

ASBESTOS BUILDING INSPECTION REPORT

for

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

at the

Psychology Research Building
(Now Geography)
Building #176
East Lansing, Michigan 48823

Inspection conducted by:

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

Project #20016-1

Project dates: November 16 – November 18, 2004

Final Report date: December 2, 2004

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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 Psychology Research 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 November 16 to November 18, 2004. 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, State of Michigan Accredited Asbestos Building Inspector. Mr. Luna also maintains accreditation as Asbestos Contractor Supervisor.

John Walker and Steven Day, 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 Psychology Research 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 Psychology Research Building were not accessible during the inspection: 1D, 6, 8, 21, 21A, 25, 27, 28, 127, 235, 241, and 301.

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, 29 distinct suspect asbestos-containing materials were identified in the Psychology Research 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, *including two materials previously sampled by accredited asbestos building inspectors at ORCBS. These materials include 9" x 9" tan floor tile with cream and brown specks and associated mastic (which was analyzed and found to contain asbestos and 12" x 12" white splined ceiling tile (which was analyzed and found not to be an asbestos containing material).* Both materials have been quantified and included in the room by room 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 Psychology Research Building:

- Steam and condensate pipe straight insulation
- Steam and condensate pipe joint and hanger insulation
- Domestic water pipe joint and hanger insulation
- Radiation heat pipe joint and hanger insulation
- Radiation heat tank insulation
- Chilled water pipe joint and hanger insulation
- Mastic below 12" x 12" tan marble pattern floor tile
- 12" x 12" tan marble pattern floor tile (the tile were not found to contain asbestos, however, they are contaminated by the underlying mastic)
- 12" x 12" gray floor tile with white streaks and associated mastic
- 9" x 9" tan floor tile with cream and brown specks and associated mastic
- 9" x 9" black floor tile with white specks and associated mastic
- Brown vinyl stair tread with cream and pink streaks
- White sink undercoating
- Black sink undercoating

The following materials were assumed to contain asbestos in the Psychology Research Building:

- Fire doors and frames
- Black slate lab tops
- Gray window and door frame caulk compound
- Lab vent fume hoods
- Brown chalkboards and associated glue pods
- Green chalkboards and associated glue pods
- Roofing products

The following materials were found not to contain asbestos in the Psychology Research Building:

- Domestic water pipe straight insulation
- 12" x 12" white splined ceiling tile with fissures
- 12" x 12" white splined ceiling tile with light texture
- 2' x 4' white lay-in ceiling tile with pin holes and fissures
- 4" black cove molding and associated mastic
- 4" brown cove molding and associated mastic
- Wallboard material
- Plaster
- Pink sink undercoating

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 the Psychology Research Building, 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.

John Luna
Michigan Accredited Asbestos Inspector
Card #A4665

Phillip A. Peterson
Vice President