#1 LB

ASBESTOS AND LIMITED LEAD BUILDING INSPECTION REPORT

for the

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

at the

Oyer Audiology Speech and Hearing Sciences
Building #89
East Lansing, Michigan 48823

Inspection conducted by:

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

Project #20369-1

Project dates: March 7 – 8, 2005

Final Report date: March 18, 2005

ASBESTOS AND LIMITED LEAD BUILDING INSPECTION REPORT

for
Michigan State University
Office of Environmental and Occupational Safety
Oyer Audiology Speech and Hearing Sciences Building
Project #20369-1

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 Oyer Audiology Speech and Hearing Sciences 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 and limited lead paint building inspection, including the collection of an appropriate number of bulk asbestos samples in accordance with the provisions of the Asbestos in Construction Standard and a limited number of paint samples in accordance with the provisions of American Society for Testing and Materials (ASTM) Standard E1729-99.

The asbestos and limited lead building inspection took place from March 7 through March 8, 2005. During the inspection, bulk asbestos samples were collected and quantities of suspect asbestos-containing materials were estimated. A limited number of paint samples were also collected.

CERTIFICATION

The asbestos and limited lead building inspection was conducted by Adam Cobb and Gregg Kolodica, State of Michigan Accredited Asbestos Building Inspectors. Mr. Cobb 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).

Jeri Haney, a trained Laboratory Chemist, analyzed all lead paint samples. All samples were analyzed in the Fibertec, Inc. Analytical Laboratory, which maintains current National Environmental Laboratory Accreditation Program (NELAP) accreditation (Lab Code 100312).

GENERAL INSPECTION PROCEDURES

In an effort to identify asbestos-containing material (ACM) and lead-containing paint at the Oyer Audiology Speech and Hearing Sciences 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 Oyer Audiology Speech and Hearing Sciences Building were not accessible during the inspection: 14, 19, 20A, 20C, 106 and 208.

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.

Determination of lead paint was based on visual examination and bulk sample analysis. Specifically, a sample of each observed major paint color was collected pursuant to the requirements of ASTM Standard E1729-99 Standard Practice for Field Collection of Dried Paint Samples. All samples were submitted to the Fibertec IHS Analytical Laboratory for analysis. When results indicate lead levels above 0.5 weight percent, the paint is considered lead-based. When the results indicate lead present below 0.5 weight percent and above the detected limit, the paint is considered lead-containing. When the results indicate lead present at or below the method detection limit, the paint is considered non lead-containing.

RESULTS OF VISUAL INSPECTION

Based on the inspection, 24 distinct suspect asbestos-containing materials were identified in the Oyer Audiology Speech and Hearing Sciences 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.

Based on the inspection, two major paint colors were identified in the mechanical rooms at Oyer Audiology Speech and Hearing Sciences Building. Each major paint color of suspect lead paint was sampled either once or a number of times from representative substrates for those colors. All suspect lead paints observed at the time of the inspection are listed in the Paint Sample Log.

BULK SAMPLE RESULTS

The information gathered from the inspection is included in Appendices C (Bulk Asbestos and Paint Sample Logs), D (Bulk Asbestos and Paint Sample Analytical Reports), 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 AND PAINT

The following materials were found to contain asbestos in the Oyer Audiology Speech and Hearing Sciences Building:

Steam/condensate supply and return pipe joint insulation
Domestic water supply and return pipe joint insulation
9" x 9" cream floor tile with brown streaks
HVAC duct joint compound
2' x 4' cream transite paneling with small holes
9" x 9" tan floor tile with rust streaks
Brown stair tread linoleum with black swirls
9" x 9" gray floor tile with swirls

The following materials were assumed to contain asbestos in the Oyer Audiology Speech and Hearing Sciences Building:

Fire door and frame
Black window sills
Exterior window frame caulk
Roofing materials
Chalkboards and associated glue pods

The following materials were found not to contain asbestos in the Oyer Audiology Speech and Hearing Sciences Building:

Troweled-in fireproofing
HVAC duct expansion cloth
Mastic associated with 9" x 9" cream floor tile with brown streaks
4" brown cove molding and associated mastic
Plaster
12" x 12" white ceiling tile with fissures and associated glue pods
2' x 2' white lay-in ceiling tile with pin holes and fissures
Drywall
12" x 12" light brown floor tile with marble pattern and associated mastic
12" x 12" light cream floor tile with dark gray streaks and associated mastic
Mastic associated with 9" x 9" tan floor tile with rust streaks
Gray sink undercoating
4" tan cove molding and associated mastic
Mastic associated with brown stair tread linoleum with black swirls

The following paint was found to be lead-containing in the Oyer Audiology Speech and Hearing Sciences Building:

Gray paint

The following paint was found to be lead-based in the Oyer Audiology Speech and Hearing Sciences Building:

Light green paint

No paints were found to be non lead-containing in the Oyer Audiology Speech and Hearing Sciences Building.

CONCLUSION

Undamaged, non-friable (cannot be crumbled, pulverized or reduced to powder by hand pressure when dry) known or assumed asbestos-containing materials, as well as undamaged, friable known asbestos-containing materials, were discovered during the course of this inspection.

One paint (light green) was discovered to be lead-based pursuant to the Housing and Urban Development (HUD, 0.5%) and one paint (gray paint) was found to be lead-containing.

This facility inspection to determine the location of asbestos-containing materials and limited lead paint 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, as well as the ASTM Standard E1729-99 Standard Practice for Field Collection of Dried Paint Samples.

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 or lead paints during the routine execution of their assigned work of the presence of known or assumed asbestos-containing products or lead paints 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) or lead paints. 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 and lead standards.

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.

Adam Cobb
Michigan Accredited Asbestos Inspector
Accreditation#29543

Gregg Kolodica
Michigan Accredited Asbestos Inspector
Accreditation #33745

Phillip A. Peterson
Vice President