

ASBESTOS BUILDING INSPECTION REPORT

for

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

At

Baker Hall
(Building #182)
East Lansing, Michigan 48824

Inspection conducted by:

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

Project #18623-1

Project dates: January 7 – 12, 2004

Final Report date: February 16, 2004

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INTRODUCTION

Fibertec Industrial Hygiene Services, Inc. (Fibertec IHS) was retained by Michigan State University, Office of Environmental Safety, to perform an asbestos building inspection in Baker Hall. The project was discussed with Mr. Thomas Grover of the Michigan State University Office of Radiation, Chemical and Biological Safety Services (ORCBS), prior to beginning the fieldwork. Mr. Grover requested a comprehensive asbestos building inspection, including the collection of an appropriate number of bulk asbestos samples in accordance with the inspection provisions of the Asbestos Hazard Emergency Response Act (AHERA, 40 CFR, Part 763). Employers and building and facility owners shall exercise due diligence in complying with these requirements to inform employers and employees about the presence and location of ACM and PACM.

The asbestos building inspection took place on January 7 – 12, 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, a State of Michigan accredited asbestos building inspector. Mr. Luna also maintains accreditation as an Asbestos Contractor Supervisor.

John Walker, a trained polarized light microscopist, 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 Baker Hall, an extensive inspection procedure was followed. A visual inspection of the basement, 1st, 2nd, 3rd, 4th, 5th floors and the penthouse was combined with the collection of an appropriate number and distribution of bulk samples.

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. As such, 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, floor leveling compound below floor tile, and/or duct caulk on duct in mechanical shafts) may be present and may not have been accounted for as part of this inspection.

RESULTS OF VISUAL INSPECTION

Based on the inspection, 32 distinct suspect asbestos-containing materials were identified in Baker Hall. Some suspect asbestos-containing materials were sampled a number of times in different locations, pipe insulation 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), and G (Floor Plan sketches).

SUMMARY OF ASBESTOS CONDITIONS

The following materials were found to contain asbestos in Baker Hall:

- Roof drain pipe joint insulation
- Condensate pipe joint insulation
- Domestic water pipe joint insulation
- Gray low pressure steam pipe joint insulation
- Transite panel on roof cooling unit
- 9" x 9", gray floor tile with white streaks and associated mastic
- Mastic on 12" x 12", pink floor tile with multi-colored specks
- White sink undercoating
- Window and door frame caulk (gray)
- High pressure steam pipe straight insulation
- High pressure steam pipe joint insulation
- Treated water pipe joint insulation
- Electrical wire cloth wrap

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

- Chilled water pipe joint insulation
- 12" x 12", white ceiling tile with fissures and associated glue pods
- Plaster walls and ceilings
- Black cove molding and associated mastic
- 2' x 2', white lay-in ceiling tile with pin holes and fissures
- Brown cove molding and associated mastic
- 2' x 2', white drop-in ceiling tile with pin holes and fissures
- Green expansion gasket material
- Black expansion joint material on fan unit #2 (Penthouse)
- Fireproof ceiling board
- 12" x 12" pink floor tile with colored specks
- 2' x 2', white lay-in ceiling tile with deep fissures
- Drywall
- Drywall joint compound
- Black vinyl stair-tread with white streaks and associated mastic
- Vinyl wall covering
- Ceiling insulation board (tectum)
- Light brown glue pods above 12" x 12" ceiling tile

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

- Chalkboard glue pods
- Fire doors and frames

CONCLUSION

Undamaged, non-friable (material which can not be crumbled, pulverized or reduced to powder by hand pressure when dry) known or assumed asbestos-containing 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 appropriate regulations (29 CFR 1910.1001, the inspection provisions of AHERA, 40 CFR, Part 763 and the EPA Sampling Bulletin of September 30, 1994)) and current industry standards.

ASBESTOS-RELATED 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.

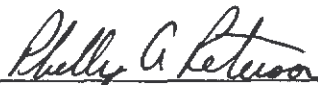
- 1 Notify the building occupants, custodians, Physical Plant personnel and others who may encounter ACM during the routine execution of their assigned work of the presence of known or assumed asbestos-containing products in or on the building. This notification must be given to any outside contractors (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 buildings 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)...when a building owner/or employer identifies previously installed PACM and /or ACM, labels or signs shall be affixed or posted so that employees are notified of what materials contain PACM and/or ACM. The employer shall attach such labels in areas where they will clearly be noticed by employees who are likely to be exposed, such as at the entrance to mechanical rooms/areas. Signs required by paragraph (k)(5) of this section may be posted in lieu of labels so long as they contain information required for labeling. In the case of Baker Hall, labels have already been placed in all mechanical room entrances, including the penthouse area.



John Luna

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