

**MICHIGAN STATE UNIVERSITY  
EAST LANSING, MICHIGAN**

**COWLES HOUSE  
ASBESTOS INSPECTION**

**JANUARY 12, 2007  
PROJECT NO. G06723**

## TABLE OF CONTENTS

INTRODUCTION.....	1
CERTIFICATION.....	1
INSPECTION PROCEDURES AND SAMPLING METHODOLOGY.....	1
RESULTS.....	2
CONCLUSIONS.....	3

## LIST OF TABLES

Table 1	Homogeneous Materials
---------	-----------------------

## LIST OF APPENDICES

Appendix 1	Room by Room Asbestos Building Inspection Forms
Appendix 2	Bulk Sample Log
Appendix 3	Drawings
Appendix 4	Analytical Data Report

## LIST OF ACRONYMS

ACM	Asbestos-Containing Material
EMSL	EMSL Analytical, Incorporated, Ann Arbor, Michigan
FTC&H	Fishbeck, Thompson, Carr & Huber, Inc.
MSU	Michigan State University
OEOS	Office of Environmental and Occupational Safety
TSI	Thermal Systems Insulation

## INTRODUCTION

FTC&H was retained by MSU OEOS, East Lansing, Michigan, to conduct an asbestos building inspection of Cowles House, Building 9. This building is located at 1 Abbott Road, East Lansing, Michigan. FTC&H discussed the project with Mr. Andrew D. Smith, MSU-OEOS, prior to beginning the field work. The inspection was conducted in accordance with the September 13, 2006, FTC&H proposal to MSU.

## CERTIFICATION

The asbestos building inspection was conducted by Mr. Mark Nelson, State-of-Michigan Accredited Asbestos Inspector No. A33420. The bulk asbestos samples were analyzed by Polarized Light Microscopy by EMSL, which participates in the National Voluntary Laboratory Accreditation Program (Accreditation No. 101048-4).

## INSPECTION PROCEDURES AND SAMPLING METHODOLOGY

The survey was a functional space (room by room) survey, and was used to design the sampling plan. Materials of similar age and uniform color and texture were classified into homogeneous areas. Room by Room Asbestos Building Inspection Forms are provided in Appendix 1.

A minimum of one bulk asbestos sample was collected from miscellaneous materials; and three to seven samples were collected from surfacing materials and TSI, depending on quantity of the material. Sampling of plaster was limited to three samples due to concerns of damage during sampling, which was noted to Mr. Andrew D. Smith, MSU-OEOS at the time of inspection. As required by MSU, the survey was limited to the building interior and outdoor mechanical systems. Samples were not collected from roofing or exterior materials. In addition, samples were not collected from operating machinery or fire doors.

All samples were collected by a State-of-Michigan Accredited Building Inspector. The samples were collected from areas considered representative of each homogeneous area. Destructive sampling was not conducted, and the samples were collected from accessible materials. Where appropriate, non-permanent labels were used to mark the sampling sites. Where necessary, sampling locations were repaired.

Eighteen distinct homogeneous materials suspected of containing asbestos were identified during the inspection. The homogeneous materials are described on Table 1. A total of 36 bulk material samples were collected from the homogeneous materials, and 47 total analyses were performed for asbestos.

Bulk material samples were collected from suspect ACMs according to the protocol described in 29 CFR 1926.1101 (Occupational Safety and Health Administration Asbestos Construction Standard). Sample locations are described on the Bulk Sample Log (Appendix 2) and located on the drawings included as Appendix 3.

## RESULTS

The samples were transported to EMSL for analysis. The analytical data report provided by EMSL is included as Appendix 4.

Of the 18 homogeneous materials sampled, a total of 11 homogeneous materials were identified to contain asbestos above 1 percent by weight. The asbestos-containing homogeneous materials include:

- 1" pipe insulation (HA 1)
- 2" pipe insulation (HA 2)
- 6" pipe insulation (HA 3)
- 6" mudded fittings (HA 4)
- 2" mudded fittings (HA 5)
- 1" mudded fittings (HA 6)
- 4" pipe insulation (HA 7)
- 4" mudded fittings (HA 8)
- 9"x 9" green floor tile (HA 9)
- 12" x 12" white with gold floor tile (HA 10)
- Green tile under 12" x 12" white with gold floor tile (HA 11)

Homogeneous materials assumed to be ACM include:

- Fire doors

Homogeneous materials that are non-ACM include:

- White cove base (HA 12)
- 12" x 12" white tile (HA 13)
- Smooth ceiling tile (HA 14)
- Black seamless floor cover (HA 15)
- Plaster (HA 16)
- Vinyl stair cover (HA 17)
- Green sub-floor (HA 18)

Estimated quantities of each homogeneous area by functional space are provided on the Room by Room Asbestos Building Inspection Forms (Appendix 1). Estimates of total quantity in the building for each homogeneous area are provided on Table 1.

The quantities provided within this report are only estimates. Additional materials may exist within wall cavities, above fixed ceilings, or other inaccessible areas that could not be evaluated as part of this survey. Non-destructive testing was conducted to collect bulk samples. The samples collected were small in size and from inconspicuous areas.

## CONCLUSIONS

On October 27, 2006, a State-of-Michigan Accredited Asbestos Building Inspector conducted an inspection for asbestos the Cowles House, Building 9. The ACMs found as a result of this inspection were TSI, 9" x 9" green floor tile, and 12" x 12" white with gold floor tile along with green tile underneath.



---

Mark R. Nelson  
Building Inspector No. A33420



---

David W. Lutkenhoff, CIH, CIAQP

**Table 1 - Description of Homogeneous Materials**

Asbestos Inspection - Cowles House  
Michigan State University, East Lansing, Michigan

Material Description	Condition	Homogeneous Area No.	Asbestos Containing ?	Quantity	Unit
1" pipe insulation	u	1	Y	48	l.f.
2" pipe insulation	u	2	Y	146	l.f.
6" pipe insulation	sd	3	Y	40	l.f.
6" mud fittings	u	4	Y	11	l.f.
2" mud fittings	u	5	Y	41	l.f.
1" mud fittings	u	6	Y	34	l.f.
4" pipe insulation	u	7	Y	35	l.f.
4" mud fittings	u	8	Y	4	l.f.
9"x9" floor tile - green	u	9	Y	406	s.f.
12"x12" floor tile - white with gold	u	10	Y	250	s.f.
12"x12" green floor tile (under HLA11)	u	11	Y	250	s.f.
4" white covebase	u	12	N	120	l.f.
12"x12" floor tile - white with brown	u	13	N	50	s.f.
Ceiling tile - flat and smooth	u	14	N	516	s.f.
Seamless floor covering - black with pink	u	15	N	24	s.f.
Plaster	u	16	N	29,046	s.f.
Vinyl stair cover	u	17	N	36	s.f.
Green sub floor	u	18	N	574	s.f.

## Notes:

u = no damage observed

sd = slightly damaged

d = damaged

l.f. = linear feet

s.f. = square feet