

ASBESTOS BUILDING INSPECTION REPORT

for

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

at the

Hubbard Hall
Building #331
East Lansing, Michigan 48823

Inspection conducted by

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

Project #20915-1

Project date: June 29 – July 20 and August 8, 2005

Final Report date: August 18, 2005

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INTRODUCTION

Fibertec Industrial Hygiene Services, Inc. (Fibertec IHS) was retained by Michigan State University Office of Environmental and Occupational Safety to perform an asbestos building inspection in Hubbard hall. The project was discussed with Ms. Mary Lindsey-Frary of 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 June 29 to July 20, 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, all State of Michigan Accredited Asbestos Building Inspectors. Mr. Cobb and Mr. Luna also maintain accreditation as Asbestos Contract Supervisors.

Mr. Steven Day, Mr. Adam Mittino and Mr. 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 Hubbard 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 compromise the weather tight integrity of the building envelop 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: G11, G27, G45A, G64C, G72, G75A, 208, 335, 601A, and 1420.

Determination of suspect ACM was based on visual examination, bulk sample analysis and material age and professional experience. Specifically, materials similar in color and texture were classified into homogenous areas (e.g., drywall). 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 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, 50 distinct suspect asbestos-containing materials were identified in Hubbard Hall. Some suspect asbestos-containing materials were sampled a number of times in different locations, acoustical 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 (Photography 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 at Hubbard Hall:

- Plaster (smooth) on the 11th floor
- Steam and condensate supply and return pipe joint and hanger insulation
- Domestic water supply and return pipe joint and hanger insulation
- Drain system pipe joint and hanger insulation
- Electrical insulation cloth
- 9" x 9" tan floor tile with swirl pattern
- 12" x 12" tan floor tile with swirl pattern and associated mastic

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

- Chalkboards and associated glue pods
- Fire doors and frames
- Window and door frame caulk compound
- Roofing product/materials

The following materials were found not to contain asbestos at Hubbard Hall:

- Plaster (smooth) on all floors, except the 11th floor
- Textured plaster
- Canvas wrap on fiberglass pipe straight insulation
- Spray-on fireproofing
- Drywall
- Drywall joint compound
- 2' x 2' white drop-in ceiling tile with light texture
- 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 4' white lay-in ceiling tile with pin holes and fissures
- 2' x 4' white lay-in ceiling tile with pin holes and gouges
- 12" x 12" white spline ceiling tile with pin holes and fissures
- 12" x 12" white ceiling tile with fissures and associated glue pods
- 6" brown cove molding and associated mastic
- 6" black cove molding and associated mastic
- 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
- 9" x 9" mustard floor tile with cream and rust streaks and associated mastic
- 9" x 9" tan floor tile with cream and rust streaks and associated mastic
- 12" x 12" cream floor tile with marble pattern and associated mastic

12" x 12" tan floor tile with marble pattern and associated mastic
12" x 12" light gray floor tile with marble pattern and associated mastic
(Room 145 cardboard storage room)
12" x 12" light gray floor tile with swirl pattern and associated mastic (Room 1201)
12" x 12" brown floor tile with ripple effect and associated mastic
12" x 12" tan floor tile with cream and rust streaks and associated mastic
Brown fireboard seam compound
Ventilation duct expansion cloth
Black vapor barrier behind metal ceiling pan
Ceiling fireboard insulation
White sink undercoating
Beige multi-colored flooring material and associated mastic
Purple linoleum flooring and associated mastic
Tan vinyl stair tread with small square pattern and associated mastic
Tan linoleum with small squares and associated mastic
Multi-colored linoleum and associated mastic
White linoleum with blue and cream snowflake pattern and associated mastic
Cream linoleum with blue and tan specks and associated mastic
Mastic beneath 9" x 9" tan floor tile with swirl pattern

CONCLUSION

Undamaged and damaged, friable (can be crumbled, pulverized or reduced to powder by hand pressure when dry), non-friable (cannot be crumbled, pulverized or reduced to powder by hand pressure when dry) 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 IHS recommends that additional plaster sampling be conducted on the upper floors of Hubbard Hall, particularly in the areas where fire had been reported. It appears that plaster used to repair fire and/or water damage is asbestos-containing.
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 asbestos-containing products in or on the building. This notification must be given to any outside contractors (*e.g.*, HVAC 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 proved appropriate documentation.
4. Plan for the proper removal of all asbestos-containing materials which may be impacted by the renovation or demolition of the facility.

5. label an 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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