

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

for
Oak Ridge School

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)

Sandwich Public School District
Sandwich, Massachusetts

February 2017



FUSS & O'NEILL
EnviroScience, LLC

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FUSS & O'NEILL
EnviroScience, LLC

February 28, 2017

Mr. Jonathan Nelson
Facilities and Grounds
Sandwich Public School District
33 Water Street
Sandwich, MA 02563

**RE: Three-Year AHERA Re-Inspection and Management Plan Update
Oak Ridge School
260 Quaker Meeting House Road, East Sandwich, MA
Fuss & O'Neill EnviroScience, LLC No. 20160762.A1E**

Dear Mr. Nelson:

Enclosed is the Three-Year AHERA Re-Inspection and Management Plan Update report prepared by Fuss & O'Neill EnviroScience, LLC for the Oak Ridge School located at 260 Quaker Meeting House Road in East Sandwich, Massachusetts. AHERA services were performed for Sandwich Public School District (the "Client").

This report is an important document that must be kept on file at the school, as well as 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

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1 Introduction

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.

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 as well as 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.

1.3 Key Personnel

A. Local Education Agency (LEA)

LEA: Sandwich Public School District
Address: 33 Water Street
Sandwich, Massachusetts 02563
Phone: (508) 888-1054

B. Designated Person: Mr. Jonathan Nelson
Head of Facilities and Grounds
Address: 33 Water Street
Sandwich, Massachusetts 02563
Phone: (508) 888-3312

C. Asbestos Consultant Data

Firm: Fuss & O'Neill EnviroScience, LLC
Address: 50 Redfield Street, Suite 100
Boston, MA 02122
Phone: (617)-282-4675
Fax: (617)-282-8253

D. Asbestos Inspector

Inspector: Robert Mallett
MADLS Certification Number: AI900557
Expiration Date: 06/01/2017

E. Asbestos Management Planner:

Planner: Dustin Diedricksen
MADLS Certification Number: AP900425
Expiration Date: 04/05/2017

2 Building and Mechanical System Description

The Site building is a two-story building reportedly constructed in 1989; portable classrooms were added in 1999.

Two Weil-McLain gas-fired, hot-water boilers provide heat to the building. Hot water is transferred via a closed-loop system through the ceiling plenum to unit ventilators throughout the building.

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 28, 2016, Mr. Robert Mallett of Fuss & O'Neill EnviroScience, LLC (EnviroScience) performed the re-inspection.

A. 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

4.1 Existing Records Review

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.

Please see *Appendix A* for the checklist for existing records.

4.2 Re-Inspection Summary

The on-site portion of the re-inspection was documented on forms modeled after examples provided by the EPA and reviewed with the MADLS.

Sixteen bulk samples were collected during this re-inspection. The results can be found in Table 1. Refer to *Appendix B* for a copy of the asbestos laboratory analytical results and chain-of-custody form.

Bulk samples were last collected during the 2012 re-inspection. The results can be found in Table 1. Refer to *Appendix C* for a copy of the 2012 re-inspection asbestos laboratory results.

Using EPA protocol and criteria, none of the materials existing in the building at the time of this three-year re-inspection have been determined and/or assumed to be **ACBM**.

Using the EPA protocol, samples of the following suspect materials were collected and analyzed. The analytical results indicated that these materials are **non-ACBM**:

Table 1
Non-Asbestos-Containing Building Materials

Homogeneous Material	Location(s)	Reference & Sample Number
Joint Compound	Original Building, 1 st & 2 nd Floor Classrooms, Hallways, Offices, & Storage Rooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs 01A-01G)
Yellow Mastic Associated with Black Cove Base	Original Building, 1 st & 2 nd Floor Classrooms, Hallways, Offices, & Storage Rooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs 02A & 02B)

Homogeneous Material	Location(s)	Reference & Sample Number
Yellow Mastic Associated with Gray Carpet	Original Building & 1 st & 2 nd Floor Classrooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs 03A & 03B)
White Sink Coat	Original Building & 1 st & 2 nd Floor Classrooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs 04A & 04B)
Black Sink Coat	Original Building & 1 st & 2 nd Floor Classrooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs 05A & 05B)
1' x 1' Ceiling Tile	Original Building, 1 st & 2 nd Floor Hallways, & Room 112	AMP July 2012 Prepared by Cardno ATC (Sample IDs 06A & 06B)
Brown Glue Daub Associated with 1' x 1' Ceiling Tile	Original Building, 1 st & 2 nd Floor Hallways, & Room 112	AMP July 2012 Prepared by Cardno ATC (Sample IDs 07A & 07B)
12" x 12" White Mottled Floor Tile	Original Building, 1 st & 2 nd Floor Hallways, & Classrooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs 08A & 08B)
Black Mastic Associated with 12" x 12" Floor Tile	Original Building, 1 st & 2 nd Floor Hallways, & Classrooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs 09A & 09B)
2' x 2' Ceiling Tile	Original Building & 1 st & 2 nd Floor Classrooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs 10A & 10B)
Gypsum Wallboard	Original Building, 1 st & 2 nd Floor Classrooms, Hallways, Offices, & Storage Rooms	AMP July 2012 Prepared by Cardno ATC (Sample IDs 11A & 11B)
2' x 4' White Fissure & Dot Suspended Ceiling Tile	Portable Classrooms: Classrooms, Bathrooms, & Hallway	AMP January 2017 Prepared by EnviroScience (Sample IDs 01A & 01B-RCM-1228)

Homogeneous Material	Location(s)	Reference & Sample Number
6" Gray Vinyl Baseboard	Portable Classrooms: Classrooms, Bathrooms, & Hallway	AMP January 2017 Prepared by EnviroScience (Sample IDs 02A & 02B- RCM-1228)
Yellow Adhesive Associated with 6" Vinyl Baseboard	Portable Classrooms: Classrooms, Bathrooms, & Hallway	AMP January 2017 Prepared by EnviroScience (Sample IDs 03A & 03B- RCM-1228)
Gray Gypsum Wallboard	Portable Classrooms: Classrooms, Bathrooms, & Hallway	AMP January 2017 Prepared by EnviroScience (Sample IDs 04A & 04B- RCM-1228)
12" x 12" White with Blue Splotch Floor Tile	Portable Classrooms: Bathrooms & Hallway	AMP January 2017 Prepared by EnviroScience (Sample IDs 05A & 05B- RCM-1228)
Black Mastic Associated with 12" x 12" Floor Tile	Portable Classrooms: Bathrooms & Hallway	AMP January 2017 Prepared by EnviroScience (Sample IDs 06A & 06B- RCM-1228)
Yellow Carpet Glue	Portable Classrooms: Classrooms	AMP January 2017 Prepared by EnviroScience (Sample IDs 07A & 07B- RCM-1228)
Black Partition Wall Window Glazing Compound	Original Building at 2 nd Floor Lobby	AMP January 2017 Prepared by EnviroScience (Sample IDs 08A & 08B- RCM-1228)

AMP = AHERA Management Plan

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

Eight new suspect ACBMs 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. In accordance with EPA National Emission Standards for Hazardous Air Pollutants (NESHAP), samples of these and other exterior suspect ACM must be collected and analyzed for asbestos content prior to disturbance.

Safety Data Sheets (SDS) must be obtained and kept with the AHERA documentation for any newly-installed materials in order to meet AHERA requirements. These SDS 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*.

4.4 ACBM Physical Assessment

During inspection, suspect ACBM were separated into three EPA 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 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 linoleum, vinyl asbestos flooring, ceiling tiles, and construction mastics/adhesives.

Based on bulk sample results and building construction date, the Oak Ridge School has been determined not to contain ACBM at the time of this three-year re-inspection. Therefore, physical assessments were not required.

5 Management Plan Update

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. O & M - Not Applicable

5.2 Periodic Surveillance

At least once every six months after a management plan 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, record the date of surveillance, their name, and any changes in the ACBM condition and submit the record to the LEA Designated Person for inclusion in the AMP.

Based on bulk sample results and building construction date, the Oak Ridge School has been determined not to contain ACBM at the time of this three-year re-inspection. Therefore, physical assessments were not required.

SDS must be obtained and kept with the AHERA documentation for any newly-installed materials in order to meet AHERA requirements. These SDS must demonstrate that asbestos-containing materials were not installed in the building.

5.3 Preventive Measures

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

Based on bulk sample results and building construction date, the Oak Ridge School has been determined not to contain ACBM at the time of this three-year re-inspection. Therefore, preventative measures in regards to ACBM are not required.

SDS must be obtained and kept with the AHERA documentation for any newly-installed materials in order to meet AHERA requirements. These SDS must demonstrate that asbestos-containing materials were not installed in the building.

6 EPA Accreditation Requirements

The MADLS certifications and EPA accreditations for the individuals (Mr. Dustin Diedricksen and Mr. Robert Mallett) involved in performing the re-inspection, and updating the AMP, are provided in *Appendix E*.

Report prepared by Environmental Technician, Robert Mallett.

Reviewed by:



Dustin A. Diedricksen
Senior Project Manager

Appendix A

Existing Records Checklist

Existing Records Checklist

Local Education Agency (LEA): Sandwich Public School District
33 Water Street
Sandwich, MA 02563

School Building: Oak Ridge School

The following documentation is required to be present in both the LEA's office, as well as in 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 three-year re-inspection.

Documentation		Location	
		LEA Office	School
1.	Original AHERA Inspection/Management Plan	No	No
2.	Three year Re-inspections	2012, 2015	2012, 2015
3.	Notifications to Parents/Guardians and Teachers (yearly since last re-inspection)	No	No
4.	Designated Person Identified and Proper Training (person must be named and have appropriate training)	Yes	Yes
5.	Designated Person Periodic Surveillance (every six months since last re-inspection)	N/A	N/A
6.	Record of Awareness Training for Maintenance Staff	Yes	Yes
7.	Outside Vendor Awareness Notification	No	No
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)	N/A	N/A

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

Inspector (LEA Office): Robert Mallett

Date: December 28, 2016

Inspector (School): Robert Mallett

Date: December 28, 2016

Appendix B

Asbestos Laboratory Analytical Results and Chain-of-Custody Form

Appendix C

2012 Re-Inspection Asbestos Laboratory Results

Appendix D

Newly-Installed Materials Safety Data Sheets

To be Provided by LEA

Appendix E

EnviroScience State Certifications and EPA Accreditations