Air & Bulk Sampling Report

Location:

Bayberry Elementary School –
Room C-124
113 Bayberry Lane
Watchung, NJ 07069

Prepared For:

Watchung Borough Schools
Board of Education Office
1 Dr. Parenty Way
Watchung, NJ 07069

Date Performed:
January 8, 2019
AHERA Consultants, Inc. has been retained by Watchung Borough Schools to assess floor tile disturbance in Classroom C-124. Our Inspector, Joseph Capone arrived at the site to assess the situation and determine a resolution. Based on our observation, we advised them to perform air sampling to ensure fibers were not airborne. Additionally, we would perform bulk sampling of the 9 x 9 Floor Tile Mastic at the Bayberry Elementary School for asbestos content to plan the abatement of the materials. Our Inspector noted two (2) layers of carpeting on top of the portion of the room's floor tile. The room is approximately 900 sf.

The purpose of the asbestos bulk sampling was to identify asbestos containing materials (ACM's) to facilitate a planned abatement.

Physical inspection and associated collection of air and bulk material samples for asbestos content analysis was performed on January 8, 2019 by Joseph Capone, a USEPA Accredited asbestos building inspector.

A visual inspection of the limited area impacted by the aforementioned activities was conducted for suspect asbestos containing building materials (ACBM). Air and Bulk material samples were collected in compliance with 40 CFR, Part 763.86.

The following area was surveyed:

- Room C-124

The scope of our survey did not include "Non Accessible Areas" i.e. encrachment through interior architectural enclosures, nor the dismantlement of mechanical equipment. If during the course of renovation or demolition, any suspect materials are encountered; all construction activities should cease and an accredited inspector called to survey and sample the area.
Air sampling was accomplished utilizing a High Volume Air Sampling pump and analyzed utilizing NIOSH 7400. Bulk sampling of suspected ACBM was accomplished by extracting a representative piece of the material in question and transferring it into individual airtight plastic sample containers. Identification numbers were assigned and recorded on field data collection sheets / Chain of Custody forms.

During the survey & bulk sample collection activity, USEPA 40 CFR, Part 763, the Asbestos Hazard Emergency Response Act (AHERA) protocol was utilized.

All bulk samples were delivered to an independent laboratory and analysis for asbestos content was performed via “New Jersey Protocol” Polarized Light Microscopy (PLM) / Transmission Electron Microscopy (TEM) in accordance with N.J.A.C. 8:60 and 12:120 via EPA 600/R-93/116\(^1\). Air samples were delivered and analyzed under NIOSH 7400.

\(^1\)It is recommended that all samples analyzed by PLM whose results indicate that a sample contains less than one percent asbestos be subsequently analyzed via Transmission Electron Microscopy (TEM) (Method for the Determination of Asbestos in Bulk Building Materials EPA/600/R-93/116, July 1993) to confirm / refute asbestos content.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Room Functional Space # / Location</th>
<th>Description of Material</th>
<th>Analysis Method</th>
<th>Asbestos Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>BES-100</td>
<td>Room C-124</td>
<td>9 x 9 Floor Tile Mastic Only</td>
<td>PLM, TEM</td>
<td>NAD, 0.85% Chrysotile</td>
</tr>
<tr>
<td>BES-101</td>
<td>Room C-124</td>
<td>9 x 9 Floor Tile Mastic Only</td>
<td>PLM</td>
<td>NAD</td>
</tr>
</tbody>
</table>

* (NAD = No Asbestos Detected)

Not Submitted / Insufficient Material – Not enough material was included in sample.

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Room Functional Space # / Location</th>
<th>Location</th>
<th>Analysis Method</th>
<th>Fibers/cc</th>
</tr>
</thead>
<tbody>
<tr>
<td>WES-01</td>
<td>Room C-124</td>
<td>C 124 Sample 1</td>
<td>PCM</td>
<td>0.005</td>
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<tr>
<td>WES-02</td>
<td>Room C-124</td>
<td>C 124 Sample 2</td>
<td>PCM</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td>WES-03</td>
<td>Room C-124</td>
<td>C 124 Sample 3</td>
<td>PCM</td>
<td>&lt;0.002</td>
</tr>
<tr>
<td>WES-04</td>
<td>Lot Blank</td>
<td>Lot Blank</td>
<td>PCM</td>
<td>Field Blank</td>
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<tr>
<td>WES-05</td>
<td>Field Blank</td>
<td>Field Blank</td>
<td>PCM</td>
<td>Field Blank</td>
</tr>
</tbody>
</table>

Section V

Conclusion / Actions Required

All air samples collected were within acceptable limits of 0.010 f/cc for re-occupancy. Client should incorporate the results of this assessment into your facility's asbestos management plan so that the information can be utilized in future investigations.

All actions taken in regards to asbestos containing materials (ACM) should be in compliance with any applicable federal, state and local regulations or codes that may apply to handling i.e., clean-up, removal, enclosure, disposal etc.

If the subject facility is an educational facility, NJ county government building, daycare or public facility who leases to any of the aforementioned entities, then asbestos abatement activities are
regulated by the New Jersey Asbestos Hazard Abatement Sub code (N.J.A.C. 5:23-8, the “Sub code” or Subchapter 8). The Sub code imposes procedural and organizational requirements on asbestos abatement projects. Among these are the requirements that each abatement project be managed / monitored by an authorized Asbestos Safety Control Monitor (ASCM) firm (such as AHERA Consultants, Inc.).

**Materials requiring abatement prior to renovations:**
- Floor Tile
- Mastic - <1% Chrysotile

An asbestos removal project during a District break of the entire classroom will take place to remove the carpet, floor tile, and mastic. Until this occurs, the broken tile <10 sf should be HEPA vacuumed by an abatement contractor or trained personnel.

<table>
<thead>
<tr>
<th>Section VI</th>
<th>Laboratory Results</th>
</tr>
</thead>
</table>

See attached laboratory sample analysis results.

END OF REPORT
Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 2, 8/15/94

<table>
<thead>
<tr>
<th>Sample</th>
<th>Location</th>
<th>Sample Date</th>
<th>Volume (L)</th>
<th>Fibers</th>
<th>Fields</th>
<th>LOD (fibers/c)</th>
<th>Fibers/mm²</th>
<th>Fibers/cc</th>
<th>Notes</th>
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<tbody>
<tr>
<td>WES-01</td>
<td>C-124 Sample 1</td>
<td>01/08/2019</td>
<td>1200</td>
<td>11.8</td>
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<td>15.0</td>
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<td>WES-02</td>
<td>C-124 Sample 2</td>
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<td>WES-03</td>
<td>C-124 Sample 3</td>
<td>01/08/2019</td>
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<td>&lt;5.5</td>
<td>100</td>
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</tbody>
</table>

The results reported have been blank corrected as applicable.

Limit of detection is 7 fibers/mm². Intra-laboratory SR values: 5-20 fibers = 0.30, 21-50 fibers = 0.26, 51-100 fibers = 0.2. Inter-laboratory SR values: Average of EMSL, round robin data = 0.32. The laboratory is not responsible for data reported in fibrous, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. This report may not be reproduced, except in full, without written approval by EMSL. The test results contained within this report meet the requirements of NELAP unless otherwise noted. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Analysis(s):
Kurt Carlson PCM 5

Signed:
Chayut Sue Leo, Laboratory Manager
or other approved signatory

Initial report from: 01/08/2019 20:31 PM

<table>
<thead>
<tr>
<th>Sample</th>
<th>Description</th>
<th>Appearance</th>
<th>% Fibrous</th>
<th>% Non-Fibrous</th>
<th>Asbestos % Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>BES-100</td>
<td>C-124 - 9x9 FT Mastic Only</td>
<td>Black Non-Fibrous Homogeneous</td>
<td>&lt;1% Cellulose</td>
<td>4% Quartz 15% Ca Carbonate 81% Non-fibrous (Other)</td>
<td>None Detected</td>
</tr>
<tr>
<td>Project: 19-4001/Watchung School District, Bayberry Elementary School, 113 Bayberry Lane, Watchung, NJ</td>
<td></td>
<td></td>
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Report amended: 01/09/2019 09:24:34
Replicates initial report from: 01/08/2019 19:03:05
Reason Code: Client-Change to Sample Description

ASB_PLM_0008_0001 - 1.78 Printed: 1/9/2019 9:25 AM
<table>
<thead>
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<th>Sample ID</th>
<th>Description</th>
<th>Appearance</th>
<th>% Matrix Material</th>
<th>% Non-Asbestos Fibers</th>
<th>Asbestos Types</th>
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<tbody>
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<td>BES-100</td>
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<td>Black Fibrous Homogeneous</td>
<td>99.14 Other</td>
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<td>0.86% Chrysotile</td>
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</tbody>
</table>

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

Attention: Ahera Consultants, INC
Ahera Consultants, Inc.
PO Box 365
Oceanville, NJ 08231-0385

Project: 19-4001/Watchung School District, Bayberry Elementary School, 113 Bayberry Lane, Watchung, NJ

EMSL Order: 051900119
Customer ID: AHER50
Customer PO: 
Project ID: 
Phone: (609) 652-1833
Fax: (609) 652-1140
Received Date: 01/08/2019 2:55 PM
Analysis Date: 01/10/2019
Collected Date: 01/08/2019

*Analysis(s)*

Susan Pollack (1)

Chaiyut Sae Lao, Laboratory Manager
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc, Piscataway, NJ NYS ELAP 11423, NJ NELAC 12037

Initial report from: 01/10/2019 11:06:46

Printed 1/10/2019 11:06:50AM