

ASBESTOS BUILDING INSPECTION REPORT

for

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

at the

Demonstration Hall
Building #57
East Lansing, Michigan 48823

Inspection conducted by:

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

Project #20227-1

Project dates: January 24 - 26, 2005

Final Report date: February 25, 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 Demonstration 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 January 25 through January 26, 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 John Luna and Adam Cobb, State of Michigan Accredited Asbestos Building Inspectors. Mr. Luna and Mr. Cobb also maintain accreditation as Asbestos Contractor Supervisors.

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

GENERAL INSPECTION PROCEDURES

In an effort to identify asbestos-containing material (ACM) at the Demonstration 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 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 the Demonstration Hall building were not accessible during the inspection: 104A, 108, 108A, 120, 120A, 202, and 205A,

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., plaster). 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 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.

RESULTS OF VISUAL INSPECTION

Based on the inspection, 39 distinct suspect asbestos-containing materials were identified in the Demonstration Hall building. 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.

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 H (Significantly Damaged ACM).

SUMMARY OF ASBESTOS-CONTAINING MATERIALS

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

- Steam and condensate pipe straight insulation (and associated debris)
- Steam and condensate pipe joint and hanger insulation
- Hot water holding tank insulation
- Boiler insulation
- Sewer drain pipe straight insulation
- Sewer drain pipe joint and hanger insulation
- Radiator backing paper
- Domestic water pipe straight insulation
- Domestic water pipe joint and hanger insulation
- 1' x 2' black floor tile
- 1' x 2' brown floor tile and associated mastic
- 9" x 9" black floor tile with cream and green streaks
- 9" x 9" black floor tile with cream streaks
- 9" x 9" tan floor tile with cream and rust streaks and associated mastic
- 9" x 9" wood grain pattern floor tile and associated mastic
- 9' x 9' gray floor tile with cream and pink streaks and associated mastic

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

- Fire doors and frames
- Window and door frame caulk compound
- Window glazing compound
- Roofing products
- Black chalkboards and associated glue pods

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

- Tan linoleum with cream and brown streaks and associated mastic and backing
- 2' x 2' tan linoleum squares with marble pattern and associated mastic
- 2' x 2' brown linoleum squares with cream and black specks and associated mastic
- 12" x 12" white ceiling tile with pinholes and associated glue pods
- 2' x 4' white lay-in ceiling tile with large and small pinholes
- Ventilation duct expansion cloth
- Brown glue pods
- 12" x 12" light cream floor tile with marble pattern and associated mastic
- 12" x 12" tan floor tile with cream and rust streaks and associated mastic
- Corkboard and associated mastic
- 6" brown cove molding and associated mastic
- 6" black cove molding and associated mastic
- 4" brown cove molding and associated mastic
- 4" black cove molding and associated mastic
- Drywall
- Drywall joint compound

Plaster
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 (and 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 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.
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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