

ASBESTOS BUILDING INSPECTION REPORT

for

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

at the

John C. Holmes Hall
Building #300
East Lansing, Michigan 48823

Inspection conducted by

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

Project #20120-1

Project dates: December 20 – December 28, 2004

Final Report date: January 19, 2005

Contents

Introduction

Certification

General Inspection Procedures

Results of Visual Inspection

Bulk Sample Results

Summary of Asbestos-Containing Materials

Conclusion

Recommendations

Appendices

A. Asbestos Inspector Credential

B. Bulk Sample Log

C. Bulk Sample Analytical Report

D. Room by Room Asbestos Building Inspection Forms

E. Photograph Log

F. Floor Plan Sketches

G. Significantly Damaged ACM

H. Lyman Briggs Hazardous Materials Building Inspection Report

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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 John C. Holmes 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 Asbestos in Construction Standard.

The asbestos building inspection took place from December 20 to December 28, 2004. During the inspection, bulk samples were collected and quantities of suspect asbestos-containing materials were estimated.

Fibertec IHS was also retained by the Michigan State University Engineering and Architectural Services Department, Physical Plant Division, to conduct a potentially hazardous materials building inspection on these specific areas that would potentially be affected by renovations planned for the Lyman Briggs School. This report for work at Lyman Briggs School appears in Appendix H (Lyman Briggs Potentially Hazardous Building Inspection Report, dated December 16, 2004). The Lyman Briggs School inspection took place from November 19 to November 29, 2004.

CERTIFICATION

The asbestos building inspection was conducted by Adam Cobb and John Luna, State of Michigan Accredited Asbestos Building Inspectors, who were assisted for purposes of recordkeeping by Gregg Kolodica and Ryan Storey. Mr. Cobb and Mr. Luna also maintain accreditation as Asbestos Contractor Supervisors.

John Walker, Steven Day, Sean Hillaker and John Sink, 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 John C. Holmes 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 John C. Holmes Hall were not accessible during the inspection: C110, C115, C120, E10, E13, E23, E23A, E648, E649, E650, W2, W4, W9, W13, W14, W15, W178, W179, W180, W548, W549, W550, W648, and W649.

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, 50 distinct suspect asbestos-containing materials were identified in John C. Holmes Hall. 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), G (Significantly Damaged ACM), and H (Lyman Briggs Potentially Hazardous Materials Building Inspection Report).

SUMMARY OF ASBESTOS-CONTAINING MATERIALS

The following materials were found to contain asbestos in John C. Holmes Hall:

- Steam and condensate pipe straight insulation
- Domestic water pipe joint and hanger insulation
- Ventilation duct expansion cloth
- Sewer drain pipe joint insulation
- Canvas wrap on fiberglass pipe straight insulation
- Condensate tank insulation
- 9" x 9" beige floor tile with swirls
- Green lab tables
- Interior window glazing/caulk
- Electrical insulation cloth
- Brown duct joint compound
- 9" x 9" light brown floor tile with cream and rust specks and associated mastic
- Black sink undercoating
- Laboratory Glove
- Roof flashing
- 9" x 9" cream floor tile with white and black streaks and associated mastic

The following materials were assumed to contain asbestos in John C. Holmes Hall:

- Green chalkboards and associated glue pods
- Fire doors and frames

The following materials were found not to contain asbestos in John C. Holmes Hall:

- 2' x 2' white lay-in ceiling tile with pin holes and fissures
- 12" x 12" white ceiling tile with fissures and associated glue pods
- 4" brown cove molding and associated mastic
- Plaster (smooth)
- Black slate lab sinks and table tops
- 12" x 12" green floor tile with marble pattern and associated mastic
- 12" x 12" cream floor tile with marble pattern and associated mastic
- 4" green cove molding
- 4" tan cove molding

2' x 4' white lay-in ceiling tile with pin holes and fissures
Mastic to 9" x 9" beige floor tile
3" black cove molding and associated mastic
Drywall
Drywall joint compound
12" x 12" light brown floor tile with marble pattern and associated mastic
4" black cove molding and associated mastic
12" x 12" light cream floor tile with gray specks and associated mastic
4" gray cove molding and associated mastic
2' x 2' white drop-in ceiling tile with pin holes and fissures
Fireboard
Fire code gypsum board
Fire code gypsum board joint compound
Blue linoleum with mosaic pattern and associated mastic and leveling compound
Gray lab tables
2' x 4' vibration panels (fiberglass)
6" brown cove molding and associated mastic
Pink linoleum with mosaic pattern and associated mastic and leveling compound
Spray-on acoustical plaster (popcorn)
White linoleum with mosaic pattern and associated mastic
12" x 12" tan floor tile with cream and rust streaks and associated mastic
Tan textured sink undercoating
Tan linoleum with cream streaks and associated mastic
2' x 2' brown linoleum and stair tread with cream swirls 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 (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 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). In the case of John C. Holms Hall, labels have already been placed in mechanical room entrances, and should be placed on the inside of ceiling and pipe chase access hatches as well.
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.

Adam Cobb
Michigan Accredited Asbestos Inspector
Card #A29543

John Luna
Michigan Accredited Asbestos Inspector
Card #A4665

Phillip A. Peterson
Vice President