

November 18, 2002

REPORT: Full Building Survey

TO: Ben Ystenes, Facilities Supervisor, Facilities Management Zone 5, Room 19, Scott Hall

FROM: Dave Klaustermeier, Asbestos Group, Environmental Health and Safety,
W-140 Boynton H. S., 410 Church Street SE, Minneapolis, MN 55455

SUBJECT: Asbestos Material Survey - Jones Hall
EH&S Project No: 017-95-111
Client Project No: for database

Scope of Work: A full building asbestos material survey was conducted November 8, 1995 through November 14, 1995. The purpose of the survey was to identify asbestos-containing materials (ACM) as defined by the Environmental Protection Agency (EPA). Any material that is greater than 1% asbestos is considered to be ACM. The intent of the survey was to identify both friable and nonfriable suspect ACM, identify nonfriable ACM that may become friable under demolition or renovation conditions, and to provide approximate cost estimates for the removal of identified ACM prior to any renovation of Jones Hall.

Project Description: Ninety-four (94) bulk samples of suspect ACM were collected on-site and seventy-three (73) were analyzed via polarized light microscopy (PLM) by University of Minnesota Department of Environmental Health and Safety for asbestos content. Results of analyses are listed in Appendix I of this report. Appendix I is formatted to provide a room by room inventory of suspect ACM, the asbestos content of each material listed, and friability. An explanation of the tables and abbreviations used in the tables is included with Appendix I. Appendix II is a room by room listing of only those suspect materials that tested >1% asbestos. Minnesota Department of Health (MDH) Asbestos Rules regulate only friable ACM (material may be reduced to powder or dust under hand pressure) while the EPA regulates ACM that may become friable under demolition or renovation conditions.

The following friable or potentially friable materials tested positive as ACM:

- <4" white fibrous pipe insulation (PI) (1)
- <4" pipe fitting insulation (PFI) on white fibrous (2)
- <4" aircell PI (3)
- <4" fibrous PFI on aircell (4)
- 4"-8" white fibrous PI (11)
- 4"-8" PFI on white fibrous (12)
- 9"x9" beige w/ brown and white streaks FT (42)
- 9"x9" white w/grey swirls FT (43)
- 9"x9" grey w/white streaks FT (44)
- 9"x9" grey w/white and black streaks FT (45)
- 12"x12" beige w/brown and white flecks FT (70)

The following suspect materials tested none detected (ND) as ACM:

- <4" fiberglass PI (9)
- <4" fibrous PFI on fiberglass (10)
- black foam PI (29)
- ceiling plaster (34)

- wall plaster (35)
- yellow brick mortar (36)
- sheetrock and taping compound (39)
- baseboard adhesive (40)
- 9"x9" tan w/white and grey streaks FT (41)
- floor tile adhesive - sample 41 (41.5)
- 12"x12" patterned CT (100)
- black lab top (131)
- brown fiberboard (137)
- black windowsills (138)
- <4" cal-sil pipe insulation (140)
- <4" PFI on cal-sil (141)
- 4"-8" cal-sil pipe insulation (142)
- 4"-8" PFI on cal-sil (143)

The following nonfriable with low potential to become friable materials tested positive as ACM:

- **floor tile adhesive (42.5, 43.5, 44.5, 70.5)**
- **sink undercoating (135)**

For room locations of above noted materials, refer to Appendices. Sample numbers of the above materials are located in the parenthesis following the sample descriptions.

Observations and Recommendations:

1. Department of Environmental Health & Safety (DEHS)

Please refer to condition assessments for specific damaged areas. In general, materials were found to be in good to excellent shape and do not pose significant health concerns to the building occupants.

2. Facilities Management;

Pipe insulation located in Room 13(closet) is damaged. It is recommended that the pipe insulation be repaired with a encapsulant by Facilities Management's Asbestos Abatement Crew. Contact Facilities Management's Asbestos Coordinator Tim Nelson with questions regarding repair of damaged pipe insulation.

3. General;

Due to limited access points in the ceilings and walls, some pipe chases and interstitial spaces were completely inaccessible or only slightly visible. As a result, the quantities listed reflect the visibility available at the time of the survey.

Although no roofing sampling was done, complete roof sampling is recommended at a time when a qualified roofing contractor is on-site to patch core sample holes in roofing.

Cost Information: The approximate cost for the removal of all ACM is itemized below. These figures are based on the assumption that all friable and potentially friable ACM are going to be removed. For project specific removal costs, contact this office with your project requirements and unit costs can be calculated for the impacted areas.

MATERIAL TYPE	LOW RANGE	HIGH RANGE
• thermal system insulation	33,757	43,897
• floor tile & adhesive	15,376	30,752
• sink undercoating	375	750
TOTAL	49,508	75,399

All ACM removal must be performed by a Minnesota licensed asbestos abatement contractor. All asbestos removal shall be performed within the specified procedures as outlined in the University of Minnesota Technical Specification for Asbestos Abatement. Please note that removal costs are highly variable and dependent on such factors as contractor availability, accessibility of work areas and site specific work plans.

Air monitoring is required for many asbestos-related projects. Environmental Health and Safety (EH&S) is available to provide this service. The estimated cost for EH&S to complete air monitoring requirements for specific projects will be made available upon request. The cost of air monitoring is a function of contractor on-site days and may vary dependent upon project specific scope of work. EH&S will provide labor, equipment and project oversight as necessary. Project management and contract administration will be provided by the Facilities Management Project Development Group.

EH&S also recommends that throughout the general renovation activities associated with this building, precautions and work practices should be implemented to minimize nuisance dust levels. Dust suppression techniques (misting the air with water and keeping materials wet) should be required of the general contractor.

If there are any questions or for further information regarding this report please contact Dave Klaustermeier at 626-2328.

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