

**ASBESTOS INSPECTION
HOLDEN HALL**

PREPARED FOR:

**MICHIGAN STATE UNIVERSITY
OFFICE OF ENVIRONMENTAL AND OCCUPATIONAL SAFETY
C124 RESEARCH COMPLEX - ENGINEERING
EAST LANSING, MI 48824-1326**

EKS JOB NUMBER 3915

**PREPARED BY
EKS SERVICES INCORPORATED
1927 ROSA PARKS BLVD., SUITE 110
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Asbestos Survey Report

Mary Lindsey-Frary
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C124 Research Complex – Engineering
Michigan State University
East Lansing, MI 48824-1326

Date Reported: 06/17/05
EKS Job No.: 3915--Holden

Location: Holden Hall – Michigan State University
East Lansing, MI

1.0 EXECUTIVE SUMMARY

Mary Lindsey-Frary of Michigan State University's Office of Environmental and Occupational Safety retained EKS Services Incorporated to perform an asbestos survey of Holden Hall (Building #332) on the campus of Michigan State University located in East Lansing, MI. The survey was conducted from May 29-June 10, 2005.

1.1 LIMITATIONS

There was no destructive sampling performed per Michigan State University. Exterior materials, i.e. roofing materials, were not looked at during the survey only interior materials.

1.2 MATERIAL QUANTITIES

The following tables give a total quantity of the materials identified within the surveyed area. The quantity is an estimate only. Table 1 consists of the asbestos-containing materials, Table 2 contains the non-asbestos-containing materials and Table 3 contains the assumed asbestos containing materials.

Table 1
Asbestos Containing Materials List

Asbestos Material Identification	Total Quantity
0" – 2" Pipe Fitting	1405 ln. ft.
10" – 12" Pipe Fitting	111 ln. ft.
12" x 12" Brown Floor Tile with Mastic (Tile only)	2250 sq. ft.
2" – 4" Pipe Fitting	1123 ln. ft.
24" Pipe Fitting	17 ln. ft.
24" Pipe Insulation	62 ln. ft.
4" – 6" Pipe Fitting	435 ln. ft.
6" – 8" Pipe Fitting	315 ln. ft.

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**Table 1 (cont'd)
Asbestos Containing Materials List**

Asbestos Material Identification	Total Quantity
8" – 10" Pipe Fitting	34 ln. ft.
9" x 9" Dark Brown Floor Tile with Mastic (Tile only)	7735 sq. ft.
9" x 9" Light Brown Floor Tile with Mastic (Tile only)	172,460 sq. ft.
Black Isolation Joint	360 ln. ft.
Grey Tank Insulation	84 sq. ft.
Spray-on	6335 sq. ft.
Valve Insulation	80 sq. ft.
Window Caulk	12,805 ln. ft.

**Table 2
Non-Asbestos Containing Materials List**

Material Identification	Total Quantity
0" – 2" Pipe Insulation	5738 ln. ft.
10" – 12" Pipe Insulation	1065 ln. ft.
12" x 12" Ceiling Tile	66,870 sq. ft.
12" x 12" Cream Floor Tile with Mastic	45,600 sq. ft.
12" x 12" Cream with Brown Specks Floor Tile with Mastic	6050 sq. ft.
12" x 12" Green Floor Tile with Mastic	1100 sq. ft.
12" x 12" Light Green Floor Tile with Mastic	1000 sq. ft.
12" x 12" Metal Ceiling Tile with Paper Backing	1210 sq. ft.
12" x 12" Tan Floor Tile with Mastic	505 sq. ft.
2' x 2' Ceiling Tile	72,812 sq. ft.
2' x 4' Ceiling Tile	473 sq. ft.
2" – 4" Pipe Insulation	6415 ln. ft.
4" – 6" Pipe Insulation	4250 ln. ft.
4" Black Baseboard	1150 ln. ft.
4" Brown Baseboard	40,490 ln. ft.
4" Green Baseboard	675 ln. ft.
4" Grey Baseboard	382 ln. ft.
4" Tan Baseboard	300 ln. ft.
6" – 8" Pipe Insulation	1767 ln. ft.
8" – 10" Pipe Insulation	160 ln. ft.
Black Fire Stop	9 each
Door Frame Caulk	460 ln. ft.
Drywall	4600 sq. ft.
Grey Insulation Joint	10 ln. ft.
Grey Insulation on Air Handling Unit	200 sq. ft.
Plaster Ceiling	179,072 sq. ft.
Plaster Wall	509,905 sq. ft.
Red Fire Stop	15 each
Shower Caulk	9180 ln. ft.
Silver Insulation on HVAC	400 sq. ft.

**Table 2 (cont'd)
Non-Asbestos Containing Materials List**

Material Identification	Total Quantity
White Sink Caulk	186 ln. ft.
White Sink Undercoating	50 sq. ft.
Window Frame Caulk	1015 ln. ft.
Yellow Carpet Glue	59,950 sq. ft.

**Table 3
Assumed Asbestos Containing Material**

Material Identification	Total Quantity
12" x 12" Purple Floor Tile with Mastic**	200 sq. ft.
Fire Doors	164 doors
Pipe Insulation Debris above Ceiling Tile	2 sq. ft.

**This floor tile was not sampled because it was located in the middle of the room and not in a corner that would be inconspicuous.

2.0 ASBESTOS BULK SAMPLE ANALYSIS

An accredited laboratory that participates in a Quality Assurance Program for asbestos fiber identification analyzed the bulk samples. Analysis of the bulk samples were performed in accordance with the EPA and OSHA protocol for asbestos using polarized light microscopy (PLM) and dispersion staining by an NVLAP accredited laboratory. Carolina Environmental, Inc. analyzed the samples and the results can be found in Appendix A. During analysis the laboratory stopped at first positive per homogeneous material.

2.1 SAMPLING PROCEDURES

Field inspection alone is not conclusive to identify asbestos-containing materials. Therefore, bulk samples of suspected asbestos-containing materials were obtained using EPA/OSHA protocols by State accredited inspectors and analyzed to determine if asbestos fibers were present, and if found, the type(s) and percentage(s) of asbestos were reported.

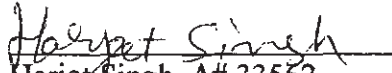
Wetting – An area approximately the size of a half dollar was thoroughly wetted using a plastic squeeze bottle containing water and a wetting agent, to reduce fiber release during sampling.

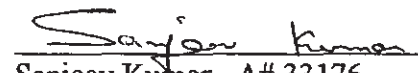
Sampling – A carpenter's knife or boring tool was used to cut the outer protective covering if needed to expose the suspected asbestos-containing material underneath. The boring tool or knife was then used to remove approximately 25 cubic centimeters of the insulation or debris. The insulation or debris was then placed in a resoluble plastic bag

and secured. EKS followed EPA and OSHA protocols for determining sampling locations and total numbers of samples taken.

3.0 CLOSING

Attached are the laboratory results of the samples collected. Please feel free contact me at (313) 963-1433, if you have any questions. It has been a pleasure assisting you.


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