

ASBESTOS BUILDING INSPECTION REPORT

for

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

at the

Clarence L. Munn Ice Arena
Building #59
1 Chestnut Road
East Lansing, Michigan 48824

Inspection conducted by

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

Project #22099-1

Project dates: May 1-5, 2006

Final Report date: June 6, 2006

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INTRODUCTION

Fibertec Industrial Hygiene Services, Inc. (Fibertec IHS) was retained by the Michigan State University, Office of Environmental and Occupational Safety to perform an asbestos building inspection in the Clarence L. Munn Ice Arena. 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 on May 1-5, 2006. During the inspection, bulk asbestos samples were collected and quantities of suspect asbestos-containing materials were estimated.

CERTIFICATION

The asbestos building inspection was conducted by Darrell DeMasters, a State of Michigan Accredited Asbestos Building Inspector. Mr. DeMasters also maintains accreditation as an Asbestos Contractor Supervisor. A copy of Mr. DeMasters asbestos credential appears in Appendix A.

Adam Mittino, a trained Polarized Light Microscopist, analyzed all bulk asbestos samples in the Fibertec IHS Polarized Light Microscopy (PLM) laboratory. The Fibertec IHS PLM laboratory maintains current National Voluntary Laboratory Accreditation Program (NVLAP) accreditation (Lab Code 101510-0). A copy of the Fibertec IHS NVLAP certificate of accreditation can be found in Appendix B.

GENERAL INSPECTION PROCEDURES

In an effort to identify asbestos-containing material (ACM) at the Clarence L. Munn Ice Arena, 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 asbestos samples. Material sampling that would potentially compromise the weather tight integrity of the building envelope was not conducted (*e.g.*, building caulk compound, roofing) at the request of Michigan State University (including any outside sampling). The following rooms in the Clarence L. Munn Ice Arena were not accessible during the inspection: Rooms 3, 21A, 24B, 29, 35, 36, 37, 110B, 110C, 112, 140, 142, 202, 205, 215, 222, 250, 293 and 295.

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 or other inaccessible areas have been estimated. Additionally, some asbestos-containing material hidden from view (*e.g.*, pipe insulation in inaccessible pipe chases and 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, 23 distinct suspect asbestos-containing materials were identified in the Clarence L. Munn Ice Arena. Some suspect asbestos-containing materials were sampled a number of times in different locations, drywall joint compound 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 Asbestos Sample Locations) and H (Significantly Damaged ACM).

SUMMARY OF ASBESTOS-CONTAINING MATERIALS

The following materials were found to contain asbestos in the Clarence L. Munn Ice Arena:

- Drywall joint compound
- 12" x 12" white floor tile with gray streaks

The following materials were assumed to contain asbestos in the Clarence L. Munn Ice Arena:

- 8" conduit ductile pipe
- Black interior window caulk
- Gray roof caulk
- Black roofing and tar
- Black exterior window and door caulk

The following materials were found not to contain asbestos in the Clarence L. Munn Ice Arena:

- 2' x 2' white drop-in ceiling tile with popcorn texture
- 2' x 2' white ceiling tile with pin holes and fissures
- Drywall
- Gray HVAC caulk
- 4" black cove molding and associated mastic
- 4" gray cove molding and associated mastic
- Green stair tread
- Black sink undercoating
- White sink undercoating
- Steam condensate supply and return pipe joint and hanger insulation
- Domestic water supply pipe joint and hanger insulation
- Chilled water supply and return pipe joint and hanger insulation
- Smooth wall and ceiling plaster
- 12" x 12" green floor tile with specks and associated mastic
- 12" x 12" peach floor tile with specks and associated mastic
- 12" x 12" gray floor tile with specks and associated mastic
- Mastic beneath 12" x 12" white floor tile with gray streaks

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.

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 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 of said training.
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. Inspect any rooms that were inaccessible during this inspection prior to any renovation or demolition.
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).

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