

# **Three-Year Asbestos Hazard Emergency Response Act Re-Inspection and Management Plan Update**

for  
Maintenance & Storage Buildings  
at Peebles Elementary School  
70 Trowbridge Road  
Bourne, Massachusetts

For Compliance with  
Commonwealth of Massachusetts Department of Labor Standards (MADLS)  
Asbestos Containing Materials in Schools Regulation (453 CMR 6.00)  
and  
EPA Asbestos Hazard Emergency Response Act  
(Title 40 CFR, Part 763, Subpart E)

**Bourne Public Schools**  
Bourne, Massachusetts

December 2017



Fuss & O'Neill EnviroScience, LLC  
108 Myrtle Street, Suite 502  
Quincy, MA 02171



**FUSS & O'NEILL**  
EnviroScience, LLC

February 16, 2018

Mr. Jordan Geist  
Interim Business Director  
Bourne Public Schools  
36 Sandwich Road  
Bourne, MA 02532

**RE: Three-Year AHERA Re-Inspection and Management Plan Update  
Maintenance & Storage Buildings at Peebles Elementary School  
70 Trowbridge Road, Bourne, MA**  
Fuss & O'Neill EnviroScience Project No. 20121141.C3E

Dear Mr. Geist:

Enclosed is Three-Year AHERA Re-Inspection and Management Plan Update report prepared by Fuss & O'Neill EnviroScience, LLC for the Maintenance and Storage Buildings at Peebles Elementary School located at 70 Trowbridge Road in Bourne, Massachusetts (the "Site"). AHERA services were performed for Bourne Public Schools (the "Client").

This report is an important document that must be kept on file at the school and at a central location where the Asbestos Management Plans are maintained.

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

Sincerely,

Dustin A. Diedricksen  
Senior Project Manager

DD/so

Enclosure

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# Table of Contents

## Three-Year Asbestos Hazard Emergency Response Act Re-Inspection and Management Plan Update Maintenance & Storage Buildings at Peebles Elementary School

---

<b>1</b>	<b>Introduction .....</b>	<b>1</b>
	1.1 Background .....	1
	1.2 Local Education Agency (LEA) Responsibilities .....	1
	1.3 Key Personnel.....	2
<b>2</b>	<b>Building and Mechanical System Description .....</b>	<b>3</b>
<b>3</b>	<b>Three Year Re-Inspection.....</b>	<b>3</b>
	3.1 Re-Inspection Procedures.....	3
<b>4</b>	<b>Re-Inspection Report.....</b>	<b>4</b>
	4.1 Review of Existing Records .....	4
	4.2 Re-Inspection Summary.....	4
	4.3 Newly Identified or Re-sampled ACBM Materials.....	5
	4.4 Physical Assessment of ACBM .....	6
<b>5</b>	<b>Management Plan Update .....</b>	<b>6</b>
	5.1 Recommended Response Actions.....	6
	5.2 Periodic Surveillance .....	8
	5.3 Preventive Measures.....	8
	5.4 Abatement (Removal) Cost Estimates.....	8
<b>6</b>	<b>EPA Accreditation Requirements .....</b>	<b>9</b>

### Appendices

### End of Report

APPENDIX A	EXISTING RECORDS CHECKLIST
APPENDIX B	RE-INSPECTION FORM 1
APPENDIX C	RE-INSPECTION FORM 2
APPENDIX D	NEWLY INSTALLED MATERIALS SAFETY DATA SHEETS
APPENDIX E	SAMPLE 6-MONTH PERIODIC SURVEILLANCE FORM
APPENDIX F	PREVENTIVE MEASURES
APPENDIX G	FUSS & O'NEILL ENVIROSCIENCE ASBESTOS ACCREDITATIONS & CERTIFICATIONS

# 1 Introduction

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## 1.1 Background

The Clean Air Act required the United States Environmental Protection Agency (EPA) to develop standards to address the potential health risks associated with adverse effects of asbestos exposure as an indoor contaminant. In October 1986, the EPA promulgated the Asbestos Hazard Emergency Response Act (AHERA) located at Title 40 CFR, Part 763, Subpart E.

The AHERA regulations require that local education agencies (LEA) conduct inspections of each school building that they lease, own, or otherwise use as a school building to identify friable (easily crumbled or crushed to powder by hand pressure) and non-friable asbestos-containing building materials (ACBM) locations. The original inspections were required to have been completed prior to October 12, 1988.

AHERA also requires that any building leased or acquired on or after October 12, 1988, which is to be used as a school building, shall be inspected for friable and non-friable ACBM prior to use as a school building. In the event of an emergency use of a building that has not been inspected for ACBM, the building shall be inspected within 30 days after commencement of such use.

The regulatory requirements remain in effect for a private or public school system, a church-affiliated school of any denomination, a school dedicated to the education of children with special needs, or a charter school. In the Commonwealth of Massachusetts, the Department of Labor Standards (MADLS) is responsible for AHERA regulation enforcement.

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## 1.2 Local Education Agency (LEA) Responsibilities

The LEA is responsible for compliance with the AHERA regulation. The following responsibilities must be followed:

1. The LEA must designate a person to ensure that all AHERA requirements are properly implemented. The LEA's Designated Person must receive adequate training to perform their duties.
2. The LEA must ensure that the Asbestos Management Plans (AMP) are maintained in a central location and at each facility; these AMP and pertinent documentation shall be available for inspection or review at all times.
3. The LEA must inform all workers, building occupants, and legal representatives (as appropriate) in writing at least once per school year about asbestos-related activities and the availability of the AMP for each school building.

4. The LEA must ensure proper accreditation for all persons who perform asbestos inspections, asbestos re-inspections, AMP development/updates, Asbestos Work Plan (AWP) development, and response actions that may disturb asbestos; this includes operations and maintenance (O&M) activities.
5. The LEA must provide training for all custodial and maintenance staff who regularly perform building maintenance where ACBM are present. The training must be provided upon initial hire, and refresher training must be completed annually.
6. The LEA must provide information (disclosure) to any workers who may perform work and may come into contact with asbestos in school buildings where ACBM or presumed ACBM are present.
7. The LEA must ensure that known ACBM or presumed ACBM are provided with warning labels in routine maintenance areas.
8. The LEA must ensure that periodic surveillance is performed at least once every six months, after AMP implementation, in all school buildings that it leases, owns, or otherwise uses that contains ACBM or presumed ACBM.
9. The LEA must ensure that once every three years, after an AMP is implemented, a re-inspection is performed at each school building that it leases owns or otherwise uses that contains ACBM or presumed ACBM.

Refer to above-mentioned regulation for full requirements and responsibilities.

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### 1.3 Key Personnel

A. Local Education Agency (LEA):

LEA: Bourne Public Schools  
Address: 36 Sandwich Road  
Bourne, MA 02532  
Phone: (508) 759-0660

B. Designated Person:

Designated Person: Mr. Jordan Geist  
Address: 36 Sandwich Road  
Bourne, Massachusetts 02532  
Phone: (508) 759-0660

C. Asbestos Consultant:

Firm: Fuss & O'Neill EnviroScience, LLC  
Address: 108 Myrtle Street, Suite 502  
Quincy, MA 02171  
Phone: (617) 282-4675

D. Asbestos Inspector:

Inspector: Robert Mallett  
MADLS Certification Number: AI900557  
Expiration Date: 06/01/2018

E. Asbestos Management Planner:

Planner: Dustin Diedricksen  
MADLS Certification Number: AP900425  
Expiration Date: 04/05/2018

## 2 Building and Mechanical System Description

The Maintenance Building is a one-level wood framed structure, which includes three garage bays with overhead doors, a boiler room, and a restroom. The Storage Building is a two-level structure that is comprised of three garage bays on the lower level and a storage space on the upper level. The total areas of the Maintenance and Storage Buildings are approximately 1,200 and 2,030 square feet of space, respectively.

One heater in each building provides forced hot air through ductwork.

Based on visual observations, it appeared that no renovation or construction activities had been performed at either building since the last re-inspection.

## 3 Three Year Re-Inspection

### 3.1 Re-Inspection Procedures

This Three-Year AHERA Re-Inspection was conducted in accordance with EPA requirements of the AHERA regulation, Title 40 CFR, Part 763, Section 763.85 (b).

On December 8, 2017 Fuss & O'Neill EnviroScience, LLC (EnviroScience) representative Mr. Robert Mallett performed the re-inspection.

During the re-inspection, EnviroScience conducted the following required tasks:

1. A visual re-inspection and reassessment of all known friable or assumed ACBM.
2. A visual re-inspection of ACBM that was previously considered non-friable to determine if the present condition of the material has become friable.
3. Identification and assessment of any newly-identified homogeneous area that contains friable ACBM since the last inspection or re-inspection.

## 4 Re-Inspection Report

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### 4.1 Review of Existing Records

An important part of this AHERA re-inspection involved researching prior documentation that is required to be present at the school, as well as at the central recordkeeping location where AMP are stored.

Refer to *Appendix A* for the existing records checklist.

### 4.2 Re-Inspection Summary

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The on-site portion of the re-inspection was documented on forms modeled after examples provided by the EPA and reviewed with the MADLS. The first form, **Re-Inspection Form 1**, identifies previous inspection data gathered during the initial AHERA inspection and subsequent re-inspection (refer to *Appendix B*). This form is useful to reference response actions (if any), which have been performed since the last inspection, as well as identifies the last known conditions of ACBM in the building. It additionally provides the inspector a “quick glance” reference when performing the re-inspection.

The second EPA form, **Re-Inspection Form 2**, is used to provide information and justification regarding re-assessment of the ACBM (refer to *Appendix C*). This form also provides response action recommendations, including a tentative schedule for completing response actions that recommend removal or repair.

No bulk samples were collected during this re-inspection.

Using EPA protocol and criteria, the following materials existing in the Maintenance and Storage Buildings at Peebles Elementary School at the time of this three-year re-inspection have been assumed to be **ACBM**. Please refer to the above-mentioned re-inspection forms for specific locations of ACBM.

**Table 1**  
**Asbestos-Containing Building Materials (ACBM)**  
**(Previous & Current Re-Inspections)**

<b>Material</b>	<b>Location</b>	<b>Reference</b>	<b>Asbestos Content</b>
9" x 9" Tan Floor Tile	Maintenance Building Restroom	Assumed ACBM	Assumed ACBM
Gray Fiber-Reinforced Cement Ceiling Panels	Storage Building - Left Garage Bay	Assumed ACBM	Assumed ACBM
Gray Drywall	Storage Building - Center & Right Garage Bays & 1st Floor Walls & Ceilings	Assumed ACBM	Assumed ACBM
White Joint Compound	Storage Building - Right Garage Bay	Assumed ACBM	Assumed ACBM

Mr. Dustin Diedricksen reviewed the information obtained during this re-inspection. Mr. Diedricksen is an EPA-accredited and MADLS-Certified Asbestos Management Planner.

### **4.3 Newly Identified or Re-sampled ACBM Materials**

No new materials were identified during this re-inspection.

AHERA regulations pertain to interior identified or assumed ACBM and limited exterior ACBM. AHERA regulations do include ACBM located on exterior porticos, covered walkways, and mechanical equipment used to condition interior building air.

Any suspect material encountered during renovation/demolition/maintenance activities that is not specifically identified in the Asbestos Management Plan (AMP) as a non-ACM should be assumed to contain asbestos unless sample results indicate otherwise.

Safety Data Sheets (SDS) should be obtained and kept with the AHERA documentation for any newly installed materials in order to meet AHERA requirements. These sheets must demonstrate that asbestos-containing materials were not installed in the building. We recommend that SDS for newly installed materials be inserted into *Appendix D*.



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## 4.4 Physical Assessment of ACBM

During inspection, suspect ACBM were separated into three EPA categories: Thermal System Insulation (TSI), Surfacing ACBM, and Miscellaneous ACBM. TSI includes all materials used to prevent heat loss/ gain or water condensation on mechanical systems. Examples of TSI are pipe and fitting insulations, boiler insulation, and duct insulation. Surfacing ACBM is commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous ACBM include all ACBM not listed in TSI or surfacing, such as sheet flooring, vinyl asbestos flooring, ceiling tiles, and construction mastics/adhesives.

Finally, ACBM were quantified in linear or square feet, depending on the nature of the material.

The ACBM identified during the inspection (and still remaining in the school) were re-assessed using the MADLS and AHERA guidelines for assessment of ACBM. The following assessment categories are listed:

- 1 Damaged or significantly damaged TSI ACM
- 2 Damaged friable surfacing ACM
- 3 Significantly damaged friable surfacing ACM
- 4 Damaged or significantly damaged friable miscellaneous ACM
- 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.

## 5 Management Plan Update

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### 5.1 Recommended Response Actions

Based on the inspection report, physical walk-through inspection, and existing ACBM conditions, the following response actions are recommended:

1. Removal – Not Applicable
2. Repair- Not Applicable
3. Enclosure – Not Applicable
4. Encapsulation – Not Applicable
5. Operations and Maintenance (O & M) - All remaining ACBM

A successful O & M Program includes the following elements:

- A. Cleaning: All areas of the school where friable ACBM or assumed friable ACBM are present should be cleaned at least once after completion of the initial inspection. Additional cleaning may be necessary if the Asbestos Management Planner makes a written recommendation indicating the methods and frequency of such cleaning.
- B. O & M Activities: The LEA shall ensure that the procedures described below are followed to protect building occupants from O & M activities that may disturb known or assumed ACBM:
1. Restrict entry into the area either by physically isolating or by scheduling.
  2. Post asbestos warning signs to prevent entry by unauthorized persons.
  3. Deactivate or temporarily shut off or divert the air-handling system to the area.
  4. Use proper work practices and engineering controls, such as wet methods, protective clothing, High Efficiency Particulate Air (HEPA) vacuums, mini-enclosures/glove bags, etc. to inhibit fiber migration.
  5. Place asbestos debris and other contaminated materials into a sealed, leak-tight container for disposal.
- C. Minor Fiber Release Episode: The LEA shall ensure that the procedures described below are followed in the event of a minor fiber release episode (i.e., disturbance of less than or equal to 3 linear/square feet of friable ACBM):
1. Saturate the debris using wet method.
  2. Place the debris in a sealed, leak-tight container and clean the area.
  3. Repair the area of damaged ACBM with materials such as asbestos-free spackling, plaster or insulation or seal with an encapsulant.
- D. Major Fiber Release Episode: The LEA shall ensure that the procedures described below are followed in the event of a major fiber release episode (i.e., disturbance of greater than 3 linear/square feet of friable ACBM):
1. Restrict entry into the area and post asbestos warning signs.
  2. Deactivate or temporarily shut off or divert the air handling system from the area to prevent fiber migration.
  3. The response action for any major fiber release episode must be prepared by EPA-accredited Asbestos Project Designers and conducted by EPA-accredited personnel.
  4. The LEA shall notify the MADLS of any major fiber release episode within twenty-four hours of its occurrence and, if necessary, provide written notification as required by applicable federal and/or state regulations.

## 5.2 Periodic Surveillance

At least once every six months after an AMP is implemented, the LEA will conduct periodic surveillance in the school that contains ACBM or assumed ACBM. The person conducting periodic surveillance will visually inspect all areas in the school where ACBM have been identified in the AMP, and record the date of surveillance, their name, and any changes in the ACBM condition; this information shall then be submitted to the LEA's Designated Person for inclusion in the AMP.

Refer to *Appendix E* for the Sample 6-Month Periodic Surveillance Form that may be used for conducting periodic surveillance.

## 5.3 Preventive Measures

The LEA shall institute appropriate preventive measures to eliminate the reasonable likelihood that ACBM will become damaged, deteriorated, and/or delaminated.

Refer to *Appendix F* for preventive measures designed for various types of ACBM that may exist in the school buildings.

## 5.4 Abatement (Removal) Cost Estimates

Costs for abatement (removal) of all ACBM in the building are as follows:

**Table 2**  
**Abatement Cost Estimates**

<b>Material</b>	<b>Location</b>	<b>Estimated Quantity</b>	<b>Estimated Contractor Cost</b>
9" x 9" Tan Floor Tile	Maintenance Building Restroom	36 SF	\$500
Gray Fiber-Reinforced Cement Ceiling Panels	Storage Building - Left Garage Bay	200 SF	\$3,000
Gray Drywall	Storage Building - Center & Right Garage Bays & 1st Floor Walls & Ceilings	6,000 SF	\$36,000
White Joint Compound	Storage Building - Right Garage Bay		

SF = Square Feet

Asbestos training costs for custodial and maintenance workers (under O&M Program) are as follows:

**Table 3**  
**Asbestos Training Cost Estimates**

<b>Training Course</b>	<b>Estimated Cost</b>
Two-Hour Asbestos Awareness Training (Annual)	\$75/Person/Year
Asbestos Coordinator/LEA Designated Person Initial Training	\$250/Person
Asbestos Coordinator/LEA Designated Person Annual Refresher Training	\$200/Person/Year
Asbestos Operations & Maintenance Initial Training	\$300/Person
Asbestos Operations & Maintenance Annual Refresher Training	\$150/Person/Year
Three-Year Re-Inspection & AMP Update	\$5,000 - \$8,000

## 6 EPA Accreditation Requirements

EPA accreditations and MADLS Asbestos Inspector and Management Planner certifications for Mr. Mallett and Mr. Diedricksen are provided in *Appendix G*.

Report prepared by Environmental Technician, Regina Scott.

Reviewed by:



Dustin A. Diedricksen  
Senior Project Manager

## Appendix A

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### Existing Records Checklist

## Existing Records Checklist

Local Education Agency (LEA): Bourne Public Schools  
36 Sandwich Road  
Bourne, MA 02532

School Building: Maintenance and Storage Buildings at Peebles Elementary School

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

DOCUMENTATION		LOCATION	
		School	LEA Office
1	Original AHERA Operations and Maintenance Plan/Inspection Report	No	No
2	Three Year Re-Inspection (First and All Subsequent Inspections)	No	1994, 1998, 2001, 2004, 2011, & 2014
3	Parents and Teachers Notifications (Annually Since Last Re-Inspection)	Yes (In Student Handbook & Website)	Yes (In Student Handbook & Website)
4	Designated Person Identification and Proper Training	Yes	Yes
5	Designated Person Periodic Surveillance (Once Every Six Months)	Yes	Yes
6	Maintenance Staff Awareness Training Records	No	No
7	Outside Vendor Awareness Notification	No	No
8	Asbestos Warning Signs and Labels (Required Posting in Boiler Rooms and Mechanical Spaces Only)	N/A	Yes
9	Response Action Records (Includes Any Abatement Conducted Since Last 3-Year Re-Inspection)	Yes	Yes

Comments: Items marked “No” indicate not present/available at the time of this inspection.

Inspector (LEA Office): Robert Mallett

Date: December 8, 2017

Inspector (School): Robert Mallett

Date: December 8, 2017

## Appendix B

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### Re-Inspection Form 1

School: Maintenance & Storage Buildings at Peebles Elementary School  
 Address 70 Trowbridge Road, Bourne, MA

Date(s) of Original Inspection: 1988  
 Date(s) of Subsequent Re-Inspections: 1994, 1998, 2001, 2004, 2007, 2011, 2014, & 2017

Homogeneous Material			Material Category	Friability	Assessment Category (1-7)	Recorded Locations	Response Actions Taken/Renovations/Other Comments
Sample Number	Asbestos Content	Material Description					
Assumed ACBM	Assumed ACBM	9" x 9" Tan Floor Tile	Misc.	NF	5	Maintenance Building Restroom	
Assumed ACBM	Assumed ACBM	Gray Fiber-Reinforced Cement Board Panels	Misc.	NF	5	Storage Building - Left Garage Bay	
Assumed ACBM	Assumed ACBM	Gray Drywall	Misc.	NF	5	Storage Building - Center & Right Garage Bays & 1st Floor Walls & Ceilings	
Assumed ACBM	Assumed ACBM	White Joint Compound	Misc.	NF	5	Storage Building - Right Garage Bay	

Information abstracted by: Robert Mallett Date: December 8, 2017

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

Friability: F = Friable, NF = Non-Friable

AHERA Assessment Categories:

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



## Appendix C

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### Re-Inspection Form 2

School: Maintenance & Storage Buildings at Peebles Elementary School

Date of Re-Inspection: December 8, 2017

Homogeneous Material: 9" x 9" Tan Floor Tile

Sample ID Number: Assumed ACBM

ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	Friability	Estimated Quantity	Assessment Category	Physical Description	Recommended Response Action(s)	Date Action Completed
Maintenance Building Restroom	NF	36 SF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>February 16, 2018</u>	
Inspector's Name: <u>Robert Mallett</u> Inspector Signature: _____ Accreditation #/State: <u>AI900557/MA</u> Expiration Date: <u>06/01/2018</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature: _____ Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2018</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

School: Maintenance & Storage Buildings at Peebles Elementary School

Date of Re-Inspection: December 8, 2017

Homogeneous Material: Gray Fiber-Reinforced Cement Board Ceiling Panels

Sample ID Number: Assumed ACBM

ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	Friability	Estimated Quantity	Assessment Category	Physical Description	Recommended Response Action(s)	Date Action Completed
Storage Building – Left Garage Bay	NF	200 SF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>February 16, 2018</u>	
Inspector's Name: <u>Robert Mallett</u> Inspector Signature: _____ Accreditation #/State: <u>AI900557/MA</u> Expiration Date: <u>06/01/2018</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature: _____ Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2018</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

School: Maintenance & Storage Buildings at Peebles Elementary School

 Date of Re-Inspection: December 8, 2017

 Homogeneous Material: Gray Drywall

 Sample ID Number: Assumed ACBM


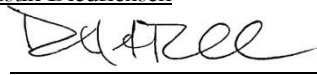
ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	Friability	Estimated Quantity	Assessment Category	Physical Description	Recommended Response Action(s)	Date Action Completed
Storage Building - Center & Right Garage Bays & 1st Floor Walls & Ceilings	NF	6,000 SF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>February 16, 2018</u>	
Inspector's Name: <u>Robert Mallett</u> Inspector Signature: _____ Accreditation #/State: <u>AI900557/MA</u> Expiration Date: <u>06/01/2018</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature: _____ Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2018</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

School: Maintenance & Storage Buildings at Peebles Elementary School

Date of Re-Inspection: December 8, 2017

Homogeneous Material: White Joint Compound

Sample ID Number: Assumed ACBM

ACBM RE-INSPECTION FINDINGS					MANAGEMENT PLANNER RECOMMENDATIONS	
ACBM Location(s) by Assessment Category	Friability	Estimated Quantity	Assessment Category	Physical Description	Recommended Response Action(s)	Date Action Completed
Storage Building - Right Garage Bay	NF	30 SF	5	ACBM with potential for damage	Maintain under O&M Program	Ongoing
Were additional samples of this ACBM collected? No					Date of Management Planner Review: <u>February 16, 2018</u>	
Inspector's Name: <u>Robert Mallett</u> Inspector Signature: _____  Accreditation #/State: <u>AI900557/MA</u> Expiration Date: <u>06/01/2018</u>					Management Planner Name: <u>Dustin Diedricksen</u> Management Planner Signature: _____  Accreditation #/State: <u>AP900425/MA</u> Expiration Date: <u>04/05/2018</u>	
I, the LEA's Designated Person, have read and understood the recommendations made above: _____  Date: _____						

## Appendix D

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### Newly Installed Materials Safety Data Sheets

**To be Provided by LEA**

## Appendix E

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### Sample 6-Month Periodic Surveillance Form

### Sample 6- Month Periodic Surveillance Form

Local Education Agency (LEA): Bourne Public Schools

Facility Name: Maintenance & Storage Buildings at Peebles Elementary School

Date of Surveillance: \_\_\_\_\_

#### ACBM Damage Report

Asbestos-Containing Building Material	Location	Previous Condition	Present Condition	Change in Condition (Yes/No)	Estimated Damaged Quantity	Comments
9" x 9" Tan Floor Tile	Maintenance Building Restroom	G				
Gray Fiber-Reinforced Cement Ceiling Panels	Storage Building - Left Garage Bay	G				
Gray Drywall	Storage Building - Center & Right Garage Bays & 1st Floor Walls & Ceilings	G				
White Joint Compound	Storage Building - Right Garage Bay	G				

Conditions: D = Damaged; F = Fair; G = Good; IA = Inaccessible; N/A = Not Applicable; SD = Significant Damage; SF = Square Feet

Surveillance conducted by: \_\_\_\_\_  
(print name) (signature)

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

Date: \_\_\_\_\_



## Appendix F

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### Preventive Measures

## Preventive Measures for Various Asbestos-Containing Building Materials

### A. Surfacing Materials

“Surfacing Materials” means materials in a school building that are applied by spray, trowel, or otherwise applied to surfaces. These include sprayed-applied 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. When properly implemented, the following procedures will reduce the potential for fiber release:

1. Sprayed-Applied Fireproofing
  - 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-applied 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 Plasters
  - a) Identify the materials and post asbestos 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, breechings, 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 ACBM. This means they can be easily damaged, increasing the potential for fiber release. When properly implemented, the following procedures 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 Fitting, Tank, Duct & Breeching Insulations
  - 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.

## **C. Miscellaneous Materials**

“Miscellaneous Materials” are the other ACBM in a school building that are not categorized as Surfacing Materials or TSI. These include floor tiles, floor tile and carpet mastics, gypsum wallboard and joint compound, ceiling tiles, glue daubs, asbestos cement panels, cove base and associated glue, window/door 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. Wallboard and Joint Compound Assembly

- a) Since a number of different homogeneous assemblies may exist in a building, sheetrock/joint compound must be assumed to be ACM unless sample results prove otherwise. If any specific areas are going to be disturbed, samples of the material in that area should be collected and analyzed.
- 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 space above the ceiling tiles. Maintain the ceiling tiles in undamaged condition. Replace any damaged or water-stained tile.
- b) If the ceiling tiles are non-asbestos, collect samples and analyze the glue daubs to identify asbestos-content before disturbing the tiles.

## 4. Asbestos Cement Panels, Window/Door Caulking and Glazing Compounds

- a) Maintain asbestos cement panels and window/door caulking and glazing compounds in undamaged condition.

## 5. Carpet Glue, Blackboard/Tack Board Glue, Floor Tile Mastic, Cove Base, and Mastic

- a) Reduce the likelihood of fiber release by leaving materials in place.
- b) Maintain materials in good condition. Collect samples and analyze to identify asbestos-content before disturbing.

## Appendix G

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### Fuss & O'Neill EnviroScience Asbestos Accreditations & Certifications



THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DEPARTMENT OF LABOR STANDARDS

William D. McKinney,  
Director

**Asbestos Inspector**  
**ROBERT C. MALLET**  
Eff. Date 06/01/17  
Exp. Date 06/01/18  
AI900557  
Member of C.O.N.E.S.  
BOSR BOS-RENEW

18





*This is to certify that*

**Robert C. Mallett**

*has completed the requisite training, and has passed an examination for  
reaccreditation as:*

**Asbestos Inspector Refresher**

pursuant to Title II of the Toxic Substance Control Act, 15 U.S.C. 2646

Course Location

Institute for Environmental Education, Inc.  
16 Upton Drive Wilmington, MA 01887

January 5, 2017

Course Dates

17-0369-106-260110

Certificate Number

January 05, 2017

Examination Date

January 05, 2018

Expiration Date

*Wentworth*

Training Director

16 Upton Drive, Wilmington, MA 01887 Telephone 978.658.5272

[www.ieetrains.com](http://www.ieetrains.com)

**INSTITUTE FOR ENVIRONMENTAL EDUCATION**

**Commonwealth of Massachusetts**

*Department of Labor Standards*

*William D. McKinney, Director*

**Asbestos Management Planner**



**DUSTIN A. DIEDRICKSEN**

Eff. Date 03/21/17

Exp. Date 04/05/18

AP900425

Member of C.O.N.E.S.

BOSR BOS-RENEW

**18**







*This is to certify that*

**Dustin A. Diedricksen**

*has completed the requisite training, and has passed an examination for  
reaccreditation*

**Asbestos Management Planner Refresher**

pursuant to Title II of the Toxic Substance Control Act, 15 U.S.C. 2646

Course Location

Institute for Environmental Education, Inc.  
16 Upton Drive Wilmington, MA 01887

January 19, 2017

Course Dates

17-0393-136-208040

Certificate Number

January 19, 2017

Examination Date

January 19, 2018

Expiration Date

Training Director

16 Upton Drive, Wilmington, MA 01887

Telephone 978.658.5272

www.ieetrains.com

**INSTITUTE FOR ENVIRONMENTAL EDUCATION**