

# **ASBESTOS BUILDING INSPECTION REPORT**

for

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

at the

Bessey Hall Building  
Building #79  
East Lansing, Michigan 48823

Inspection conducted by

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

Project #22098

Project dates: May 1 – 8, 2006

Final Report date: June 5, 2006

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INTRODUCTION

Fibertec Industrial Hygiene Services, Inc. (Fibertec IHS) was retained by the Michigan State University, Office of Environmental and Occupational Safety to perform an asbestos building inspection in the Bessey 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.

The asbestos building inspection took place from May 1 – 8, 2006. During the inspection, bulk asbestos samples were collected and quantities of suspect asbestos-containing materials were estimated.

CERTIFICATION

The asbestos building inspection was conducted by John Luna and Gregg Kolodica, both State of Michigan Accredited Asbestos Building Inspectors. Mr. Luna also maintains accreditation as an Asbestos Contractor Supervisor. A copy of each inspectors credential appears in Appendix A.

Adam Mittino and Sean Hillaker, trained Polarized Light Microscopists, analyzed all bulk asbestos samples in the Fibertec IHS Polarized Light Microscopy (PLM) laboratory. The Fibertec IHS PLM laboratory maintains current National Voluntary Laboratory Accreditation Program (NVLAP) accreditation (Lab Code 101510-0). A copy of the Fibertec IHS NVLAP certificate of accreditation can be found in Appendix B.

GENERAL INSPECTION PROCEDURES

Asbestos

In an effort to identify asbestos-containing material (ACM) at the Bessey 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 asbestos samples. Material sampling that would potentially compromise the weather tight integrity of the building envelope was not conducted (*e.g.*, building caulk compound, roofing) at the request of Michigan State University (including any outside sampling). The following rooms in the Bessey Hall Building were not accessible during the inspection: B2, B2A, B6, B8A, B8B, B8C, B10, B10A, B10B, B10C, B16, 100B, 106A, 108B, 113A, 206A, 213A, 256D, and 313A.

Determination of suspect asbestos-containing material was based on visual examination, bulk sample analysis, material age and professional experience. Specifically, materials similar in color and texture were classified into homogenous areas (*e.g.*, drywall). 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 or other inaccessible areas have been estimated. Additionally, some asbestos-containing material hidden from view (*e.g.*, pipe insulation in inaccessible pipe chases and 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, 42 distinct suspect asbestos-containing materials were identified in the Bessey Hall Building. Some suspect asbestos-containing materials were sampled a number of times in different locations, 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 Asbestos Sample Locations) and H (Significantly Damaged ACM).

## SUMMARY OF ASBESTOS-CONTAINING MATERIALS

The following materials were found to contain asbestos in the Bessey Hall Building:

- Mastic on 12" x 12" tan floor tile with marble pattern (floor tile is non-asbestos containing, however, mastic will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)
- Mastic on 12" x 12" cream floor tile with white and green streaks (floor tile is non-asbestos containing, however, mastic will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)
- Mastic on 12" x 12" white floor tile with cream and gold streaks (floor tile is non-asbestos containing, however, mastic will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)
- Mastic on 12" x 12" blue floor tile with marble pattern (floor tile is non-asbestos containing, however, mastic will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)
- Mastic on 12" x 12" dark gray floor tile with marble pattern (floor tile is non-asbestos containing, however, mastic will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)
- 12" x 12" tan floor tile with cream and rust streaks
- 9" x 9" gray floor tile with pink and cream streaks and associated mastic
- Steam and condensate supply and return pipe straight insulation
- Steam and condensate supply and return pipe joint and hanger insulation
- Domestic water supply pipe joint and hanger insulation
- Hot water heating expansion tank insulation
- Light heat shield

The following materials were assumed to contain asbestos in the Bessey Hall Building:

- Chalkboards and associated glue pods
- Building caulk compound
- Gray slate caulk compound
- Roofing products and materials
- Window and door frame caulk compound
- Fire doors and frames

The following materials were found not to contain asbestos in the Bessey Hall Building:

- Spray-on fireproofing
- Smooth plaster
- Drywall
- 2' x 2' white lay-in ceiling tile with pin holes and fissures
- 2' x 2' white drop-in ceiling tile with pin holes and fissures
- 2' x 2' white drop-in ceiling tile with gouges
- 2" x 4" white lay-in ceiling tile with pin holes

12" x 12" white ceiling tile with pin holes and associated glue plods  
 12" x 12" white spline ceiling tile with pin holes and fissures and associated glue plods  
 4" light brown cove molding and associated mastic  
 4" dark brown cove molding and associated mastic  
 4" black cove molding and associated mastic  
 4" gray cove molding and associated mastic  
 9" x 9" dark brown floor tile with cream and rust streaks and associated mastic  
 12" x 12" blue floor tile with marble pattern (however, mastic contains asbestos and will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)  
 12" x 12" dark gray floor tile with marble pattern (however, mastic contains asbestos and will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)  
 12" x 12" tan floor tile with marble pattern (however, mastic contains asbestos and will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)  
 12" x 12" cream floor tile with white and green streaks (however, mastic contains asbestos and will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)  
 12" x 12" white floor tile with cream and gold streaks (however, mastic contains asbestos and will adhere to the floor tile thus contaminating the floor tile with asbestos containing material)  
 Tan vinyl flooring with blue marble pattern and associated backing  
 Brown linoleum flooring with rust streaks and associated backing  
 Brown stair tread with cream, pink and black streaks and associated mastic  
 Gray stair tread with cream streaks and associated mastic  
 Gray duct caulk compound  
 Brown duct caulk compound  
 Gray pipe chase mud packing compound  
 Ventilation duct expansion cloth  
 Ceramic tile bedding compound  
 White sink undercoating

## 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.

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 two-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. Inspect any rooms that were inaccessible during this inspection prior to any renovation or demolition.
4. Label any ACM identified in routine maintenance areas, mechanical rooms, custodial closets, and inside ceiling access hatches at a minimum, in accordance with 29 CFR 1910.1200(7) (vii).
5. Repair or remove areas of ACM that may become significantly damaged. Ensure contractors performing the work are licensed, provide appropriate regulatory notification and conduct appropriate air monitoring, including final clearance monitoring.

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