

Michigan State University

ASBESTOS BUILDING INSPECTION REPORT



Plant Science Greenhouses - West Range Building Number 93

Inspection conducted by

Zach Hansmann
Office of Environmental Health and Safety
150 Giltner Hall
East Lansing, MI 48824-1101

Project Date: March 14, 2008

Final Report Date: April 10, 2008

Contents

Introduction

Certification

General Inspection Procedures

Results of Visual Inspection

Bulk Sample Results

Summary of Asbestos-Containing Materials

Conclusion

Recommendations

Appendices

A. Asbestos Inspector Credential

B. Lab NVLAP Certification

C. Bulk Sample Log

D. Bulk Sample Analytical Report

E. Materials Sorted by Room

F. Photograph Log

G. Floor Plan Sketches

Michigan State University
Office of Environmental Health and Safety
ASBESTOS BUILDING INSPECTION REPORT
for
Plant Science Greenhouses - West Range (#93)

INTRODUCTION

The Michigan State University Office of Environmental Health and Safety performed an asbestos building inspection at the Plant Science Greenhouses – West Range. A comprehensive asbestos building inspection was performed, 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 March 14, 2008. 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 Zach Hansmann, a State of Michigan Accredited Asbestos Building Inspector. Mr. Hansmann also maintains accreditation as an Asbestos Contractor Supervisor. A copy of his inspector credentials appear in Appendix A.

Samples were analyzed in the Polarized Light Microscopy (PLM) laboratory at Fibertec Industrial Hygiene Services. The Fibertec IHS PLM laboratory maintains 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 Plant Science Greenhouses – West Range, 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.*, roofing materials and products).

Determination of suspect asbestos-containing material was based on visual examination, bulk sample analysis and material age. Specifically, materials similar in color and texture were classified into homogenous areas (*e.g.*, drywall and drywall joint compound). An appropriate number of samples were collected from material in each homogenous area. 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. Where floor tile was detected below carpet, the tile found at the room edge was presumed present in the entire room.

RESULTS OF VISUAL INSPECTION

Based on the inspection, 26 distinct suspect asbestos-containing materials were identified in the building. Some suspect asbestos-containing materials were sampled a number of times in different locations, floor tile and mastic 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 (Materials Sorted by Room), F (Photograph Log), and G (Floor Plan Sketches).

SUMMARY OF ASBESTOS-CONTAINING MATERIALS

The following materials were found to contain asbestos at the Plant Science Greenhouses – West Range:

- Gray 9”x 9” floor tile with gray, white, and rust streaks and associated mastic
- Gray caulk, 1978 addition
- Black caulk with white glazing layer, 1978 addition
- Brown 9”x 9” floor tile with red and cream streaks
- White glazing on metal windows
- White Styrofoam ceiling insulation with black mastic and associated gluepods
- Black covering on metal fixture
- Black wall and ceiling covering on cork
- 4” Black cove molding and associated mastic
- 12”x 12” Gray floor tile with light gray and black streaks and associated mastic
- White pipe coating

The following materials were assumed to contain asbestos at the Plant Science Greenhouses – West Range:

- Assorted pipe straight insulation
- Assorted pipe fitting and hanger insulation
- Electric wire wrap
- Fire doors and frames

The following materials were found not to contain asbestos at the Plant Science Greenhouses – West Range:

- Mastic to 9”x 9” Brown floor tile with red and cream streaks
- Unfinished drywall above ceiling
- 6” Black cove molding and associated mastic
- 2’x 4’ ceiling tile with smooth wave pattern with pinholes and fissures
- 2’x 4’ ceiling tile with pinholes and fissures
- Heavy texture wall plaster skim coat
- 2’x 2’ drop in ceiling tile with pinholes
- Drywall
- Drywall joint compound
- Black and blue pipe covering
- White window glazing
- White exterior wall glass glazing

CONCLUSION

Undamaged, non-friable (cannot be crumbled, pulverized or reduced to powder by hand pressure when dry) known or assumed 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, the EPA Sampling Bulletin of September 30, 1994, 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 the current regulatory framework, currently observed conditions, and may have to be adjusted if change in regulations, 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.
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. Sample and analyze any samples representing materials which were assumed to contain asbestos prior to 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).
5. Repair or remove areas of ACM that may become significantly damaged. Ensure contractors performing the work are licensed, provide appropriate regulatory notification and conduct appropriate air monitoring, including final clearance monitoring.

Zach Hansmann
Environmental Technologist, MSU EHS
Michigan Accredited Asbestos Inspector, #A35562