

Asbestos Inspection

Plant Biology Building 178 Michigan State University



Prepared For:
Michigan State University

January 2008
Project No. G07876PB



Fishbeck, Thompson, Carr & Huber
engineers • scientists • architects • constructors

ASBESTOS INSPECTION
PLANT BIOLOGY BUILDING 178
MICHIGAN STATE UNIVERSITY

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LIST OF ABBREVIATIONS/ACRONYMS

ACM	asbestos-containing material
CFR	Code of Federal Regulations
FTC&H	Fishbeck, Thompson, Carr & Huber, Inc.
HA	homogeneous area
l.f.	linear feet
MM	miscellaneous material
s.f.	square feet
SM	surfacing material
TSI	Thermal System Insulation
MSU	Michigan State University

INTRODUCTION

FTC&H was retained by MSU to conduct an inspection of Plant Biology Building 178 for ACMs. Based on the information that was provided to FTC&H, the facility was constructed in 1966 with one addition (South Wing) in 1985. The building has three floors, which comprise a total of 172,000 s.f.

The inspection was conducted according to the protocol described in 40 CFR 763 Subpart E with the following exceptions:

- Damage assessments were limited to significantly damaged accessible materials. No significantly damaged materials were observed.
- Sample locations for surfacing materials (e.g., plaster, drywall joint compound, etc.) were limited to discrete accessible locations where damage could be minimized.

The inspection did not include building materials on the exterior of the building, destructive sampling, inaccessible equipment, fiberglass, steel, concrete/mortar/block, ceramic tile, or inaccessible areas/materials.

The following materials were assumed to contain asbestos:

- Fire doors
- Laboratory counter tops
- High voltage electrical wire wrap
- TSI in metal jacketing
- Transite wall panels
- Plaster – 1985 Addition

The following rooms were inaccessible at the time of the inspection:

- Room 1
- Room 3
- Room 33
- Room 35
- Room 38
- Room 65
- Room S-12A
- Room S-6

- Room 136A
- Custodial Closet – First floor east wing
- Room S-112B
- Room 261
- Room 254
- Room 308

The inspection was conducted from November 5 through November 8, 2007, and on November 12, 2007, in accordance with the FTC&H proposal dated August 10, 2007.

CERTIFICATION

The building inspection was lead by a State of Michigan accredited Asbestos Building Inspector, Mr. Mark A. Lutkenhoff (Accreditation No. A12430). All samples were sent to an independent laboratory for analyses. Laboratories used for the analyses are identified in Appendix 2, as shown on the analytical reports.

INSPECTION PROCEDURES AND SAMPLING METHODOLOGY

The inspection was conducted in a room-by-room fashion. According to the standard, all materials were considered suspect ACMs for sampling purposes. For the purposes of this report, the terms homogeneous area and homogeneous material are used interchangeably. Homogeneous material numbers were arbitrarily selected depending on when they were first identified. The number of samples collected from each homogeneous material was determined depending on the type of material, and at least one sample was collected from miscellaneous materials. Sample locations were randomly selected by the inspector at the time of the inspection. Sample locations are shown on Figures 1 through 12.

RESULTS

A total of 53 unique homogeneous materials were identified during the inspection of Plant Biology Building 178, resulting in 68 samples collected and 111 sample analyses (including layers). As a result, 5 homogeneous materials were assumed to contain asbestos and 5 homogeneous materials were tested and found to be asbestos containing (having a concentration greater than 1% by weight).

The results of the building inspection are provided in Tables 1 through 3, and Appendix 3. Table 1 identifies the homogeneous materials and their corresponding identification number. Photographs of each homogeneous material are included in Appendix 1. Table 2 identifies each distinct sample number and the sample locations. Summaries of the asbestos-containing and non asbestos-containing homogeneous

materials identified in each room (functional space) and approximate quantities are presented in Appendix 3. Functional spaces which were identical in size and homogeneous materials were grouped together with the total quantity of each homogeneous material reported. Table 3 summarizes the assumed or confirmed ACMs with an approximate quantity.

HOMOGENEOUS AREAS 14, 15, AND 17

Homogeneous areas 14, 15, and 17 were observed in room 20 of the building. These materials were removed prior to the completion of the inspection as part of a renovation project. Therefore, no pictures were taken, and no verification sampling of these materials was conducted.

CONCLUSIONS

From November 5 through November 8, 2007, and on November 12, 2007, FTC&H conducted an inspection of Plant Biology Building 178 on the campus of MSU. A total of 53 unique homogeneous materials were identified during the inspection, resulting in 68 samples collected and 111 sample analyses (including layers). Five homogeneous materials were assumed to be asbestos and 5 were tested and found to be asbestos containing (having a concentration greater than 1% by weight).

Table 1 - Description of Homogenous Materials

Michigan State University - Plant Biology Building 178

Inspection Dates: November 5 through November 8, 2007

HA Number	Material Description	Material Type	Unit	Asbestos?
1	Drywall & drywall joint compound	MM	s.f.	No
2	Fittings on fiberglass insulated piping	TSI	l.f.	Yes
3	12" VAT- White with grey and black streaks	MM	s.f.	No
4	Black covebase	MM	s.f.	No
5	Laboratory counter tops	MM	s.f.	Assumed
6	Fire Doors	MM	ea.	Assumed
7	Expansion gaskets	MM	s.f.	No
8	2' x 4' suspended ceiling tile- white with various size fissures and pinholes	MM	s.f.	No
9	9" VAT- Light brown with white and dark brown streaks	MM	s.f.	Yes
10	2' x 4' suspended ceiling tile- white with long fissures and random pinholes	MM	s.f.	No
11	Brown covebase	MM	s.f.	No
12	2' x 2' suspended ceiling tile- white with random fissures and pinholes	MM	s.f.	No
13	Yellow carpet mastic	MM	s.f.	No
14	12" VAT- beige with brown streaks	MM	s.f.	No
15	12" VAT- tope with off white and brown streaks	MM	s.f.	Yes
16	2' x 2' suspended ceiling tile- white with long fissures	MM	s.f.	No
17	Sheet vinyl- tope with grey and white streaks	MM	s.f.	Yes
18	Plaster	SM	s.f.	No
19	12" VAT- Light blue with dark blue and white streaks	MM	s.f.	No
20	12" VAT- Brown with black and white streaks	MM	s.f.	No
21	High voltage wire wrap	MM	s.f.	Assumed
22	2' x 4' suspended ceiling tile- white with random pinholes	MM	s.f.	No
23	Sheet vinyl- yellow with irregular white shapes	MM	s.f.	Yes
24	12" VAT- White with light blue streaks	MM	s.f.	No
25	2' x 2' suspended ceiling tile- white with fissures and pinholes	MM	s.f.	No
26	Mag pipe insulation	TSI	l.f.	Yes
27	Red covebase	MM	s.f.	No
28	2' x 2' suspended ceiling tile- white with random pinholes (1985 Addition)	MM	s.f.	No
29	Light brown covebase (1985 Addition)	MM	s.f.	No
30	12" VAT- brown with white and brown streaks (1985 Addition)	MM	s.f.	No
31	12" VAT- cream with white streaks	MM	s.f.	No
32	Dark brown covebase (1985 Addition)	MM	s.f.	No
33	Black covebase (1985 Addition)	MM	s.f.	No
34	Drywall & drywall joint compound (1985 Addition)	MM	s.f.	No
35	12" VAT- Peach with brown and white streaks (1985 Addition)	MM	s.f.	No
36	Plaster (1985 Addition)	SM	s.f.	Assumed
37	2' x 2' suspended ceiling tile- white with fissures and pinholes (1985 Addition)	MM	s.f.	No
38	2' x 2' suspended ceiling tile- white with small random fissures and pinholes	MM	s.f.	No
39	Blue covebase	MM	s.f.	No
40	Grey covebase	MM	s.f.	No
41	2'x4' suspended ceiling tile- white with fissures and pinholes	MM	s.f.	No
42	12" VAT- Light brown with dark brown and white streaks	MM	s.f.	No
43	Transite wall panels	MM	s.f.	Assumed
44	12" VAT- beige with dark and light brown streaks	MM	s.f.	No
45	12" VAT- beige with multi-colored streaks (1985 Addition)	MM	s.f.	No
46	Void	N/A		N/A
47	Red with brown covebase (1985 Addition)	MM	s.f.	No
48	12" VAT- Grey with white and dark grey streaks	MM	s.f.	No
49	2' x 4' suspended ceiling tile- white with random pinholes x 2	MM	s.f.	No
50	12" VAT- beige with dark brown and white	MM	s.f.	No
51	12" VAT- Pink with black and grey (1985 Addition)	MM	s.f.	No
52	12" VAT- chocolate brown with white streaks	MM	s.f.	No
53	Sheet vinyl- green with multi-colors	MM	s.f.	No

Notes:

MM Miscellaneous Material
SM Surfacing Material
TSI Thermal System Insulation
s.f. Square Feet
l.f. Linear Feet
ea. Each
HA homogenous area
VAT vinyl asbestos tile