FUSS & O'NEILL
EnviroScience, LLC

October 30, 2014

Mr. Edward Donoghue
Director of Business Services
Bourne Public Schools
36 Sandwich Road
Bourne, MA 02532

Re: **Emergency Asbestos Abatement Project Monitoring Letter Report**
Peebles Elementary School - Rear Door System (D1)
70 Trowbridge Road
Bourne, Massachusetts
Fuss & O'Neill EnviroScience, LLC. No. 20121141.B1E

Dear Mr. Donoghue:

At your request, Fuss & O'Neill EnviroScience, LLC (EnviroScience) has prepared this summary letter report following completion of the asbestos abatement project conducted at Peebles Elementary School located at 70 Trowbridge Road in Bourne, Massachusetts (the "Site"). The scope of work involved abatement of asbestos-containing pipe fitting insulation (one) and the window glazing compound associated with the rear door system (D1). The project began on October 9, 2014, and was completed on October 10, 2014. Mr. Robert Mallett, a Commonwealth of Massachusetts-certified Asbestos Project Monitor from EnviroScience, performed full-time project monitoring oversight.

This report is an important document that must be included in the existing Asbestos Management Plan (AMP).

On October 9 and 10, 2014, Environmental Response Services (ERS) of Middleborough, Massachusetts abated one pipe fitting insulation in Classroom 24, and the door caulking and window glazing compound associated with door system D1. The asbestos abatement activities were conducted as part of an emergency renovation operation to repair structurally unsound exterior masonry at the Site. The interior pipe fitting insulation was added to the initial scope of work as damage was observed during the most recent Asbestos Hazard Emergency Response Act (AHERA) re-inspection. Due to the location and nature of the abatement, EnviroScience coordinated Non-Traditional Asbestos Abatement Work Practice Approval directly with the Commonwealth of Massachusetts Department of Environmental Protection (MassDEP). In addition, MassDEP provided an Emergency Waiver Number to file the Demolition Notification Form (BWP-AQ-06).

50 Redfield Street
Suite 100
Boston, MA
02122
t 617.282.4675
800.286.2469
f 617.282.8253

www.fando.com

Connecticut
Massachusetts
Rhode Island
South Carolina

FUSS & O'NEILL
EnviroScience, LLC

Asbestos-containing pipe fitting insulation, door caulking, and window glazing compound abatement was performed following procedures established in the Emergency Asbestos Abatement Project Design submitted by EnviroScience to MassDEP on October 6, 2014 (refer to attachments). Laboratory results for confirmatory sampling of ACBM are also attached. Asbestos abatement activities were performed in accordance with applicable federal, state, and local regulations.

EnviroScience provided full-time asbestos abatement monitoring during on-site abatement operations. EnviroScience conducted a final visual inspection and clearance air sampling at the asbestos abatement project completion.

Based on our observations, it is EnviroScience's opinion that the asbestos-containing pipe fitting insulation located in Classroom 24 and the door caulking and window glazing compound associated with the door system D1 have been abated in accordance with the attached Emergency Asbestos Abatement Project Design.

EnviroScience performed final clearance visual inspections of each asbestos abatement work area until a level of "no visible suspect debris" remained in the work areas. EnviroScience then performed final clearance air sampling of the abatement work areas after project completion.

Final clearance air samples were analyzed by phase contrast microscopy (PCM) in accordance with the National Institute for Occupational Safety and Health (NIOSH) Method 7400. Clearance air samples were analyzed on-site by an EnviroScience Asbestos Project Monitor who is registered on the Asbestos Analytical Registry. The analytical results of the final clearance air samples indicated total airborne fiber concentrations below the Commonwealth of Massachusetts Department of Labor Standards (MADLS) re-occupancy level of 0.010 fibers per cubic centimeter (fibers/cc) of air. EnviroScience verbally reported these analytical results to ERS prior to departing the Site. Copies of the field analytical air sample results are attached hereto.

EnviroScience performed a visual inspection after the removal of barriers to ensure no visible debris was dislodged during work area preparation activities.

FUSS & O'NEILL
EnviroScience, LLC

If you should have any questions regarding this summary letter, please do not hesitate to contact me at (617) 282-4675, extension 4703.

Report prepared by Environmental Technician, Robert Mallett.

Report reviewed by:

Dustin A. Diedricksen
Project Manager

Timothy M. Downey
Senior Project Manager

Attachments

FUSS & O'NEILL
EnviroScience, LLC

October 6, 2014
Revised

Mr. Ed Donoghue
Director of Business Services
Bourne Public Schools
36 Sandwich Road
Bourne, MA 02532

Re: Emergency Asbestos Abatement Project Design
Peebles Elementary School
70 Trowbridge Road, Bourne, Massachusetts
Fuss & O'Neill EnviroScience, LLC. No. 20121141.B1E

Dear Mr. Donoghue:

Attached please find the Emergency Asbestos Abatement Project Design for conducting emergency asbestos-containing building materials (ACBM) abatement at the Peebles Elementary School located at 70 Trowbridge Road in Bourne, Massachusetts (the "Site").

The Asbestos Abatement Contractor is required to complete and submit an asbestos notification form. The form must be submitted to the Commonwealth of Massachusetts Department of Environmental Protection (MassDEP) and to the Commonwealth of Massachusetts Department of Labor Standards (MADLS) ten business days prior to the intended project start date.

Should you have any questions regarding this procedure, please do not hesitate to call me at (617) 282-4675, extension 4703.

Sincerely,

Dustin A. Diedricksen
Project Manager

DAD/ftc

Attachments

50 Redfield Street
Suite 100
Boston, MA
02122
T 617.282.4675
f 617.282.8253

www.fando.com

Connecticut
Massachusetts
Rhode Island
South Carolina

FUSS & O'NEILL
EnviroScience, LLC

PROJECT DESIGN
FOR REMOVAL AND DISPOSAL
OF ASBESTOS-CONTAINING BUILDING MATERIALS FOR THE
PEEBLES ELEMENTARY SCHOOL,
BOURNE, MASSACHUSETTS

BACKGROUND

A. Asbestos abatement activities shall include exterior removal of asbestos-containing building materials (ACBM) associated with the door system at the east side of the Annex Building, and interior removal of one damaged mudded pipe fitting insulation behind the sink cabinet in Classroom 24 at the Site.

B. Abatement activities are anticipated to occur on October 9, 2014 to facilitate repairs to the exterior masonry; abatement of one damaged mudded pipe fitting insulation shall also occur at this time. Environmental Response Services, Inc. (ERS) will be the Massachusetts-licensed Asbestos Abatement Contractor that will conduct the emergency abatement work.

C. EnviroScience will utilize this Asbestos Project Design as a request for Non-Traditional Asbestos Abatement Work Practice Approval as required to deviate from Section of 310 CMR 7.15. The proposed asbestos abatement activities will be conducted as part of an emergency renovation operation to repair structurally unsound exterior masonry at the Site. EnviroScience will submit an application for a Non-Traditional Asbestos Abatement Work Practice Approval to the Massachusetts Department of Environmental Protection (MassDEP) on a MassDEP-approved form.

DESCRIPTION OF WORK

A. The exterior abatement scope of work shall include ACBM abatement associated with the door system at the east side of the Annex Building. The door system will be temporarily removed to facilitate repair of the exterior masonry. The door system shall then be re-installed after window components (i.e., aluminum frame, aluminum molding, glass panes, etc.) are free of suspect visible debris, as determined by a Massachusetts-certified Asbestos Project Monitor.

B. The interior abatement scope of work shall include abatement of one damaged mudded pipe fitting insulation located behind the sink cabinet in Classroom 24.

C. Work shall be performed by a Massachusetts-licensed Asbestos Abatement Contractor with certified Asbestos Workers and Supervisor(s) (the "Contractor"). Training shall be in accordance with MADLS Regulation 453 CMR 6.00.

D. Bourne Public Schools (the "Owner") shall retain the services of Fuss & O'Neill EnviroScience, LLC (EnviroScience, the "Consultant"), or other consulting firm at their discretion, who shall be responsible for providing project monitoring, final visual inspection, and final clearance air sampling services. Final clearance air samples shall be conducted using

Phase Contrast Microscopy (PCM).

E. Exterior asbestos abatement will include whole-component removal of door-system components from the building exterior. Asbestos-containing window glazing compounds and caulking will then be removed from the aluminum frame/molding pieces and plate glass (by hand tools) within a negative pressure enclosure as established herein. Residual door frame caulking will be scraped with hand tools utilizing wet-removal methods.

F. Interior asbestos abatement will include the use of a single-use glovebag (as a secondary containment) inside of a mini-enclosure containment with a contiguous one-chamber change room (to be utilized with remote 3-chambered decontamination unit).

G. The following table summarizes the locations of work at the school, and includes estimated ACBM quantities included in the abatement scope of work.

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EnviroScience, LLC

Scope of Work

Asbestos-Containing Material	Location	Estimated Quantity	Recommended Repair/Removal Method
White Window Glazing Compound; Tan Door Caulking;	Rear Entryway at Stairwell (Annex Building)	1 Door System Panel @ 7' x 14'	Prior to commencing removal of the door-system panel, the exterior and interior window/door components shall be pre-cleaned by HEPA-vacuuming and wet wiping. The interior-side of the entryway alcove shall be sealed (as a critical barrier) with two layers of 6-mil polyethylene sheeting; tarpaulin or plastic sheeting shall also extend a minimum of 10' away from the building foundation and 10' to either side of the work area to catch debris generated by the work operation. The Contractor shall then disassemble each individual component of the door-system component panel from the building exterior; this shall include removing aluminum molding pieces from the aluminum frame (by backing-out screws). Plate glass will be carefully removed by suction-cups and transferred to nearby (exterior) negative-pressure enclosure (NPE). The NPE will have a contiguous, one-chamber change-out room that shall be utilized in conjunction with a remote three-chamber decontamination unit. Aluminum frame and molding pieces shall also be transferred to the exterior NPE. Glazing compound and caulking abatement shall occur inside the NPE to minimize potential release of airborne asbestos fibers to the environment; removal will include scraping with hand tools, only. All caulking and window glazing types shall be disposed as asbestos-containing waste material (ACWM). Residual caulking at masonry shall be adequately wetted with amended water prior to removal, and shall be scraped (utilizing hand tools) as continuous wet-misting occurs (i.e., wet-removal methods shall apply). Final visual inspection of exterior work area and NPE will be conducted by a Massachusetts-certified Asbestos Project Monitor. In addition, final clearance air sampling will be conducted inside the NPE and analyzed by PCM (minimum of 5 PCM cassettes). Note: The on-site Asbestos Project Monitor will conduct air sampling (by PCM analysis) during asbestos removal at areas adjacent to work area to document airborne asbestos fiber concentrations.

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Asbestos-Containing Material	Location	Estimated Quantity	Recommended Repair/Removal Method
Pipe Fitting Insulation	Classroom 24 behind Sink Cabinet	1 EA	Prior to commencing pipe fitting insulation abatement, ERS shall pre-clean stored items within the sink cabinet by HEPA-vacuuming and wet wiping all surfaces. ERS shall then remove and dispose asbestos-containing pipe fitting insulation and debris within a mini-enclosure containment established underneath the sink. A single-use glovebag shall be used within the mini-enclosure for removal of the pipe fitting insulation. The interior of the mini-enclosure containment shall be cleaned by HEPA-vacuuming and wet wiping. A final visual inspection and final clearance air sampling by PCM analysis (minimum of 5 PCM cassettes) will be conducted by a Massachusetts-certified Asbestos Project Monitor. Note: The on-site Asbestos Project Monitor will conduct air sampling (by PCM analysis) during asbestos removal at areas adjacent to work area to document airborne asbestos fiber concentrations.
ALTERNATE			
Black Damproofing Felt/Mastic behind Brick Veneer	Exterior at Rear Entryway (area of proposed masonry repair)	<20 SF	It is not anticipated that the asbestos-containing black damproofing felt/mastic behind the brick veneer will be impacted during proposed masonry repair that is scheduled for Friday, October 10, 2014. EnviroScience observed an air gap (approximately 1") between the brick veneer and foundation wall where the damproofing material is adhered to; therefore, the exterior brick is expected to be removed without disturbance to this non-friable ACBM. If damaged damproofing material (i.e., peeling away from foundation wall) is observed during brick removal, masonry work shall immediately stop. Bourne Public School's (BPS) Designated Person, Ed Donaghue, shall then be informed, and corrective actions shall follow as appropriate. Less than 3 square feet (SF) of material may be removed by BPS personnel with 16-hour Asbestos Awareness training; ERS will remove damaged damproofing material if quantity is greater than 3 SF. Loose damproofing material shall be adequately wetted with amended water prior to removal by cutting of felt/mastic material as continuous wet-misting occurs (i.e., wet-removal methods shall apply). Scraping of residual mastic at foundation wall shall not occur as intent is not to abatement this concealed material. A final visual inspection of exterior work area will be completed by a Massachusetts-certified Asbestos Project Monitor (if applicable).

Refer to attached laboratory analytical results.

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EnviroScience, LLC

WORK PROCEDURES

A. The Contractor shall file an emergency notification to the Commonwealth of Massachusetts, MassDEP Bureau of Waste Prevention (BWP) on standard form BWP AQ 06 "Notification Prior to Construction or Demolition" and asbestos work start notifications to the MassDEP and MADLS on Asbestos Notification Form ANF-001.

B. A Massachusetts-licensed Contractor (ERS) has already been retained to perform the asbestos abatement activities.

C. Workers shall utilize disposable clothing and varied Personal Protective Equipment (PPE) as required to the work task including respiratory protection as required by selection chart established in OSHA regulation Title 29 CFR, Part 1926.1101 and MADLS regulation 453 CMR 6.00.

D. The Contractor shall perform personal exposure monitoring of workers as required by OSHA regulation Title 29 CFR, Part 1926.1101. Personal air exposure monitoring, at a minimum, shall include monitoring for twenty-five percent (25%) of the on-site work personnel, or a minimum of 2 workers per work shift.

E. Ensure no electrical equipment is energized during decontamination work and electrical power shall be obtained from external power source from the work areas or with proper Ground Fault Circuit Interrupter (GFCI) protection. The Contractor shall be responsible for the electrical work; this work must be performed by a Massachusetts-licensed electrician. Observe all OSHA lock out/tag out procedures.

WORK AREA PREPARATIONS

A. Seal off all openings including, but not limited to: windows, doors, ventilation openings, drains, grilles, diffuser grates, and any other penetration of the work areas, with two layers of polyethylene sheeting (minimum 6-mil thickness) sealed securely with tape. Doorways and openings that will not be used for passage during work must be sealed with critical barriers as required for separation of work area and occupied areas.

B. Heating, ventilating and air conditioning (HVAC) air systems shall remain deactivated in and/or through the negative pressure enclosure to prevent potential contamination and fiber dispersal to other areas of the building. During the work, vents within the work area shall be sealed with duct tape and two layers of 6-mil polyethylene sheeting.

C. Create pressure differential to obtain a minimum of four air changes per hour within the work areas by use of acceptable Negative Air Filtration Units (NAFUs) rated for at least 1,000 cubic feet per minute (CFM) for the exterior negative pressure enclosure. At least one 1,000 CFM NAFU shall be used in the negative pressure enclosure.

D. A HEPA vacuum shall run continuously during removal of pipe fitting insulation located in the Classroom 24 sink cabinet; this shall be used to create pressure differential for the mini-enclosure containment. Note that glovebag removal will be performed within the mini-enclosure containment.

E. Post asbestos warning signs in accordance with Title 29 CFR, Part 1926.1101 at all approaches to the work area. Signs shall be conspicuously posted to permit a person to read signs and take precautionary measures to avoid exposure to asbestos.

F. Maintain emergency and fire exits from the work area, or establish alternative exits satisfactory to fire officials.

G. Pre-clean floors and all horizontal surfaces (e.g., window sills, etc.) within containment areas. Windows shall be sealed as critical barriers with two layers of 6-mil polyethylene sheeting after appropriate pre-cleaning (as determined by Asbestos Project Monitor).

DECONTAMINATION SYSTEM

A. The Contractor shall establish a three-chambered remote decontamination facility (decon). The decon shall consist of an equipment room, a shower room, and a clean room, in series. A single change-out unit shall be utilized for each of the exterior negative pressure enclosure and interior mini-enclosure containment.

B. Access between the decon chambers shall be through double-flap curtain openings.

C. Occupied areas and/or building space outside the abatement work areas shall be separated from asbestos abatement work areas by means of rigid and airtight barriers.

D. Construct the decontamination system with wood or metal framing, 3/8-inch sheathing and cover both sides with a two layers of six mil polyethylene sheeting, sealed with spray glue or taped at the joints. Caulk joints watertight at floor, walls, and ceiling.

E. The Contractor shall visually inspect work area barriers several times daily to assure effective seal. The Contractor shall immediately repair defects.

ASBESTOS REMOVAL

A. The Contractor shall have a competent and qualified designated person on the project at all times during the project to ensure establishing a proper enclosure system, and proper work practices are followed, throughout the project.

B. Pre-clean all movable objects within the proposed work areas using HEPA-filtered vacuum equipment and/or wet cleaning methods as appropriate, and remove such objects from work areas to a temporary location (if necessary).

C. Pre-clean all fixed objects within the work areas; using HEPA-filtered vacuum equipment and/or wet-cleaning methods as appropriate, and enclose with a minimum of six-mil polyethylene sheeting sealed with tape.

D. Spray asbestos materials with amended water using airless spray equipment or apply approved removal encapsulant to reduce fiber release during abatement activities. Fill disposal containers as removal progresses. Seal filled containers and clean containers before removal to wash area. Wet clean each container thoroughly, double bag, and apply proper labels before moving to a holding area. Ensure that workers do not enter from uncontaminated areas into the washroom or the work area.

E. After abatement work is completed, clean all surfaces from which asbestos has been removed using HEPA-filtered vacuum equipment and wet wiped, or cleaned by an equivalent method, to remove visible material (wire brushes are not permitted). During this work, the surfaces being cleaned shall be kept wet.

F. The on-site Asbestos Project Monitor will conduct air sampling (by PCM analysis) during asbestos removal at areas adjacent to work area to document airborne asbestos fiber concentrations. If at any time during asbestos abatement the Owner's on-site Project Monitor suspects areas outside the work area are contaminated, all abatement work shall stop until the Contractor takes necessary steps to decontaminate these areas and eliminate possible causes of such contamination. Unprotected individuals shall be prohibited from entering contaminated areas until air sampling and visual inspections certify decontamination.

G. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris.

H. Sealed disposal containers, and all equipment used in the work area, shall be included in the cleanup and shall be removed from work areas. Asbestos waste shall be placed in six-mil polyethylene disposal bags, outside of bags shall be cleaned and they shall be placed in a second disposal bag (double-bagged) before removal from the work area. Clean all surfaces with HEPA-filtered vacuum equipment before wet cleaning all surfaces within work area.

I. The Owner's on-site Project Monitor shall conduct a post-abatement visual inspection with the critical barriers and door and window coverings in place. If visible accumulations or any suspect asbestos-containing dust or debris are identified in the work area, the Contractor shall repeat the cleaning until the area is visibly free of suspect ACBM debris. This shall be conducted solely at the Contractor's expense. The visual inspection will detect incomplete work, damage caused by the abatement activity, and inadequate cleanup of the work area. In addition, the on-site Project Monitor shall conduct a post-abatement visual inspection after the Contractor dismantles the work area barriers to confirm that no visible suspect debris became trapped behind critical barriers during abatement activities.

DISPOSAL OF WASTE

A. The disposal of asbestos-containing and/or asbestos-contaminated material, supplies, rags, disposable clothing, respirator cartridges, etc., shall be in compliance with requirements of and authorized by the MassDEP and EPA.

B. Asbestos waste disposal receiving facility approval must be obtained prior to commencing asbestos abatement activities. This shall include a valid operating permit and current insurance certificate.

C. A copy of the approved waste disposal authorization shall be provided to the Owner and Owner's Authorized Representative.

D. Copies of each fully-executed waste shipment record receipt shall be retained by the Owner's Authorized Representative as part of the project recordkeeping. The receipts shall be signed by the landfill operator upon receipt, and the quantity of asbestos debris leaving the work site and arriving at the landfill acknowledged.

E. All wash water and shower water shall be collected and passed through a five-micron filter to remove asbestos debris or containerized and disposed as asbestos-contaminated waste.

F. Asbestos debris shall be transported in covered and sealed vans, boxes, or dumpsters that are physically isolated from the driver by an airtight barrier. All vehicles must be properly licensed to meet Commonwealth of Massachusetts DOT requirements.

END OF PROJECT DESIGN

Asbestos Project Design Prepared by:

Fuss & O'Neill EnviroScience, LLC.
50 Redfield Street, Suite 100
Boston, MA 02122



Project Designer: Dustin A. Diedricksen
Asbestos Designer Certification No. AD000037

NPE = NEGATIVE PRESSURE ENCLOSURE

☒ = [NEGATIVE-PRESSURE] AIR HANDLING UNIT

James F. Peebles Elementary School

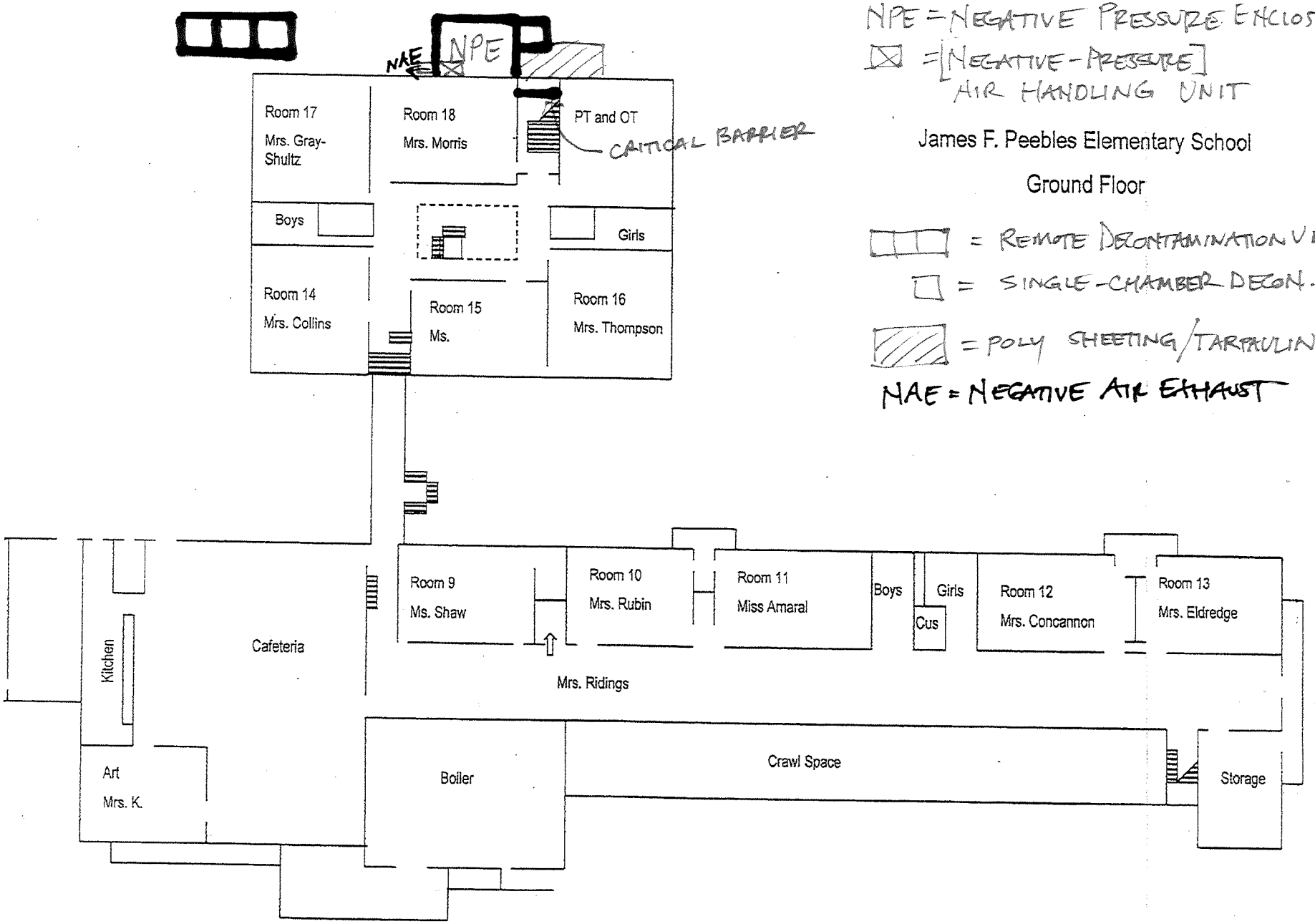
Ground Floor

= REMOTE DECONTAMINATION UNIT

= SINGLE-CHAMBER DECON.

= POLY SHEETING/TARPAULIN

NAE = NEGATIVE AIR EXHAUST



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
BWP AQ 36 Application for Non-Traditional Asbestos Abatement Work Practice Approval

A. Work Site Information

Important: When completing forms on a computer, use only the tab key to move your cursor - do not use the return key.

Facility

JAMES F. PEEBLES ELEMENTARY SCHOOL
Facility Name or Site Description

70 TROWBRIDGE ROAD
Facility Address

BOURNE | MA | 02532
City/Town | State | ZIP Code

Owner

BOURNE PUBLIC SCHOOLS
Owner Name

36 SANDWICH ROAD
Owner Address

BOURNE | MA | 02532
City/Town | State | ZIP Code

508-759-0660 |
Telephone Number | Email Address

Applicant - ☐ Check here if same as Owner and skip to next section. Otherwise, complete fields below.

DUSTIN DIEDRICKSEN - FUSS & O'NEILL ENVIROSCIENCE, LLC
Applicant Name

50 REDFIELD STREET, SUITE 100
Applicant Address

BOSTON | MA | 02122
City/Town | State | ZIP Code

617-282-4675 EXT. 4703 | DDIEDRICKSEN@FANDO.COM
Telephone Number | Email Address

B. Project Information

Asbestos Abatement Project Designer

DUSTIN DIEDRICKSEN | AD000037
Name | Department of Labor Standards (DLS) ~~Contractor~~ License Number CERTIFICATION

50 REDFIELD STREET, SUITE 100
Address

BOSTON | MA | 02122
City/Town | State | ZIP Code

617-282-4675 EXT. 4703 | DDIEDRICKSEN@FANDO.COM
Telephone Number | Email Address

Asbestos Abatement Contractor

ENVIRONMENTAL RESPONSE SERVICES, INC. | AC000412
Contractor Name | Department of Labor Standards (DLS) Contractor License Number

98 CAMBRIDGE STREET
Address

MIDDLEBORO, MA | MA | 02346
City/Town | State | ZIP Code

508-999-6229 | INFO@ENVIRORESP.COM
Telephone Number | Email Address

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
BWP AQ 36 Application for Non-Traditional Asbestos Abatement Work Practice Approval

B. Project Information (continued)

Demolition Contractor (If Applicable)

N/A
Contractor Name

Address

City/Town | State | ZIP Code

Telephone Number | Email Address

Circumstances – Check the appropriate box(es) to indicate why a Non-Traditional Asbestos Abatement Work Practice Approval is needed.

☐ Facility is being demolished under a state or local government order because it is structurally unsound and in danger of imminent collapse. (Please attach a copy of the order to your work plan proposal.)

☐ Asbestos Containing Material (ACM) or Asbestos Containing Waste Material (ACWM) was not accessible for testing, therefore not discovered until after demolition began and, as a result, cannot be safely removed.

☒ Abatement activity is being conducted as part of an emergency renovation operation.

☐ Asbestos abatement activity is being conducted to clean up and decontaminate a facility or portion of a facility where:

- ☐ Previous asbestos abatement activities were not conducted in compliance with 310 CMR 7.15.
- ☐ ACM deterioration, if not immediately attended to, would present a safety or public health hazard.

☐ Wetting during a facility renovation would unavoidably damage equipment or present a safety hazard.

☐ The project requires bulk loading of ACM and/or ACWM.

List the requirements of 310 CMR 7.15 that you are unable to comply with and explain why:

REQUEST FOR WAIVER - STRUCTURAL DAMAGE TO EXTERIOR MASONRY VENEER
REFER TO PROJECT DESIGN

Other Project Details

Types & Amounts of ACM Requiring Non-Traditional Work Practice(s): CAULKING + GLAZING A/W

☐ Friable _____ Quantity in Cubic Meters (Cubic Yards)

☒ Non-Friable 1 DOOR SYSTEM PANEL @ 7'x14' Quantity in Cubic Meters (Cubic Yards)

Location(s) of ACM in the Facility:

REAR ENTRYWAY AT STAIRWELL (ANNEX BUILDING)

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
BWP AQ 36 Application for Non-Traditional Asbestos Abatement Work Practice Approval

C. Certification

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment. I am aware that this permit application or notification shall not be deemed valid unless payment of the applicable fee is made."

Signature

Dustin A. Diedricksen
Printed Name

Project Manager/Project Designer
Title

10/06/2014
Date (MM/DD/YYYY)

D. Submission of Application

Note: MassDEP review will begin only after your submissions have been received at both locations.

STEP 1: Submit Fee Payment

Send the materials below to the P.O. box address below to:

MassDEP
P.O. Box 4062
Boston, MA 02211

☒ A copy of this completed and signed form.

☐ Fee payment of $600 (check or money order payable to "Commonwealth of Massachusetts").

The following entities are exempt from this fee:
- Cities, towns, counties or districts of the Commonwealth
- Federally recognized Indian tribe housing authorities
- Municipal housing authorities
- The Massachusetts Bay Transportation Authority (MBTA)

Entities that are exempt from the fee must still submit a copy of this completed and signed form, without payment, to the P.O. box above.

W/O PAYMENT

STEP 2: Submit Application

Send the following materials to the appropriate MassDEP Regional Office*, Attention: Asbestos Section:

☒ This original completed and signed form.

☐ A copy of the check or money order from Step 1.

☒ Your proposed work plan, describing work practices, duration and schedule. The proposal must:
- Include signature of the Asbestos Project Designer who prepared it.
- Demonstrate that the deviations from 310 CMR 7.15 and alternatives proposed will not cause any visible emissions to the outside air or pose significant risk to public health, safety or the environment.

☒ All supporting documentation.

*Find the MassDEP Regional Office for the community where this work will be done: http://www.mass.gov/eea/agencies/massdep/about/contacts/

EMSL Analytical, Inc.
7 Constitution Way, Suite 107, Woburn, MA 01801
Phone/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com bostonlab@emsl.com

EMSL Order:	131404197
CustomerID:	ENVI54
CustomerPO:	20121141.B1E
ProjectID:	

Attn: **Dustin Diedricksen**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone:	(860) 646-2469
Fax:	(888) 838-1160
Received:	09/25/14 1:00 PM
Analysis Date:	9/25/2014
Collected:	9/25/2014

Project: **20121141.B1E / Peebles Elementary School, 70 Trowbridge rd, Bourne, MA**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
01A-JH-925 *131404197-0001*	Door D1 - Gray exterior door caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
01B-JH-925 *131404197-0002*	Door D1 - Gray exterior door caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
01C-JH-925 *131404197-0003*	Door D1 - Gray exterior door caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
02A-JH-925 *131404197-0004*	Door D1 - White window glazing compound	Gray Non-Fibrous Homogeneous		98% Non-fibrous (other)	**2% Chrysotile**
02B-JH-925 *131404197-0005*	Door D1 - White window glazing compound				**Stop Positive (Not Analyzed)**
02C-JH-925 *131404197-0006*	Door D1 - White window glazing compound				**Stop Positive (Not Analyzed)**
03A-JH-925 *131404197-0007*	Door D1 - Gray door widnow glazing compound	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
03B-JH-925 *131404197-0008*	Door D1 - Gray door widnow glazing compound	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
03C-JH-925 *131404197-0009*	Door D1 - Gray door widnow glazing compound	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

Analyst(s)
Kevin Pine (12)

Steve Grise, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-107T3 and VT AL357102

Initial report from 09/25/2014 15:40:17

EMSL Analytical, Inc.
7 Constitution Way, Suite 107, Woburn, MA 01801
Phone/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com bostonlab@emsl.com

EMSL Order:	131404197
CustomerID:	ENVI54
CustomerPO:	20121141.B1E
ProjectID:	

Attn: **Dustin Diedricksen**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone:	(860) 646-2469
Fax:	(888) 838-1160
Received:	09/25/14 1:00 PM
Analysis Date:	9/25/2014
Collected:	9/25/2014

Project: **20121141.B1E / Peebles Elementary School, 70 Trowbridge rd, Bourne, MA**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos	
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**%**	**Type**
04A-JH-925 *131404197-0010*	Door D1 - Brown backer rope underneath-01	Tan Fibrous Homogeneous	98%	Cellulose	2%	Non-fibrous (other)		**None Detected**
04B-JH-925 *131404197-0011*	Door D1 - Brown backer rope underneath-01	Tan Fibrous Homogeneous	98%	Cellulose	2%	Non-fibrous (other)		**None Detected**
04C-JH-925 *131404197-0012*	Door D1 - Brown backer rope underneath-01	Tan Fibrous Homogeneous	98%	Cellulose	2%	Non-fibrous (other)		**None Detected**
05A-JH-925 *131404197-0013*	Door D1 - Tan interior door caulking	Tan Non-Fibrous Homogeneous	8%	Fibrous (other)	90%	Non-fibrous (other)	2%	**Chrysotile**
05B-JH-925 *131404197-0014*	Door D1 - Tan interior door caulking							**Stop Positive (Not Analyzed)**
05C-JH-925 *131404197-0015*	Door D1 - Tan interior door caulking							**Stop Positive (Not Analyzed)**
06A-JH-925 *131404197-0016*	Exterior - Black dampproofing behind brick veneer	Black Fibrous Homogeneous	15%	Cellulose	70%	Non-fibrous (other)	15%	**Chrysotile**
06B-JH-925 *131404197-0017*	Exterior - Black dampproofing behind brick veneer							**Stop Positive (Not Analyzed)**
06C-JH-925 *131404197-0018*	Exterior - Black dampproofing behind brick veneer							**Stop Positive (Not Analyzed)**

Analyst(s)
Kevin Pine (12)

Steve Grise, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-107T3 and VT AL357102

Initial report from 09/25/2014 15:40:17

THIS IS THE LAST PAGE OF THE REPORT.

OrderID: 131404197 **131404197**

FUSS & O'NEILL
EnviroScience, LLC

www.fando.com

50 Redfield Street, Suite 100, Boston, MA 02122 Phone (617) 282-4675 Fax (617) 282-8253

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY

Sheet 1 of 2

Project Name: Peebles Elementary School Project No. 2012.1141.B1E

Site Address: 70 Trowbridge Rd. Bourne, MA Project Manager: Dustin D.

Building Name/Number. Peebles Elementary School Total # of Samples: 18

Sample ID (01A-Initials-Date)	Material Type	Sample Location	Comments/ Quantities
01A - JH-925	Gray Exterior Door Caulking	Door D1	
01B -	↓	↓	
01C -	↓	↓	
02A -	White Window Glazing Compound		
02B -	↓		
02C -	↓		
03A -	Gray Door Window Glazing Compound		
03B -			
03C -	↓		
04A -	Brown Backer Rope Underneath -01		
04B -	↓		
04C -	↓		
05A -	Tan Interior Door Caulking		
05B -	↓		
05C -	↓	↓	

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time 3-hour

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____ Please call EnviroScience if analyses will not be completed for requested t/a/t at (617) 282-4675.

Email Results to: JHand @fando.com Do Not Mail Hard Copy Report FAX Results to: 888-838-1160.

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. ~~If NOB group samples are all negative by PLM, analyze only the "A" sample (as noted by star [*] above) by TEM NOB, on a [ ] t/a/t. Analyze a maximum of [ ] samples by TEM.~~ Call Jon @ 401-595-8270 when results are in.

Samples Collected by: Jon Hand Date: 9/25/14

Samples Sent by: JH Date: 9/25/14 Time: ~~1300~~

Shipped To: ☒ EMSL ☐ Other _____

Method of Shipment: ☐ Fed Ex ☒ Lab Drop Off ☐ Other _____

RECEIVED SEP 25 2014 By SLR 1100

OrderID: 131404197

131404197

FUSS & O'NEILL
EnviroScience, LLC

www.fando.com

50 Redfield Street, Suite 100, Boston, MA 02122 Phone (617) 282-4675 Fax (617) 282-8253

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY

Sheet 2 of 2

Project Name: Peebles Elementary School Project No. 20121141.81E

Site Address: 70 Trowbridge Rd, Bourne, MA Project Manager: Dustin D.

Building Name/Number: Peebles Elementary School Total # of Samples: 18

Sample ID (01A-Initials-Date)	Material Type	Sample Location	Comments/ Quantities
01A-JH-925	Black Dampproofing Behind Brick Veneer	Exterior	
01B-	"	"	
01C-	"	"	

Analysis Method: ☒ PLM ☐ TEM ☐ Other _____ Turnaround Time 3-hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____. Please call EnviroScience if analyses will not be completed for requested t/a/t at (617) 282-4675.

Email Results to: JHand **@fando.com** **Do Not Mail Hard Copy Report** **FAX Results to: 888-838-1160.**

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do not point count. ~~If NOB group samples are all negative by PLM, analyze only the "A" sample (as noted by star [*] above) by TEM NOB, on a [ ] t/a/t. Analyze a maximum of [ ] samples by TEM.~~

Samples Collected by: Jon Hand **Date:** 9/25/14

Samples Sent by: JH **Date:** 9/25/14 **Time:** _____

Shipped To: ☒ EMSL ☐ Other _____

Method of Shipment: ☐ Fed Ex ☒ Lab Drop Off ☐ Other _____

RECEIVED
SEP 25 2014
By SR 1:00

FUSS & O'NEILL
EnviroScience, LLC

Final Visual Inspection Form

Asbestos Abatement

Date: 10/9/14 ☒ Removal ☐ Encapsulation ☐ Enclosure ☐ Repair ☐ Cleanup

PROJECT NAME:	Peebles School-Bourne Public Schools		PROJECT NO.:	20121141.B1E
SITE LOCATION:	Classroom 24 - 70 Waterhouse St	BUILDING:	Peebles School	☒ PASS ☐ FAIL
WORK AREA:	Classroom 24 (beneath sink)			
CONTRACTOR:	Environmental Response Services			

☐ Neg Pressure Contain. ☒ Mini-Enclosure ☒ Glovebag ☐ Other (Describe Below) ☐ None

MATERIALS ABATED IN THIS SPECIFIC WORK AREA:

1. Molded Fitting	QTY:	1 EA	2.	QTY:	
3.	QTY:		4.	QTY:	
5.	QTY:		6.	QTY:	
7.	QTY:		8.	QTY:	
9.	QTY:		10.	QTY:	

SUSPECT ACM REMAINING IN CONTAINMENT NOT SPECIFIED FOR REMOVAL

1.	QTY:		2.	QTY:	
3.	QTY:		4.	QTY:	

SURFACES INSPECTED

Instructions: Check surfaces that pass. **Circle surfaces that fail.** Strike through N/A.

☒ Floor ☒ Horizontal Surfaces ☒ Pipes ~~☐ Mechanical Equipment~~
~~☐ Duct Work~~ ☒ Vertical Surfaces ~~☐ Decon Unit~~ ☒ Contractor's Equipment
~~☐ Fixtures~~ ~~☐ Enclosed Items~~ ~~☐ Waste Load Out~~ ☐ Other:

FIELD OBSERVATIONS

WORK AREA CLEARANCE:	☒ PCM	☐ TEM	☐ Visual Only	☐ None Performed

ACKNOWLEDGEMENT

I acknowledge that I inspected this work area on this day.

EnviroScience Inspector: Rob Mallett (PRINTED) Rob Mallett (SIGNATURE)

I have read and understand the inspection results.

Contractor's Supervisor: James Pollock (PRINTED) James Pollock (SIGNATURE)

FUSS & O'NEILL
EnviroScience, LLC

Final Visual Inspection Form

Asbestos Abatement

Date: 10/10/14 ☒ Removal ☐ Encapsulation ☐ Enclosure ☐ Repair ☐ Cleanup

PROJECT NAME:	Peebles School-Bourne Public Schools		PROJECT NO.:	20121141.B1E
SITE LOCATION:	Bourne, MA	BUILDING:	Peebles School	☒ PASS ☐ FAIL
WORK AREA:	East Side of School - Doorway D1			
CONTRACTOR:	Environmental Response Services, Inc.			

☐ Neg Pressure Contain. ☐ Mini-Enclosure ☐ Glovebag ☐ Other (Describe Below) ☒ None

MATERIALS ABATED IN THIS SPECIFIC WORK AREA:

* 1. Window/Door Caulking	QTY:	50 LF	2.	QTY:	
3.	QTY:		4.	QTY:	
5.	QTY:		6.	QTY:	
7.	QTY:		8.	QTY:	
9.	QTY:		10.	QTY:	

SUSPECT ACM REMAINING IN CONTAINMENT NOT SPECIFIED FOR REMOVAL

1.	QTY:		2.	QTY:	
3.	QTY:		4.	QTY:	

SURFACES INSPECTED

Instructions: Check surfaces that pass. **Circle surfaces that fail.** Strike through N/A.

☒ Floor ☒ Horizontal Surfaces ☐ ~~Pipes~~ ☒ Mechanical Equipment
☐ ~~Duct Work~~ ☒ Vertical Surfaces ☐ ~~Decon Unit~~ ☒ Contractor's Equipment
☒ Fixtures ☐ ~~Enclosed Items~~ ☐ ~~Waste Load Out~~ ☐ ~~Other:~~

FIELD OBSERVATIONS

* Door System Caulking

WORK AREA CLEARANCE:	☐ PCM	☐ TEM	☒ Visual Only	☐ None Performed

ACKNOWLEDGEMENT

I acknowledge that I inspected this work area on this day.

EnviroScience Inspector: Ros Mallett (PRINTED) _____ (SIGNATURE)

I have read and understand the inspection results.

Contractor's Supervisor: James Pollock (PRINTED) _____ (SIGNATURE)

FUSS & O'NEILL
EnviroScience, LLC

Final Visual Inspection Form

Asbestos Abatement

Date: 10/10/14 ☒ Removal ☐ Encapsulation ☐ Enclosure ☐ Repair ☐ Cleanup

PROJECT NAME:	Peebles School-Bourne Public Schools		PROJECT NO.:	20121141.B1E
SITE LOCATION:	Bourne, MA	BUILDING:	Peebles School	☒ PASS ☐ FAIL
WORK AREA:	East Side - Doorway D1			
CONTRACTOR:	Environmental Response Services, Inc			

☒ Neg Pressure Contain. ☐ Mini-Enclosure ☐ Glovebag ☐ Other (Describe Below) ☐ None

MATERIALS ABATED IN THIS SPECIFIC WORK AREA:

1. Door System	QTY:	1 ea *	2.	QTY:	
3. Glazing and caulking	QTY:		4.	QTY:	
5.	QTY:		6.	QTY:	
7.	QTY:		8.	QTY:	
9.	QTY:		10.	QTY:	

SUSPECT ACM REMAINING IN CONTAINMENT NOT SPECIFIED FOR REMOVAL

1.	QTY:		2.	QTY:	
3.	QTY:		4.	QTY:	

SURFACES INSPECTED

Instructions: Check surfaces that pass. **Circle surfaces that fail.** Strike through N/A.

☐ Floor ☐ Horizontal Surfaces ☐ Pipes ☐ Mechanical Equipment
☐ Duct Work ☐ Vertical Surfaces ☐ Decon Unit ☐ Contractor's Equipment
☐ Fixtures ☐ Enclosed Items ☐ Waste Load Out ☐ Other:

FIELD OBSERVATIONS

* Door system measured 18'x7' with 9 panes of glass. Window Glazing compound was removed inside NPE a long with door system caulking

WORK AREA CLEARANCE: ☒ PCM ☐ TEM ☐ Visual Only ☐ None Performed

ACKNOWLEDGEMENT

I acknowledge that I inspected this work area on this day.
EnviroScience Inspector: R.C. Mallett (PRINTED) _____ (SIGNATURE)

I have read and understand the inspection results.
Contractor's Supervisor: James Pollock (PRINTED) _____ (SIGNATURE)

FUSS & O'NEILL EnviroScience, LLC

Area Air Monitoring Worksheet For Asbestos Field Analysis

Form 7400-05
Edition September 2012
Supersedes previous editions

50 Redfield Street, Suite 100, Boston, MA 02122 (617) 282-4675

Project Name: Peebles School-Bourne Public Schools-Emergency Abatement Project
Project Number: 20121141.B1E
Project Manager: D. Diedricksen
Project Location: Peebles School - East Side Stairwell

Rotometer Number: F&O624
Rotometer Cal. Date: 6/24/2014
Microscope Number: 101072

Sampler Name: Rob Mallett
Analyst Name: Rob Mallett AAR# 9448
Sample Date 10/9/14 Analysis Date: 10/9/14
Reviewed By:
Reviewer's Title:

Sample ID Number	Sample Location	Activity Code/ Comment	Sample Time On	Sample Time Off	Sample Duration Minutes	Pump Number	Flow Rate (LPM) Pre	Flow Rate (LPM) Post	Flow Rate (LPM) Ave	Total Volume Liters	Fiber Count Fibers/fields	Concentration Fibers/mm²	Concentration Fibers/cc
109-RCM-FB1	Field Blank		Submit at least 2 field blanks or 10% of the number of samples.								0/100	< 7	
-FB2	Field Blank										0/100	< 7	
-01	upwind from work area	2	1432	1758	206	—	8.33	8.33	8.33	1715.94	< 5.5/100	< 7	< 0.0022
-02	Downwind from work area	2	1433	1758	205	—	8.33	8.33	8.33	1707.65	8/100	10.19	0.0023
-03	NPE - entrance	2	1434	1759	205	—	8.33	8.33	8.33	1707.65	7/100	8.92	< 0.0022
-04	Interior side of critical barrier	2	1438	1802	204	—	8.33	8.33	8.33	1699.32	< 5.5/100	< 7	< 0.0022
-05	Inside Containment classroom 24	3	~~1508~~ 1705	~~1650~~ 1870	88	—	14.88	14.88	14.88	1309.44	6/100	7.64	0.0022
-06	Inside Containment classroom 24	3	~~1508~~ 1708	~~1650~~ 1830	88	—	14.88	14.88	14.88	1309.44	7/100	8.92	0.0026
-07	Inside Containment classroom 24	3	~~1508~~ 1708	~~1650~~ 1838	88	—	14.88	14.88	14.88	1309.44	10/100	12.74	0.0037
-08	Inside Containment classroom 24	3	~~1508~~ 1708	~~1650~~ 1830	88	—	14.88	14.88	14.88	1309.44	< 5.5/100	< 7	< 0.0022
-09	Inside Containment classroom 24	3	~~1508~~ 1708	~~1630~~ 1830	88	—	14.88	14.88	14.88	1309.44	11/100	14.01	0.0041
-05	Duplicate Count										< 5.5/100	< 7	< 0.0022

Reference Method: NIOSH 7400 Issue 2, 8/15/94 Limit of Detection: 0.055 fibers/field
Sample Type: 25 mm 3 piece 0.8μ mixed cellulose ester PCM Air Monitor

CONCENTRATION (Fibers/mm2) = (SAMPLE fibers/field) – (BLANK fibers/field) / (0.00785mm²/field)

CONCENTRATION (fibers/cc) = (SAMPLE fibers/field) – (BLANK fibers/field) x (385) mm²/filter / (0.00785mm/field) x liters x 1000 cc/liter

Range	Intra Lab Sr	Inter Lab Sr
1 (5-20 fibers/100 fields)	0.34	0.57
2 (>20-50 Fibers/100 fields)	0.28	0.52
3 (>50 Fibers/100 fields)	0.27	0.43

Project Activity:

Code	Type
1	Background
2	During
3	Clearance
4	Environmental
5	Personal
6	Other

FUSS & O'NEILL EnviroScience, LLC

Area Air Monitoring Worksheet For Asbestos Field Analysis

Form 7400-05
Edition September 2012
Supersedes previous editions

50 Redfield Street, Suite 100, Boston, MA 02122 (617) 282-4675

Project Name: Peebles School-Bourne Public Schools-Emergency Abatement Project
Project Number: 20121141.B1E
Project Manager: D. Diedricksen
Project Location: Peebles School East Side Doorway D1

Rotometer Number: F&O624
Rotometer Cal. Date: 6/24/2014
Microscope Number: 101072

Sampler Name: Rob Mallett
Analyst Name: Rob Mallett AAR# 9448
Sample Date 10/10/14 Analysis Date: 10/10/14
Reviewed By:
Reviewer's Title:

Sample ID Number	Sample Location	Activity Code/ Comment	Sample Time On	Sample Time Off	Sample Duration Minutes	Pump Number	Flow Rate (LPM) Pre	Flow Rate (LPM) Post	Flow Rate (LPM) Ave	Total Volume Liters	Fiber Count Fibers/fields	Concentration Fibers/mm²	Concentration Fibers/cc
1010-RCM-FB1	Field Blank	Submit at least 2 field blanks or 10% of the number of samples.									0/100	<7	
-FB2	Field Blank										0/100	<7	
1010MC-04	Entrance side of critical barrier	2	0820	1320	300	—	4.24	4.24	4.24	1272	6/100	7.64	0.0023
-02	Ground of work area	2	0810	1324	314	—	4.24	4.24	4.24	1331.36	<5.5/100	<7	<0.0022
-03	Ground of work area	2	0815	1324	309	—	4.24	4.24	4.24	1310.16	<5.5/100	<7	<0.0022
01 ~~-04~~	NPE Entrance	2	0810	1325	315	—	4.24	4.24	4.24	1335.6	<5.5/100	<7	<0.0022
1010RCM-05	Inside NPE	3	1310	1433	83	—	14.88	14.88	14.88	1235.04	<5.5/100	<7	<0.0022
-06	Inside NPE	3	1310	1433	83	—	14.88	14.88	14.88	1235.04	<5.5/100	<7	<0.0022
-07	Inside NPE	3	1310	1433	83	—	14.88	14.88	14.88	1235.04	<5.5/100	<7	<0.0022
-08	Inside NPE	3	1310	1433	83	—	14.88	14.88	14.88	1235.04	<5.5/100	<7	<0.0022
-09	Inside NPE	3	1310	1433	83	—	14.88	14.88	14.88	1235.04	<5.5/100	<7	<0.0022
05	Duplicate Count										<5.5/100	<7	<0.0022

Reference Method: NIOSH 7400 Issue 2, 8/15/94 Limit of Detection: 0.055 fibers/field
Sample Type: 25 mm 3 piece 0.8µ mixed cellulose ester PCM Air Monitor

CONCENTRATION (Fibers/mm2) = (SAMPLE fibers/field) – (BLANK fibers/field) / (0.00785mm²/field)

CONCENTRATION (fibers/cc) = (SAMPLE fibers/field) – (BLANK fibers/field) x (385) mm²/filter / (0.00785mm/field) x liters x 1000 cc/liter

Range	Intra Lab Sr	Inter Lab Sr
1 (5-20 fibers/100 fields)	0.34	0.57
2 (>20-50 Fibers/100 fields)	0.28	0.52
3 (>50 Fibers/100 fields)	0.27	0.43

Project Activity:

Code	Type
1	Background
2	During
3	Clearance
4	Environmental
5	Personal
6	Other

C:\Users\rmallett\Desktop\forms\BSN Area PCM Field Analysis Form.docxx