

# **ASBESTOS BUILDING INSPECTION REPORT**

for

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

at the

Life Science  
Building #183  
East Lansing, Michigan 48823

Inspection conducted by

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

Project #21043-1

Project dates: July 26 – August 10, 2005

Final Report date: September 27, 2005

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**Office of Environmental and Occupational Safety**  
**Life Science Building**  
**Project #21043**

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 Life Science 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 July 26 to August 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 Gregg Kolodica, Adam Cobb and John Luna, State of Michigan Accredited Asbestos Building Inspectors. Mr. Cobb and Mr. Luna also maintain accreditation as Asbestos Contractor Supervisors.

Steven Day, Adam Mittino and Sean Hillaker, trained Polarized Light Microscopists, analyzed all bulk asbestos samples in the Fibertec IHS Polarized Light Microscopy (PLM) laboratory.

GENERAL INSPECTION PROCEDURES

In an effort to identify asbestos-containing material (ACM) at the Life Science 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 glazing compound, roofing) at the request of Michigan State University (including any outside sampling). The following rooms in the Life Science Building were not accessible during the inspection: A2, B18B, B24, B25, B26A, A131B, A141, A143C, B101, B102, B106, B121, B122, B124, B125, B133, B135, B137, B141, B143, B144, A250, B201, B204, B206, B221, B222, B224, B225, B233, B235, B237, B239, B302, B304, B305A, B306, B321, B322, B324, B325, B333, B335, B337, B341, B343, B344, fourth floor north/center stairwell, west of elevator, B401, B402, B404, B405, B406, B421, B422, B424, B425, B415, B433, B435, B437, B440, B440A, B440C, B441, B442, B442A, B44, and B444.

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, above drywall ceilings or other inaccessible areas have been estimated. Additionally, some asbestos-containing material 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, 57 distinct suspect asbestos-containing materials were identified in the Life Science Building. Some suspect asbestos-containing materials were sampled a number of times in different locations, 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 B (Bulk Sample Log), C (Bulk Sample Analytical Report), D (Room By Room Asbestos Building Inspection Forms), E (Photograph Log), F (Floor Plan Sketches and Sample Locations) and G (Significantly Damaged ACM).

## SUMMARY OF ASBESTOS-CONTAINING MATERIALS

The following materials were found to contain asbestos in the Life Science Building:

- Spray-on fireproofing insulation
- Steam/condensate supply and return pipe joint and hanger insulation
- Steam/condensate supply and return pipe straight insulation
- Domestic water supply and return pipe joint and hanger insulation
- Drain system pipe joint and hanger insulation
- 9" x 9" gray floor tile with cream and gray streaks and associated mastic
- 9" x 9" green floor tile with cream and black streaks and associated mastic
- 9" x 9" sea-foam green floor tile with swirls and associated mastic
- 9" x 9" cream floor tile with dark brown streaks and associated mastic
- 9" x 9" gray floor tile with white streaks and associated mastic
- 9" x 9" beige floor tile with marble pattern and associated mastic (mastic only)
- 9" x 9" cream floor tile with black streaks and associated mastic (mastic only)
- 9" x 9" black floor tile and associated mastic (mastic only)
- 9" x 9" tan floor tile with cream and rust streaks and associated mastic
- 1' x 2' gray floor tile with cream streaks
- 12" x 12" light blue floor tile with marble pattern and associated mastic (mastic only)
- 12" x 12" gray floor tile with white streaks and associated mastic (mastic only)
- 12" x 12" brown floor tile with marble pattern and associated mastic (black mastic only)
- 12" x 12" tan floor tile with marble pattern and associated mastic
- 12" x 12" tan floor tile with cream and brown streaks and associated mastic (mastic only)
- 12" x 12" tan floor tile with cream and green streaks and associated mastic (mastic only)
- Tan stair tread with cream, black and pink streaks
- Canvas wrap on fiberglass pipe straight insulation
- Black sink undercoating

The following materials were assumed to contain asbestos in the Life Science Building:

- Chalkboards and associated glue pods
- Black laboratory sinks and table top
- Black slate window sills
- Green laboratory tables
- Transite ventilation hoods
- Electrical insulation cloth
- Fire doors and frames
- Window and door frame caulk compound
- Roofing materials and products

The following materials were found not to contain asbestos in the Life Science Building:

Ceiling fire board  
Plaster (smooth)  
Drywall  
Drywall joint compound  
2" x 2" white drop-in ceiling tile with texture  
2" x 2" white drop-in ceiling tile with fissures  
2' x 2' white drop-in ceiling tile with pin holes and fissures  
2' x 2' white lay-in ceiling tile with pin holes and fissures  
2' x 2' white lay-in ceiling tile with texture and pinholes  
12" x 12" white splined ceiling tile with pinholes and fissures  
12" x 12" white ceiling tile with pin holes and fissures and associated glue pods  
4" brown cove molding and associated mastic  
4" tan cove molding and associated mastic  
4" black cove molding and associated mastic  
4" gray cove molding and associated mastic  
4" green cove molding and associated mastic  
3" black cove molding and associated mastic  
4" cream cove molding and associated mastic  
4" white cove molding and associated mastic  
12" x 12" white floor tile with mosaic pattern and associated mastic  
White sink undercoating  
Gray sink undercoating  
Trowelled-on fireproofing  
Tan linoleum with mosaic pattern 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.

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.
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 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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