

# **Michigan State University East Lansing, Michigan**

## **Asbestos Inspection Fire Station**

**January 12, 2007  
Project No. G06672**

**ftc&h**

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

**MICHIGAN STATE UNIVERSITY  
EAST LANSING, MICHIGAN**

**ASBESTOS INSPECTION  
FIRE STATION**

**JANUARY 12, 2007  
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## 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

## INTRODUCTION

FTC&H was retained by MSU OEOS, East Lansing, Michigan, to conduct an asbestos building inspection of the Fire Station, Building 131, on West Shaw Lane. 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 using 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; three to seven samples were collected from surfacing materials, depending on the area; and Thermal Systems Insulation was sampled as necessary. Obvious ACMs such as transite, aircell, or other labeled materials were not sampled. As required by MSU, the inspection was limited to the building interior and exterior mechanical equipment. Samples were not collected from roofing materials 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 Asbestos 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.

Nineteen distinct homogeneous materials suspected of containing asbestos were identified during the inspection. The homogeneous materials are described on Table 1. A total of 37 bulk material samples were collected from the 19 homogenous materials, and 41 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 19 homogeneous materials sampled, a total of 10 homogenous materials were identified to contain asbestos above 1 percent by weight. The asbestos-containing homogeneous materials include:

- 9" x 9" vinyl floor tile, blue-gray (HA 1)
- 9" x 9" vinyl floor tile, light brown (HA 2)
- 9" x 9" vinyl floor tile, green (HA 6)
- 1" pipe fittings – 1<sup>st</sup> floor (HA 11)
- 1" pipe fittings – basement (HA 13)
- 2" pipe insulation – basement (HA 14)
- 2" pipe fittings – basement (HA15)
- 4" pipe insulation – basement (HA 16)
- 2" – 4" pipe insulation – garage heaters (HA 18)
- 2" – 4' pipe fittings – garage heaters (HA 19)

Homogeneous materials assumed to be ACM include:

- Fire doors

Homogeneous materials that are non-ACM include:

- 12" x 12" vinyl floor tile, white with black specks (HA 3)
- 6" black cove base (HA 4)
- 12" x 12" gray floor tile (HA 5)
- 1' x 1' white ceiling tile (HA 7)
- 2' x 2' white ceiling tile (HA 8)
- 6" blue-gray cove base (HA 9)
- 6" brown cove base (HA 10)
- 1' pipe insulation – basement (HA 12)
- Drywall and mud (HA 17)

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 asbestos inspection. Non-destructive testing was conducted to collect bulk samples. The samples collected were small in size and from inconspicuous areas.

## CONCLUSIONS

On October 6, 2006, a State-of-Michigan Accredited Asbestos Building Inspector conducted an inspection for asbestos at the Fire Station, Building 131. The ACMs and total quantities found as a result of this inspection are shown in Table 1.



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