

# **ASBESTOS BUILDING INSPECTION REPORT**

for

Michigan State University  
Office of Environmental and Occupational Safety  
East Lansing, Michigan 48823

at the

Mason/Abbot Hall  
Building 302/303  
East Lansing, Michigan 48823

Inspection conducted by

Fibertec Industrial Hygiene Services, Inc.  
1914 Holloway Drive  
Holt, Michigan 48842

Project #20646-1

Project dates: May 9 – 10, 2005

Final Report date: June 10, 2005

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INTRODUCTION

Fibertec Industrial Hygiene Services, Inc. (Fibertec IHS) was retained by the Michigan State University Office of Environmental Safety to perform an asbestos building inspection in Mason/Abbot Hall building. The project was discussed with Ms. Mary Lindsey-Frary of the Michigan State University Office of Environmental and Occupational Safety prior to beginning the fieldwork. Ms. Lindsey-Frary requested a comprehensive asbestos building inspection, including the collection of an appropriate number of bulk asbestos samples in accordance with the provisions of the Asbestos in Construction Standard, 29 CFR 1926.1101 (k)(2)(i).

The asbestos building inspection took place from May 9 through May 10, 2005. During the inspection, bulk samples were collected and quantities of suspect asbestos-containing materials were estimated.

CERTIFICATION

The asbestos building inspection was conducted by John Luna, Adam Cobb and Kristin Thick, all State of Michigan Accredited Asbestos Building Inspectors. Mr. Luna, Mr. Cobb and Ms. Thick also maintain accreditation as Asbestos Contractor Supervisors.

Steve Day, John Sink and Sean Hillaker, all trained Polarized Light Microscopists, analyzed all bulk asbestos samples in the Fibertec IHS Polarized Light Microscopy (PLM) laboratory, which maintains current National Voluntary Laboratory Accreditation Program (NVLAP) accreditation (Lab Code 101510-0).

GENERAL INSPECTION PROCEDURES

In an effort to identify asbestos-containing material (ACM) at the Mason/Abbot Hall building, an extensive inspection procedure was followed. A visual inspection of the building was combined with the collection of an appropriate number and distribution of bulk samples. Material sampling that would potentially compromise the weather tight integrity of the building envelope was not conducted, (e.g., window and door frame compound, roofing). The following rooms in the Mason Hall building were not accessible during the inspection: 8A, 9, 17, 158A, 215, 217, 223, 243, 251, 320, 327, 351 and 354. The following rooms in the Abbot Hall building were not accessible during the inspection: 15B, 49B, 53A, 302, 312, 313, 321, 335, 336, 350, 360, 371A, 374A and 375. The following rooms in the Mason/Abbot Kitchen were not accessible during the inspection: K31, K32A and K67. Additionally, decorative plaster was not sampled sufficiently to refute the presumption that the material was ACM. This limited sampling was performed at the University's request so as not to deface the decorative plaster.

Determination of suspect ACM was based on visual examination, bulk sample analysis and material age. Specifically, materials similar in color and texture were classified into homogenous areas (e.g., white, smooth wall and ceiling plaster). An appropriate number of samples were collected from material in each homogenous area. The samples were analyzed by Polarized Light Microscopy (PLM) in the Fibertec IHS PLM Laboratory. When the results of analysis of all samples from a homogenous area indicate no asbestos present (less than or equal to one percent), the homogenous area is considered to be a non-asbestos containing material. When the results of analysis indicate asbestos present (in a quantity greater than one percent) in just one sample of those collected from a single homogenous area, the material in the entire homogenous area must be considered asbestos-containing.

Destructive testing (i.e., demolition) was not conducted as part of this asbestos building inspection. Quantities of ACM shown in pipe chases, above drywall ceilings or other inaccessible areas have been estimated. Additionally, some ACM hidden from view (e.g., pipe insulation in inaccessible pipe chases, between walls, floor leveling compound below floor tile, duct caulk on duct in mechanical shafts and vermiculite in cinderblock walls) may be present and may not have been accounted for as part of this inspection.

## RESULTS OF VISUAL INSPECTION

Based on the inspection, 48 distinct suspect asbestos-containing materials were identified in the Mason/Abbot Hall building. Some suspect asbestos-containing materials were sampled a number of times in different locations, wall and ceiling plaster being an example. All suspect asbestos-containing materials observed at the time of the inspection are listed in the Room by Room Asbestos Building Inspection Forms.

## BULK SAMPLE RESULTS

The information gathered from the inspection is included in Appendices C (Bulk Sample Log), D (Bulk Sample Analytical Report), E (Room by Room Asbestos Building Inspection Forms), F (Photograph Log), G (Floor Plan Sketches) and H (Significantly Damaged ACM).

## SUMMARY OF ASBESTOS-CONTAINING MATERIALS

The following materials were found to contain asbestos in the Mason/Abbot Hall building:

- 9" x 9" brown floor tile with cream and rust streaks and associated mastic
- 9" x 9" dark brown floor tile with cream and rust streaks and associated mastic
- 1' x 2' black floor tile and associated mastic
- Mastic under 12" x 12" cream floor tile with tan and rust streaks
- 12" x 12" brown floor tile and associated mastic
- Steam/condensate supply & return pipe joint insulation
- Steam/condensate supply & return pipe straight insulation
- 9" x 9" cream floor tile with pink and green streaks
- 12" x 12" tan floor tile with white and brown streaks
- 12" x 12" white floor tile
- 12" x 12" chocolate brown floor tile with cream streaks and associated mastic
- 9" x 9" chocolate brown floor tile with cream streaks
- 9" x 9" beige floor tile with swirls
- 9" x 9" army green floor tile with cream streaks

The following materials were assumed to contain asbestos in the Mason/Abbot Hall building:

- Fire doors and frames
- Window glazing compound
- Window and door frame caulk compound
- Black window frame caulk
- White window frame caulk
- Roofing products
- Chalkboards and associated glue pods
- Decorative ceiling plaster

The following materials were found not to contain asbestos in the Mason/Abbot Hall building:

- Plaster (smooth)
- Drywall
- Drywall joint compound
- 2' x 2' white lay-in ceiling tile with fissures and pin holes
- 12" x 12" white ceiling tile with fissures and associated glue pods
- 12" x 12" black floor tile with white specks and associated mastic
- 12" x 12" cream floor tile with tan and rust streaks
- 12" x 12" cream marble pattern floor tile and associated mastic
- 6" black cove molding and associated mastic
- 6" brown cove molding and associated mastic
- 4" black cove molding and associated mastic
- White vinyl floor tile with blue and white chips and associated mastic
- Gray sink undercoating

Gray duct caulk compound  
Ventilation duct expansion cloth  
White sink undercoating  
2' x 2' white lay-in ceiling tile with pin holes  
14" x 14" white smooth ceiling tile and associated glue pods  
White cement brick ceiling.  
Spray-on textured plaster  
2' x 2' white textured drop-in ceiling tile  
12" x 12" gray floor tile with cream streaks and associated mastic (painted black)  
12" x 12" white ceiling tile with uniform holes and associated glue pods  
4" brown cove molding and associated mastic  
Brown floor covering and associated mastic  
12" x 12" cream floor tile with aqua specks and associated mastic  
4" gray cove molding and associated mastic

## CONCLUSION

Undamaged and damaged, non-friable (cannot be crumbled, pulverized or reduced to powder by hand pressure when dry) known or assumed asbestos-containing materials, as well as damaged and undamaged, friable known asbestos-containing materials, were discovered during the course of this inspection.

In the case of domestic water supply and return pipe straight insulation and pipe joint insulation at the time of the inspection, all visible pipe straight and joint insulation were new fiberglass construction and Zeston (fiberglass enclosed in plastic) and were not sampled as a result. Where these materials of that specific system are identified and are not new construction fiberglass or Zeston, they must be assumed to be asbestos-containing.

Although the results of decorative plaster sample analysis indicate the plaster was not ACM, an insufficient number of samples were collected and this material must be assumed to contain asbestos.

This facility inspection to determine the location of asbestos-containing materials was conducted in accordance with the provisions of the Asbestos in Construction Standard, the EPA Sampling Bulletin of September 30, 1994 and current industry standards.

## RECOMMENDATIONS

Based on the information collected during this asbestos building inspection, the following recommendations are offered. These recommendations are based on currently observed conditions and may have to be adjusted if change of ownership, emergency, or other factors substantially alter the condition, use or planned future use of the building.

1. Notify the building occupants, custodians, Physical Plant personnel and others who may encounter ACM during the routine execution of their assigned work of the presence of known or assumed asbestos-containing products in or on the building. This notification must be given to any outside contractors (*e.g.*, HVAC maintenance personnel) who work within or atop the building and may disturb the asbestos-containing material(s). Depending on the specific activity being performed, maintenance or repair personnel may need to utilize personal protective equipment or other engineering controls and comply with the provisions of various asbestos regulations.
2. Provide 2-hour Asbestos Hazard Awareness Training including specific information regarding the quantity, condition and location of ACM for those individuals in the building who may encounter asbestos during the course of their work. Ensure that contractors performing work in the building have equivalent training (at a minimum) and provide appropriate documentation.
3. Plan for the proper removal of any asbestos-containing materials which may be impacted by renovation or demolition prior to any renovation or demolition within the facility.

4. Prior to disturbance of the decorative plaster, collect and analyze an additional two samples.
5. In the event of renovation or demolition where straight pipe and joints are exposed that are not new construction fiberglass or Zeston, bulk samples must be collected and analyzed or the material assumed to contain asbestos.
6. Label any ACM identified in routine maintenance areas, mechanical rooms, and custodial closets. Ceiling access hatches and access hatches should be labeled at a minimum, in accordance with 29 CFR 1910.1200(7)(vii).
7. Repair or remove areas of significantly damaged ACM. Ensure contractors performing the work are licensed, provide appropriate regulatory notification, and conduct appropriate air monitoring, including final clearance monitoring.

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