or state asbestos regulations. However, demolition or renovation activities that disturb these materials can create possible OSHA violations if the PEL (permissible exposure limit) or (exposure limit) is exceeded. Plaster and ceiling tiles (containing less than one percent asbestos) undergoing demolition can exceed OSHA's standards as well as the State of Connecticut Re-occupancy Criteria. These building materials should be removed either as an asbestos containing material or under a semi-controlled



environment (ex. – use a significant amount of water during demolition of the ceiling or wall in conjunction with air testing) to control possible airborne exposures to asbestos.

Newer building materials may also contain greater than one percent asbestos. Building additions, portable classrooms and building products installed during renovations after 1980 have occasionally been found to contain asbestos. Floor tiles and mastics, adhesives and glues, wall and ceiling materials, roofing materials, etc. should be sampled prior to performing activities that will disturb them. Sampling can be avoided if the building architect signs a statement that the building materials do not contain asbestos or MSD sheets prove the corresponding materials are not asbestos containing.



APPENDIX G

FUSS & O'NEILL ENVIROSCIENCE AHERA ACCREDITATIONS

State of Connecticut
Board of Trustees, Community-Technical Colleges
Capital Community College
950 Main Street, Hartford, CT 06103 – (860) 906-5131

This is to certify that

Kevin McCarthy
93 Morning Mist Road, Milford, CT 06460
SS# 

has successfully completed the
24 Hr. Asbestos Inspector Initial Course
Asbestos Accreditation under TSCA Title II
40 CFR Part 763

Franklin Mills

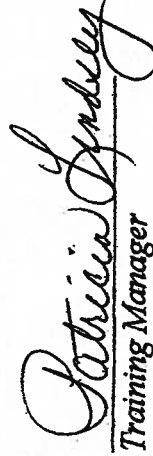
Principal Instructor

Jan. 12-14, 2004

Date of Course

January 14, 2004: A

Examination Date & Grade


Training Manager

AI-I-01/14-1

Certificate Number

January 14, 2005

Expiration Date

CERTIFICATE OF ACHIEVEMENT

This certifies that

Kevin McCarthy

has successfully completed the
**Asbestos Site Inspector Refresher Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763**

conducted by

**ATC Associates Inc.
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070**

Official record of successful
completion of this Course is the
DOH2832 Certificate issued on
November 28, 2007.

Gregory J. Morach
Principal Instructor

November 28, 2007

Date of Course

November 28, 2008

Expiration Date

Gregory J. Morach
Regional Manager

SIAR-2622

Certificate Number

November 28, 2007

Examination Date

0003698 FP **PRSR T1 0 0864 06111

KEVIN MC CARTHY
FUSS & O' NEILL ENVIROSCIENCE LLC
795 NORTH MOUNTAIN ROAD
NEWINGTON CT 06111

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification for the coming year. Should you have any questions about your license/certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603

<http://www.dph.state.ct.us>

Sincerely,

J Robert Galvin, MD, MPH, MBA

J. ROBERT GALVIN, MD, MPH, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

INSTRUCTIONS:

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.

4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS LICENSED
BY THIS DEPARTMENT AS A

ASBESTOS CONSULTANT-INSPECTOR

KEVIN MC CARTHY

LICENSE NO. 000586
CURRENT THROUGH 05/31/09
VALIDATION NO. 03-639348

Kevin Mc Carthy
SIGNATURE

J Robert Galvin, MD, MPH, MBA
COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
KEVIN MC CARTHY

VALIDATION NO. 03-639348
LICENSE NO. 000586
CURRENT THROUGH 05/31/09
PROFESSION ASBESTOS CONSULTANT-INSPECTOR

Kevin Mc Carthy
SIGNATURE

J Robert Galvin, MD, MPH, MBA
COMMISSIONER

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
KEVIN MC CARTHY

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PROFESSION ASBESTOS CONSULTANT-INSPECTOR

Kevin Mc Carthy
SIGNATURE

J Robert Galvin, MD, MPH, MBA
COMMISSIONER



WATER AND AIR ENGINEERING

39 Spruce Street
East Longmeadow, MA

No. MP-0376

MATHEW MYERS

Has attended an 16 hour Asbestos Training Course for Asbestos Management Plan Preparers on March 14-15, 1991 and has passed a written examination.

Course topics covered include asbestos health hazards, respirators, government regulations, worker protection, Evaluation of the Site Survey and Hazard Assessment, Control Methods, the Management Plan.

COURSE INSTRUCTORS

Thomas E. Veratti

Thomas E. Veratti, Vice President
Certified Chemical Engineer
Industrial Hygienist

Brenda Bolduc

Brenda Bolduc
Training Dept. Manager

Expires March 15, 1992

Fuss & O'Neill EnviroScience, LLC

795 North Mountain Road, Newington, CT 06111 – (860) 953-2700

This is to certify that

Matthew Myers

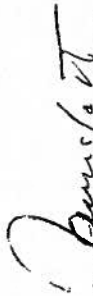
SS#: xxx-xx-3305

has successfully completed the

4 Hr. Asbestos Management Planner Refresher

Asbestos Accreditation under TSCA Title II

40 CFR Part 763



James Scott, Principal Instructor

September 10, 2008

Date of Course

September 10, 2008: A

Examination Date & Grade

Neal Freuden, Training Manager

AMP-R-09/08-05

Certificate Number

September 10, 2009

Expiration Date

0003604 FP **PRSRT T1 0 0864 06111

MATTHEW A. MYERS
FUSS & O'NEILL ENVIROSCIENCE LLC
795 NORTH MOUNTAIN RD
NEWINGTON CT 06111

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification for the coming year. Should you have any questions about your license/certificate renewal, please do not hesitate to write or call:

Department of Public Health (860) 509-7603
P.O. Box 340308
M.S.#12MQA <http://www.dph.state.ct.us>
Hartford, CT 06134-0308

Sincerely,

J. ROBERT GALVIN, MD, MPH, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

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4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS LICENSED
BY THIS DEPARTMENT AS A

ASBESTOS CONSULTANT - INSP/MGMT PLANNER

MATTHEW A. MYERS

LICENSE NO. 000041
CURRENT THROUGH 04/30/09
VALIDATION NO. 03-639354

SIGNATURE

COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MATTHEW A. MYERS

VALIDATION NO. 03-639354
LICENSE NO. 000041
CURRENT THROUGH 04/30/09
PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE

COMMISSIONER

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
MATTHEW A. MYERS

VALIDATION NO. 03-639354
LICENSE NO. 000041
CURRENT THROUGH 04/30/09
PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE

COMMISSIONER



APPENDIX H

CONTRACTOR ACKNOWLEDGEMENT/SIGN IN



SARAH NOBLE INTERMEDIATE SCHOOL
CONTRACTOR SIGN IN LOG
ASBESTOS CONTAINING MATERIALS

The Asbestos Management Plan is available for your review to determine the location of asbestos-containing materials in Sarah Noble Intermediate School. By signing below you acknowledge that the Asbestos Management plan has been made available for your use. Asbestos-containing materials shall not be disturbed except by a licensed Asbestos Abatement Contractor.

<u>Name(Print)</u>	<u>Company</u>	<u>Date</u>	<u>Signature</u>
_____	_____	_____	_____
_____	_____	_____	_____
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_____	_____	_____	_____



APPENDIX I

BUILDING DIAGRAMS



APPENDIX J

MATERIAL SAFETY DATA SHEETS (MSDS) FOR NEWER BUILDING MATERIALS