

ASBESTOS BUILDING INSPECTION REPORT

for

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

at

Akers Hall
Building #326
East Lansing, Michigan 48823

Inspection conducted by

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

Project #20989-1

Project dates: July 14 – July 29, 2005

Final Report date: August 31, 2005

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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 Akers Hall. 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 General Industry Standard for Asbestos.

The asbestos building inspection took place from July 17 to July 29, 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 Akers 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) at the request of Michigan State University (including any outside sampling). The following rooms in Hubbard Hall were not accessible during the inspection: 2C, 29A, 30B, 32, 33B, 44, 45A, 46, 59, 147, 152, 230A, 249C, 310A, 389, 391, 410, 465A, 466, 466B and 715S.

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, 55 distinct suspect asbestos-containing materials were identified in Akers Hall. Some suspect asbestos-containing materials were sampled a number of times in different locations, smooth 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 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 Akers Hall:

- Plaster (smooth)
- Spray-on acoustical plaster
- 12" x 12" light cream floor tile with tan and cream streaks
- Mastic on 9" x 9" dark tan floor tile with cream and rust streaks
- 9" x 9" chocolate brown floor tile with cream and rust streaks and associated mastic
- Mastic on chocolate vinyl stair tread with black, cream and pink streaks
- Domestic water supply and return pipe joint and hanger insulation
- White ventilation duct expansion cloth
- Spray-on fireproofing
- Silver expansion tank insulation
- Mastic on wood grain vinyl flooring
- 9" x 9" white floor tile

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

- Steam/condensate supply and return pipe straight insulation
- Domestic water supply and return pipe straight insulation
- Fire doors and frames
- Window and door frame caulk compound
- Roofing products/materials
- Chalkboards and associated glue pods

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

- Textured plaster
- White stipple plaster
- Drywall
- Drywall joint compound
- 2' x 2' white drop-in ceiling tile with pin holes and fissures
- 2' x 2' white lay-in ceiling tile with pin holes
- 12" x 12" white splined ceiling tile with pin holes and fissures
- 4" brown cove molding and associated mastic
- 4" black cove molding and associated mastic
- 4" gray cove molding and associated mastic
- 12" x 12" tan floor tile with marble pattern and associated mastic
- 12" x 12" tan floor tile with cream and rust streaks and associated mastic
- 12" x 12" cream floor tile with white and gray streaks and associated mastic
- 12" x 12" white floor tile with tan marble pattern and associated mastic
- Mastic on 12" x 12" light cream floor tile with tan and cream streaks (floor tile is asbestos-containing)
- 9" x 9" dark tan floor tile with cream and rust streaks (mastic is asbestos-containing)

Gray flooring with black and white specks and associated mastic
Green linoleum with tan and black specks and associated mastic
Tan linoleum with cream swirls and associated mastic
Light green linoleum with mosaic pattern and associated mastic
Dark green linoleum with black and cream specks and associated mastic
Chocolate vinyl stair tread with cream streaks and associated mastic
Steam/condensate supply and return pipe joint and hanger insulation
Canvas wrap on fiberglass pipe straight insulation
9" x 9" cream floor tile with rust streaks and associated mastic
Black ventilation duct expansion cloth
4" tan cove molding and associated mastic
Light tan linoleum with bubble pattern and associated mastic
Black sink undercoating
2' x 2' white lay-in ceiling tile with smooth texture
12" x 12" brown floor tile with marble pattern and associated mastic
2' x 2' white lay-in ceiling tile with pin holes and fissures
Forest green linoleum with black, cream and light green specks and associated mastic
Wood grain vinyl flooring (mastic is asbestos-containing)
Green vinyl stair tread with circle pattern and associated mastic
White sink undercoating
Mastic on 9" x 9" white floor tile
White vinyl floor with blue snowflake pattern and associated mastic
2' x 2' beige drop-in ceiling tile with waffle pattern

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 General Industry Standard for Asbestos, 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. Fibertec HIS recommends that additional plaster sampling be conducted in the areas where collected plaster samples collected were found to contain asbestos in order to more accurately determine/differentiate areas that have been previously repaired from areas with original plaster surfacing material.
2. 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.
3. 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.

4. 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.
5. 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).
6. 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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