

**ASBESTOS AND LIMITED LEAD  
BUILDING INSPECTION REPORT**

for

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

at

Giltner Hall  
Building #28  
East Lansing, Michigan 48823

Inspection conducted by:

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

Project #20603-1

Project dates: April 24 – May 2, 2005

Final Report date: June 2, 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 the Giltner 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 and a limited number of paint samples in accordance with the provisions of the American Society for Testing Materials (ASTM) Standard E1729-99.

The asbestos and limited paint building inspection took place from April 24 through May 2, 2005. During the inspection, bulk asbestos samples were collected and quantities of suspect asbestos-containing materials were estimated. A limited number of paint samples were also collected.

CERTIFICATION

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

John Walker, John Sink, Steven Day and Sean Hillaker, 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).

Jeri Haney, a trained Laboratory Chemist, analyzed all lead paint samples. All samples were analyzed in the Fibertec, Inc. Analytical Laboratory, which maintains current National Environmental Laboratory Accreditation Program (NELAP) accreditation (Lab Code 100312-0).

GENERAL INSPECTION PROCEDURES

In an effort to identify asbestos-containing material (ACM) at Giltner Hall, 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 glazing compound, roofing). The following rooms in Giltner Hall were not accessible during the inspection: 24D, 33F, 34A, 35E, 42B, 57C, 104A, 114, 130J, 130L, 130M, 130N, 131, 131A, 134, 141, 146A, 147, 155, 169, 224, 230, 265, 290, 294, 305A, 305B, 322, 337, 355, 412, and 428.

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., smooth wall plaster). An appropriate number of bulk asbestos 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.

Determination of lead paint was based on visual examination and bulk sample analysis. Specifically, a sample of each observed major paint color was collected pursuant to the requirements of ASTM Standard E1729-99 Standard Practice for Field Collection of Dried Paint Samples. All samples were submitted to the Fibertec, Inc. Analytical Laboratory for analysis. When results indicate lead levels above 0.5 weight percent, the paint is considered lead-based. When the results indicate lead present below 0.5 weight percent and at or above the detected limit, the paint is considered lead-containing. When the results indicate lead present below the method detection limit, the paint is considered non lead-containing.

## RESULTS OF VISUAL INSPECTION

Based on the inspection, 72 distinct suspect asbestos-containing materials were identified in Giltner Hall. 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.

Based on the inspection, four major paint colors were identified in the Giltner Hall Building, Building #28. Each major color of paint was sampled in a manner sufficient to determine lead paint content on various building materials (which may include the same color). All major paint colors observed at the time of the inspection are listed in the Paint Sample Log.

## BULK SAMPLE RESULTS

The information gathered from the inspection is included in Appendices C (Bulk Asbestos and Paint Sample Log), D (Bulk Asbestos and Paint Sample Analytical Reports), 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 AND PAINT

The following materials were found to contain asbestos in Giltner Hall:

- Steam and condensate supply and return pipe straight insulation
- Steam and condensate supply and return pipe joint and hanger insulation
- Domestic water pipe straight insulation
- Domestic water pipe joint and hanger insulation
- Sewer drain pipe straight pipe insulation
- Sewer drain pipe joint insulation
- Gray sink undercoating
- 9" x 9" cream floor tile with brown streaks
- 9" x 9" gray floor tile with white and rust streaks
- 9" x 9" gray floor tile with white streaks
- 9" x 9" gray floor tile with swirls and associated mastic
- 9" x 9" gray floor tile with cream and black swirls
- 9" x 9" green floor tile with cream streaks and associated mastic
- 9" x 9" tan floor tile with cream, pink and brown streaks
- 9" x 9" tan floor tile with white and rust streaks and associated mastic
- 9" x 9" brown floor tile with cream streaks and associated mastic
- 9" x 9" dark brown floor tile with cream and rust streaks and associated mastic
- 9" x 9" pink floor tile with cream and red streaks and associated mastic
- 1' x 2' black floor tile and associated mastic
- 12" x 12" gray floor tile with marble pattern
- 12" x 12" tan floor tile with cream and brown streaks
- Mastic below 12" x 12" tan floor tile with white and rust streaks

Mastic below 12" x 12" tan floor tile with cream, pink and brown streaks  
Black mastic below 12" x 12" cream floor tile with marble pattern  
Ventilation duct expansion cloth  
Ventilation duct compound  
Expansion tank insulation (steam)  
Transite counter top  
Brown wood grain pattern linoleum

The following materials were assumed to contain asbestos in Giltner Hall:

Fire doors and frames  
Window and door frame caulk compound  
Window glazing compound  
Window frame glazing compound  
Roofing materials/products  
Chalkboards and associated glue pods  
Black lab sinks and table tops  
Green lab tables  
Gray lab tables  
Transite laboratory hoods  
Black window sill  
Walk-in wall safe door and frame

The following materials were found not to contain asbestos in Giltner Hall:

Plaster  
Spray-on acoustical ceiling plaster (popcorn)  
2' x 2' white lay-in ceiling tile with pin holes and fissures  
2' x 2' white lay-in ceiling tile with pin holes  
2' x 2' white drop-in ceiling tile with pin holes and fissures  
2' x 2' white drop-in ceiling tile with fissures  
2' x 2' white drop-in ceiling tile with popcorn pattern  
12" x 12" white ceiling tile with fissures and associated glue pods  
12" x 12" white ceiling tile with uniform holes and associated glue pods  
12" x 12" white splined ceiling tile with pin holes and fissures  
12" x 12" white smooth ceiling tile  
Black sink undercoating  
White sink undercoating  
12" x 12" tan floor tile with marble pattern and associated mastic  
12" x 12" white floor tile with gray specks and associated mastic  
12" x 12" blue floor tile with marble pattern and associated mastic  
12" x 12" gray floor tile with black specks and self adhesive  
Corkboard insulation and associated mastic  
4" brown cove molding and associated mastic  
6" black cove molding and associated mastic  
6" brown cove molding and associated mastic  
4" black cove molding and associated mastic  
4" white cove molding and associated mastic  
4" gray cove molding and associated mastic  
Drywall  
Drywall joint compound  
Glue pods  
Black paper insulation backing (on frame)  
Tan linoleum with blue swirls and associated mastic  
Tan linoleum with cream and black streaks and associated mastic  
Multicolored linoleum and paper backing  
Gray linoleum and associated mastic

There were no paints found (from the paint samples collected) to be lead-based in Giltner Hall.

The following paints were found to be lead-containing in Giltner Hall:

- Cream paint from the hallway wall outside of Room #306
- Cream paint from the hallway wall near Rooms #305 A-C
- White paint from the wall of the west stairwell
- White paint from the 4<sup>th</sup> floor ceiling hallway area
- Tan paint from the wall of Room #258
- Tan paint from the wall of Room #30
- Light blue paint from the wall of Room #302 (N/E corner)
- Light blue paint from the wall of Room #302 (west wall)

No paints sampled were found to be non lead-containing in Giltner Hall.

### 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.

No paints were discovered to be lead-based pursuant to the Housing and Urban Development guidelines (HUD, 0.5%) and three paints were discovered to be lead-containing. No paint was found to be non-lead-containing.

This facility inspection to determine the location of asbestos-containing materials was conducted in accordance with the provisions of the Asbestos in Construction Standard (and the EPA Sampling Bulletin of September 30, 1994), and current industry standards. The limited paint sampling was conducted pursuant to the requirements of ASTM Standard 1729-99.

### 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) or lead paints. 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 and lead standards.
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. Depending on the magnitude and complexity of the work to be performed, specifications may need to be developed to guide the contractor through the remediation process. Air monitoring during the work may also be required.
4. 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).

5. 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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