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**DESMARAIS ENVIRONMENTAL, INC.**  
62 Al Wood Drive Barrington, NH 03825 (603) 664-5500



**THREE-YEAR AHERA REINSPECTION**

**MOUNT ZION CHRISTIAN SCHOOL**  
**132 TITUS AVENUE**  
**MANCHESTER, NEW HAMPSHIRE**

**November 2015**

Bob Carter  
Mount Zion Christian School  
132 Titus Avenue  
Manchester, NH 03103

November 17, 2015

On November 13, 2015, Desmarais Environmental, Inc. conducted the 2015 Three-Year **Asbestos Hazard Emergency Response Act** (AHERA) asbestos reinspection for Mount Zion Christian School. The reinspection was performed to comply with EPA Regulation 40 CFR 763, “AHERA”.

The AHERA regulation requires that public and private elementary and secondary schools be reinspected every three years for any changes in the condition of assumed and confirmed asbestos-containing building materials (ACBM). Desmarais Environmental, Inc. reinspected all accessible areas within Mount Zion Christian School and noted asbestos-containing building materials (ACBM) conditions using the seven AHERA assessment categories.

### **ASBESTOS INFORMATION**

Asbestos is a term to describe six naturally occurring mineral fibers that are commonly found in a wide array of building construction materials due to the fiber strength and heat resistant properties. When asbestos containing materials become damaged or are disturbed during repair, remodeling or demolition activities; microscopic fibers become airborne. Asbestos fibers are so tiny and light that they can remain airborne for many hours. When inhaled, they can cause health problems. The three (3) most common types of asbestos are chrysotile, amosite and crocidolite. The lesser common types are tremolite, anthophyllite, and actinolite. Nearly 95% of all asbestos in the United States is chrysotile.

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## **ASSESSMENT OF ASBESTOS-CONTAINING MATERIALS**

The Environmental Protection Agency classifies asbestos-containing building materials (ACBM) into three (3) general application types.

- Surfacing Materials
  - ◆ Any material that has been sprayed-on or troweled-on, or otherwise applied to surfaces. Textured ceilings, joint compound, and fireproofing are some examples of surfacing materials.
- Thermal System Insulation (TSI)
  - ◆ Any material applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior mechanical components designed to prevent heat loss or water condensation.
- Miscellaneous Materials
  - ◆ Any material that is not surfacing or thermal system insulation. Floor tiles, ceiling tiles, and transite board are some examples of miscellaneous materials.

The assumed or confirmed asbestos-containing building materials (ACBM) are classified into one of the seven (7) EPA Classification Categories (depending on the type and condition of the material) as follows,

1. Damaged or significantly damaged thermal system insulation asbestos-containing material (ACM).
  - Thermal system insulation ACM on pipes, boilers, tanks, ducts, and other thermal system insulation equipment where the insulation has lost its structural integrity, or its covering, in whole or in part, is crushed, water-stained, gouged, punctured, missing, or not intact such that it is not able to contain fibers.
2. Damaged friable surfacing ACM.
  - Friable surfacing ACM which has deteriorated or sustained physical injury such that the internal structure (cohesion) of the material is inadequate or which has delaminated such that its bond to the substrate (adhesion) is inadequate, or which, for any other reason, lacks fiber cohesion or adhesion qualities.
3. Significantly damaged friable surfacing ACM.
  - Friable surfacing ACM in a functional space where the damage is over 10% evenly distributed or over 25% localized.
4. Damaged or significantly damaged friable miscellaneous ACM.
  - Friable miscellaneous ACM which has deteriorated or sustained physical injury such that the internal structure (cohesion) of the material is inadequate or which has delaminated such that its bond to the substrate (adhesion) is inadequate, or which, for any other reason, lacks fiber cohesion or adhesion qualities.
5. ACB I with potential for damage.
  - ACBM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities and there are indications that there is reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to factors such as changes in building use, changes in occupancy, or recurrent damage.
6. ACB I with potential for significant damage.
  - ACBM is in an area regularly used by building occupants, including maintenance personnel, in the course of their normal activities; there are indications that there is reasonable likelihood that the material or its covering will become damaged, deteriorated, or delaminated due to

factors such as changes in building use, changes in occupancy, or recurrent damage, and the material is subject to major or continuing disturbance, due to factors including, but not limited to, accessibility or, under certain circumstances, vibration or air erosion.

7. Any remaining friable ACBM or friable suspect ACBM.

**INVENTORY OF IDENTIFIED ASBESTOS-CONTAINING MATERIALS**

Location	Asbestos-containing Material	Condition	AHERA Code	Quantity (ft <sup>2</sup> )
Ground Floor – Kitchen	Linoleum	Good	5	450
Ground Floor – Mechanical Room 1	Boiler Gaskets, Roping, etc.	Enclosed	7	-
Ground Floor – Multi Purpose Room	Linoleum	Minor Damage (Cracking)	5	2,650
Ground Floor – Hallway 1	Linoleum	Minor Damage (Cracking)	5	1,625
Ground Floor – Hallway 2	Floor Tile & Mastic	Minor Damage (Cracking)	5	1,025
Ground Floor – Bathrooms Off Hallway 2	Floor Tile & Mastic	Enclosed with Floor Tile	5	600
Ground Floor – Hallway 3	Floor Tile & Mastic	Good	5	485
Ground Floor – Room 106	Floor Tile & Mastic	Enclosed with Carpet	5	971
Ground Floor – Room 104	Floor Tile & Mastic	Enclosed with Carpet	5	340
Ground Floor – Lounge	Floor Tile & Mastic	Enclosed with Carpet	5	330
Ground Floor – Mechanical Room 1	Boiler Gaskets, Roping, etc.	Enclosed	7	-
2 <sup>nd</sup> Floor – Room 204	Linoleum	Enclosed with Carpet	5	630
2 <sup>nd</sup> Floor – Science Room	Floor Tile & Mastic	Enclosed with Floor Tile	5	1,000
2 <sup>nd</sup> Floor – Science Room Storage	Floor Tile & Mastic	Enclosed with Carpet	5	125
2 <sup>nd</sup> Floor – Room 205	Linoleum	Enclosed with Carpet	5	675
2 <sup>nd</sup> Floor – Room 206	Linoleum	Enclosed with Carpet	5	675
2 <sup>nd</sup> Floor – Office with Bathroom	Linoleum	Enclosed with Carpet	5	300
2 <sup>nd</sup> Floor – Hallway 5	Linoleum	Enclosed with Carpet	5	715

<b>Location</b>	<b>Asbestos-containing Material</b>	<b>Condition</b>	<b>AHERA Code</b>	<b>Quantity (ft<sup>2</sup>)</b>
3 <sup>rd</sup> Floor – Room 304	Linoleum	Enclosed with Carpet	5	650
3 <sup>rd</sup> Floor – Administration Office	Linoleum	Enclosed with Carpet	5	140
3 <sup>rd</sup> Floor – Head Master’s Office	Linoleum	Enclosed with Carpet	5	175
3 <sup>rd</sup> Floor – Room 303	Linoleum	Enclosed with Carpet	5	200
3 <sup>rd</sup> Floor – Room 305	Linoleum	Enclosed with Carpet	5	115
3 <sup>rd</sup> Floor – Room 307	Linoleum	Enclosed with Carpet	5	100
3 <sup>rd</sup> Floor – Hallway 6	Linoleum	Enclosed with Carpet	5	260
3 <sup>rd</sup> Floor – Hallway 7	Linoleum	Enclosed with Carpet	5	215

\*All information pertaining to identified asbestos-containing materials and their locations were taken from the original Management Plan and walk through.

\* No changes in condition were noted during the inspection

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## **RECOMMENDATIONS**

Based on the reinspection of the AHERA 3 year reinspection performed on November 13, 2015, Desmarais Environmental, Inc. makes the following recommendations:

- Any repairs and abatements should be conducted by trained and licensed personnel and documented in the Management Plan.
- ACBM in good condition, which has been under the Operations and Maintenance (O&M) Program should be maintained in the program, until such time that removal or repair is required.
- Notification that the 3 year reinspection has been completed should be performed as required by AHERA. A copy of the notification with the associated 3 year reinspection should be kept in the Management Plan.
- If renovations or demolition are to occur, a comprehensive and destructive survey would need to be completed in order to comply with State of New Hampshire Env-A 1800 (Asbestos Management and Control),
  - Under Env-A 1804.01, the State of New Hampshire requires that the owner/operator of a facility has an asbestos survey completed on the affected portion(s) prior to undertaking any demolition or renovation activity. According to Env-A 1802.31, the State of New Hampshire defines a facility as any institutional, commercial, public, or private building or structure, work place, ship, installation, active waste disposal site, inactive waste disposal site operated after July 9, 1981, or rental dwelling.

The project mentioned above has been completed and any changes in condition have been noted. If you have any questions regarding this report or require additional services, please do not hesitate to contact our office at (603) 664-5500.

Respectively submitted,  
Desmarais Environmental, Inc.



Raymond G. Desmarais, CIH, CSP  
New Hampshire Licensed Inspector, Management Planner & Designer  
New Hampshire License #024-IMD