

12/18/06
12

FINAL REPORT
FOR
THE ASBESTOS ABATEMENT PROJECT
AT
MCCARTHY-TOWNE SCHOOL
ACTON, MASSACHUSETTS

PROJECT NO: 98111.00

PROJECT MONITORED BY:

UNIVERSAL ENGINEERING CORPORATION
BOSTON, MASSACHUSETTS 02116



**UNIVERSAL ENGINEERING
CORPORATION**
CONSULTING ENGINEERS

100 BOYLSTON STREET BOSTON, MASSACHUSETTS 02116-4693 TEL (617) 542-8216 FAX (617) 423-0373

OTHER OFFICES:

LINCOLN, RI

September 30, 1998

Mr. Arthur Berry
Acton Public Schools
16 Charter Road
Acton, MA 01720

Reference: ASBESTOS ABATEMENT PROJECT
MCCARTHY-TOWNE SCHOOL, ACTON, MA

Dear Mr. Berry:

Thank you for providing Universal Engineering Corporation the opportunity to serve your environmental needs.

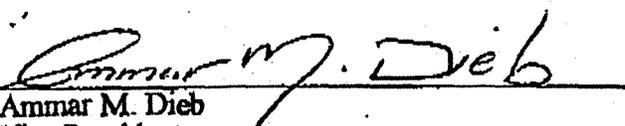
Enclosed please find the final report for the Asbestos Abatement Project at the subject location.

Please feel free to call me should you have any question.

We look forward to serving the environmental needs of the Acton Public Schools in the future.

Very truly yours,

UNIVERSAL ENGINEERING CORPORATION


Ammar M. Dieb
Vice President

MA9811100REPLET.DOC

Enclosure

SUMMARY

Universal Engineering Corporation (UEC) was contracted by the Acton Public Schools to provide on-site project monitoring and air sampling services for the asbestos abatement project at the McCarthy-Towne Elementary School, Acton. Specific air sampling results can be found in Appendix A.

Final clearance air samples indicated airborne fiber concentrations were less than 70 structures/mm² as required by the Environmental Protection Agency (EPA) in 40 CFR 763.90, 40 CFR 763 Subpart A to Appendix E, and by the Commonwealth of Massachusetts in 453 CMR 6.93, Appendix 3. General Area air sample results remained below 0.10 fibers/cc.

INTRODUCTION

Asbestos Containing Materials (ACM), were to be removed and disposed of following all state and federal regulations. Suburban Middlesex Insulation was contracted to remove and dispose of the ACM at the McCarthy-Towne Elementary School, Acton, MA.

UEC was contracted by the Acton Public Schools to provide on-site project monitoring and air sampling services and to monitor work practices and procedures of the abatement crews at the McCarthy-Towne Elementary School, Acton, MA. The scope of this monitoring included documenting daily general area samples, inside and outside the affected areas, during abatement activities; documenting final clearance and post abatement air samples of airborne fiber levels to determine and verify acceptable decontamination levels prior to the reentry of unprotected personnel into the affected areas; and documenting general information such as daily activities.

SCOPE OF WORK

The scope of work included the removal and disposal of ACM vinyl asbestos tile and mastic at kitchen.

DESCRIPTION OF WORK PROCESS

Suburban Middlesex Insulation provided a crew of up to six (6) persons to perform the required abatement of ACM in the designated area. The crew performed removal, disposal, clean-up, and encapsulation of ACM by implementing the following:

- The crew was supervised by an experienced foreman who served as liaison between the project monitor and the work crew.
- The work crew was professionally trained for asbestos related work in accordance with State and Federal Occupational Health and EPA Standards. This training included area preparation, material removal and disposal procedures, asbestos health effects, respirator use and care, and related personal hygiene practices.
- Verification was provided by Suburban Middlesex Insulation to document employee training and medical evaluations as required by regulatory standards.
- Complete enclosures were erected for containment, using 6-mil polyethylene sheeting in areas where gross removal was performed to restrict any airborne asbestos fibers from escaping the affected areas and entering non-affected areas. A negative air pressure system was implemented in these enclosures by utilizing Air Filtration Devices (AFD) equipped with High Efficiency Particulate Air (HEPA) filters, which provided 4 air changes per hour.
- Complete decontamination facilities were provided for employees to shower and change into clean clothes or disposable coveralls.
- HEPA filtered vacuum equipment was used to clean contaminated areas during abatement.
- ACM was thoroughly wet with amended water prior to and during removal procedures.
- Employee personal protective equipment included: National Institute for Occupational Safety and Health (NIOSH) approved dual cartridge half-face respirators with HEPA filters, NIOSH approved full-face powered air purifying respirators with HEPA filters, full body disposable coveralls with hoods, boots and gloves as appropriate.
- ACM and contaminated debris were double-bagged in properly labeled bags. The waste bags were cleaned prior to removal from the contaminated area. The waste shipment records can be found in Appendix B.
- A visual inspection was performed by the on-site certified Project Monitor in all areas in which work was performed by Suburban Middlesex Insulation.
- Upon completion of the removal and cleaning in the containment area, the entire area under containment was encapsulated with a bridging encapsulant to ensure complete decontamination.

DESCRIPTION OF STUDY METHODS AND LABORATORY ANALYSES

Air monitoring procedures were based on those detailed in the NIOSH Manual of Analytical Methods No. 7400 (revision #3 5/15/89) and the EPA Document 40 CFR 763, Asbestos Containing Materials in Schools, Final Rule and Notice. General area sampling was conducted to provide information regarding area contamination as affected by environmental conditions and work practices.

Background and general area samples were collected using pre- and post- calibrated low and high volume industrial hygiene air sampling pumps.

Clearance air samples were collected using pre- and post- calibrated BGI Gast high volume sampling pumps (with aggressive agitation of the air inside the work enclosures) to determine and verify effective decontamination of the work area after asbestos removal. Decontamination of a work area was considered complete when the following criteria are met:

For TEM, the arithmetic means of the asbestos structure concentrations of all samples collected inside the work area was less than or equal to 70 structures/square millimeter of filter. If the arithmetic means of all samples was found to be greater than 70 structures/square millimeter of filter, the decontamination is incomplete and the cleaning procedures was repeated.

PCM samples were collected on 0.8 micrometer pore size, 25 mm diameter mixed cellulose ester filters, held by electrically conductive, open-face filter cassettes with 50 mm extension cowls.

PCM air samples were analyzed by a Massachusetts licensed asbestos project monitor in accordance with all Federal and State regulations.

TEM samples were collected on 0.45 micrometer pore size, 25 mm diameter polycarbonate filters held by electrically conductive, open-face filter cassettes with 50 mm extension cowls.

TEM air samples were analyzed by a licensed Laboratory in accordance with NIOSH Method No. 7402. The results have been reported for each sample, and can be found in Appendix A.

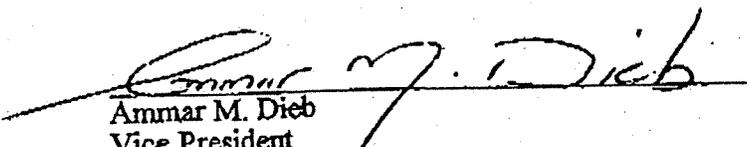
CONCLUSION

In conclusion, the asbestos abatement project at the McCarthy-Towne Elementary School, Acton, MA, has been satisfactorily completed by Suburban Middlesex Insulation. The asbestos abatement project was performed in compliance with all state and federal regulations.

The asbestos abatement project was designed by a Massachusetts licensed asbestos Project Designer, Ammar M. Dieb (AD-50619).

Project Monitoring and air sampling was performed by a Massachusetts licensed Project Monitor, Chris Hall (AM-51114).

Prepared By:


Ammar M. Dieb
Vice President

MPLE RESULTS: JOB: 98111.00

LABORATORY SAMPLE: ACTON PUBLIC SCHOOL. PROJECT: ASBESTOS MONITORING AT MCCARTHY-TOWNE SCHOOL

SEPTEMBER 30, 1998

F-661

P. 08/10

T-136

+978-264-9630

From-TOWN OF ACTON

12:18pm

Nov-18-02

MPLE NUMBER	DESCRIPTION	BY	TAKEN	TOWN	BLDG	TYPE	DATE	RESULT
1111.00-0731-SS-1-01	BACKGROUND AIR SAMPLE AT KITCHEN DURING PREP	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	PCM	07-31-98	0.007 F/CC
1311.00-0731-SS-2-02	GENERAL AREA AIR SAMPLE AT KITCHEN DURING REMOVAL	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	PCM	07-31-98	0.013 F/CC
1111.00-0731-SS-2-03	GENERAL AREA AIR SAMPLE AT KITCHEN DURING REMOVAL	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	PCM	07-31-98	0.006 F/CC
1111.00-0731-SS-0-04	FIELD BLANK	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	PCM	07-31-98	< LOD
1111.00-0731-SS-0-05	FIELD BLANK	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	PCM	07-31-98	< LOD
1111.00-0731-SS-3-06	CLEARANCE AIR SAMPLE AT KITCHEN INSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NSD
1111.00-0731-SS-3-07	CLEARANCE AIR SAMPLE AT KITCHEN INSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NSD
1111.00-0731-SS-3-08	CLEARANCE AIR SAMPLE AT KITCHEN INSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NSD
1111.00-0731-SS-3-09	CLEARANCE AIR SAMPLE AT KITCHEN INSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NSD
1111.00-0731-SS-3-10	CLEARANCE AIR SAMPLE AT KITCHEN INSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NSD
1111.00-0731-SS-3-11	CLEARANCE AIR SAMPLE AT KITCHEN OUTSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NOT READ
1111.00-0731-SS-3-12	CLEARANCE AIR SAMPLE AT KITCHEN OUTSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NOT READ
1111.00-0731-SS-3-13	CLEARANCE AIR SAMPLE AT KITCHEN OUTSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NOT READ
1111.00-0731-SS-3-14	CLEARANCE AIR SAMPLE AT KITCHEN OUTSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NOT READ
1111.00-0731-SS-3-15	CLEARANCE AIR SAMPLE AT KITCHEN OUTSIDE CONTAINMENT	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NOT READ
1111.00-0731-SS-0-16	FIELD BLANK	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NOT READ
1111.00-0731-SS-0-17	FIELD BLANK	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NOT READ
1111.00-0731-SS-0-18	CONTROL BLANK	CMH	07-31-98	ACTON	MCCARTHY-TOWNE SCHOOL	TEM	07-31-98	NOT READ

8966.00-0902-CA-2-02:JOB#-DATE-BLDG-TYPE-SAMPLE#, 1A/OA=IN-/OUTSIDE AREA TYPE=0 Blank, 1 Background, 2 Gen.Area, 3 Clearance, 4 Person Breathe Zone, 5 Post Abate, 6 Bulk

<LOD=Limit of Detection, ND=NO ASBESTOS DETECTED



LOGANO TRUCKING

A USA WASTE SERVICES COMPANY

P.O. Box 144
Portland, CT 06480
(860) 342-0667 • Fax: (860) 342-4866
Out of State 1-800-272-3867

83945

PLEASE PRINT OR TYPE IN ALL INFORMATION

54883

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Generator Number _____ P.O. # _____
 Director: Suburban Middlesex Insulating, Inc.
 Address: 823 Pleasant Street
Norwood State MA Zip 02062
 Telephone Number 781-769-9310
 Date Container Del. 7-30-98 Date of Pickup 8-14-98
 Type of Container 40 yard
 Friable Non-Friable
 Drums Drum Wrapped Other
 Approximate Volume of Asbestos Removed
5 yds.

GENERATOR/BUILDING OWNER
Acton Public Schools
 Address: 116 Charter Road
 City: Acton, MA State MA Zip 01720
 Phone Number _____

GENERATING LOCATION
McTOWNE SCHOOL
 Address: Charter Road
 City: Acton, MA State MA Zip 01720
 Phone Number _____

E.P.A. AGENCY
 CT, MA, RI, VT, NH, ME GENERATORS
 U.S. EPA - Region I
 Air Management - JFK Building
 Boston, MA 02203
 (617) 565-3265
 NY GENERATORS
 U.S. EPA - Region II
 NESHAP, Asbestos Coordinator
 26 Federal Plaza
 New York, New York 10007
 (212) 264-6770

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Signature _____

RQ, ASBESTOS, 9, NA2212, PG III

Transporter 1: USA WASTE OF CONNECTICUT, INC.
 I hereby certify that the above named material was picked up at the generator site listed above, and, if applicable delivered to the temporary storage/transfer location or final landfill destination.
 Driver: Paul Roberts Signature _____ Registration #: 25895-A-CT State / # _____ Date: 8/14/98

Transporter 2: USA Waste of CT, Inc., PO Box 144, Portland, CT 06480
 I hereby certify that the above named material was delivered without incident to the temporary storage/transfer location or final landfill destination.
 Driver: _____ Signature _____ Registration #: _____ State / # _____ Date: _____

TEMPORARY STORAGE / TRANSFER FACILITY: USA WASTE OF CONNECTICUT, INC. • 203 PICKERING STREET • PORTLAND, CT
 PHONE: (800) 272-3867 PERMIT # SW 13023
 Received By: AO Signature _____ Date: 8/14/98
 I hereby certify that the above named material has been accepted at the above named facility.

Transporter 3: _____
 I hereby certify that the above named material was delivered without incident to the destination listed below.
 Driver: _____ Signature _____ Registration #: _____ State / # _____ Date: 8/19/98

Landfill Name: SOUTHERN ALLEGHENIES DISPOSAL SVC. Phone No: 814-479-2537
 Location: HOLSOPPLE PA Permit #: 100081/CT/008/960716/ 2845
 Approximate Volume of Asbestos Received: 5 CYDS

Discrepancy If Any: _____
 I hereby certify that the above named material has been accepted and to the best of my knowledge the information provided is true and accurate.



**AHERA
THIRD THREE YEAR
RE-INSPECTION REPORT**

**AT
ACTON McCARTHY-TOWNE SCHOOL**

**FOR THE
ACTON PUBLIC SCHOOLS
16 CHARTER ROAD
ACTON, MASSACHUSETTS 01720**

PROJECT NUMBER: 98114.00

**INSPECTION DATES:
November 24-25, 1998**

**UNIVERSAL ENGINEERING
100 Boylston Street
Boston, MA 02116**

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INTRODUCTION

On October 22, 1986, President Reagan signed into law an amendment to the Toxic Substance Control Act requiring schools to determine the presence of asbestos containing building materials in all school buildings. That amendment, called the Asbestos Hazard Emergency Response Act (AHERA) required that all school buildings be visually inspected by accredited inspectors and that bulk samples of suspected materials be taken where the material was not assumed to be asbestos. It further required that management plans be created for each individual building and that the maintenance and custodial personnel receive training. The plan must be implemented and the training must be completed by July 9, 1989. This document is the Asbestos Management Plan which provides the means and the methods to effectively deal with asbestos containing building materials.

AHERA regulations also requires that each school building be re-inspected every three years and perform the following:

1. Visually reinspect, and reassess, under 40 CFR Part 763 Section 763.88, the condition of all friable known or assumed ACM.
2. Visually inspect material that was previously considered non-friable ACM and touch the material to determine whether it has become friable since the last inspection or reinspection.
3. Identify any homogeneous areas with material that has become friable since the last inspection or reinspection.
4. For each homogeneous area of newly friable material that is already assumed to be ACM, bulk samples may be collected and submitted for analysis in accordance with 40 CFR Part 763 Section 763.86 and 40 CFR Part 763 Section 763.87.
5. Assess, under 40 CFR Part 763 Section 763.88, the condition of the newly friable material in areas where samples are collected, and newly friable materials in areas that are assumed to be ACM.
6. Reassess, under 40 CFR Part 763 Section 763.88, the condition of friable known or assumed ACM previously identified.

All findings in this re-inspection report must be included in the AHERA Management Plan dated July 1989.

SUMMARY

A. Inspection:

All known or assumed to be ACBM homogeneous areas were taken from the existing Management Plans, which have been approved by the State of Massachusetts.

Each of the ACBM homogeneous areas found in the existing Management Plans were reviewed and reassessed by the accredited inspector, licensed in the State of Massachusetts. The reassessment was conducted by physically examining the ACBM or suspect materials to determine friability and level of damage. These assessments can be found in the Inspection Summary Chart located in Appendix A. The chart includes ACBM which found to be physically damaged that require corrective actions.

B. Inspection Summary Chart of Asbestos Containing Materials:

The assessment chart contains homogeneous areas¹, type of material, location of material, classification of ACBM, friability, level & type of damage and response action.

During the inspection a response action is given to each homogenous area. These response actions can vary from a Response Action 1 which requires immediate isolation of the area and removing the ACBM as soon as possible, and Response Actions 3-5 which involves the repair of damaged ACBM and operation and maintenance, to Response Action 8 which requires initiating a continuing program of operation and maintenance.

¹ Homogeneous Area: Classification type for materials of similar appearance and texture. That is, materials throughout the facility that appear to be the same are grouped as one homogeneous area.

SCHOOL SYSTEM: ACTON

SCHOOL: MCCLEARY-TOWNE

BUILDING NUMBER: 3842-4

3RD TRM

PERIODIC SURVEILLANCE

FORM LABEL	DESCRIPTION	SURFACE NO.	LAB NO.	PROTO NO.	ASBESTOS TYPE	MATERIAL	QUANTITY	FRAGILITY	LEVEL OF DAMAGE	DISTURBANCE FACTOR	RESPONSE	PERIODIC SURVEILLANCE
1	DUCT LINING	42-1-1	8820692	65-1	OX		100 SF					
2	AT-4	42-1-2	8820693	65-2	OX							
	K-10, K-11											
	K-12 CORN-9											
	ADMR REPT:											
	ADM OF A, B											
	CORRIDOR 8											
	CORRIDOR 6											
	CRT-1, 2, 3, 4											
	E-1, 2, 3, 4											
	5, 6, 7, 8											
	CATERIA											
	KITCHEN											
	AT-3	42-1-4	8820695	65-5	OX							
	K-4											
	M-1, 2, 3, 5, 6, 7, 8											
	TOTAL:						5800 SF					
	TOTAL:						2000 SF					
	ASBESTOS											
	TYPE:											
	MATERIAL											
	FRAGILITY											
	LEVEL OF DAMAGE											
	CONDITION:											
	ACCESSIBILITY:											
	DISTURBANCE FACTORS											
	VIBRATION:											
	AIR FLOW:											
	AIR FLENUM:											

CRT Chrysolite
 ASOS Amosite
 ACTI Actinolite
 ANT Anthophyllite
 CROC Crocidolite

S Surfacing
 T Thermal
 M Miscellaneous

AC Above Ceiling
 BC Below Ceiling
 NF Nonfriable
 F Friable

NO No Damage
 PD Potential For Damage
 PSD Potential For Significant Damage
 D Damage

H High
 M Medium
 L Low

H, M, L
 H, M, L
 TTS OR 50

1-26-02 SUM KIDR 11/3/02

