March 30, 1995

REPORT: Full Building Survey

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SUBJECT: Asbestos Material Survey - Vincent Hall
EH&S Project No: 060-95-005
Client Project No: For Data Base

Scope of Work: A full building asbestos material survey was conducted on January 20 through February 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 renovation of Vincent Hall.

Project Description: Bulk samples of suspect ACM were collected on-site and analyzed via polarized light microscopy (PLM) 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 and associated pipe fitting insulation**
- **<4" aircell pipe insulation and associated pipe fitting insulation**
- **<4" felt with tar insulation and associated pipe fitting insulation**
- **<4" fibrous pipe fitting insulation on fiberglass with tar**
- **<4" fibrous pipe fitting insulation on fiberglass**
- **4"-8" white fibrous pipe insulation and associated pipe fitting insulation**
- **4"-8" aircell pipe insulation and associated pipe fitting insulation**
- **4"-8" felt with tar insulation and associated pipe fitting insulation**
- **4"-8" fibrous pipe fitting insulation on fiberglass**
- **9"-14" white fibrous pipe insulation and associated pipe fitting insulation**
- **9"-14" aircell pipe insulation and associated pipe fitting insulation**
- **9"-14" felt with tar insulation and associated pipe fitting insulation**
- **white fibrous tank insulation**
- **spray-on fireproofing**
- **12"x12" ceiling tile, pinhole worm**
- **2'x2' ceiling tile, pinhole worm**
- **2'x4' ceiling tile, pinhole worm**
- **9"x9" floor tile, white with beige**
- **9"x9" floor tile, brown**
- **9"x9" floor tile, cream with white and beige**
- **12"x12" floor tile, chocolate brown**
- **12"x12" floor tile, tan with beige**

- **12"x12" floor tile, light grey with white**
- **12"x12" floor tile, black with white**
- **12"x12" floor tile, grey with cream**
- **suspect radiator backing**

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

- <4" fiberglass pipe insulation
- <4" fiberglass with tar pipe insulation
- 4"-8" fiberglass pipe insulation
- 9"-14" fiberglass pipe insulation and associated pipe fitting insulation
- ceiling plaster
- wall plaster
- 12"x12" ceiling tile, pegboard
- 12"x12" wall tile, pinhole fissured
- 2'x2' ceiling tile, pinhole crater
- 2'x2' ceiling tile, pinhole mini-crater
- 2'x2' ceiling tile, pinhole fissured
- 12"x12" floor tile, spiced pumpkin
- 12"x12" floor tile, butter with multi-colors
- grey flooring
- fiberglass duct insulation
- concrete block mortar
- red brick mortar
- clay tile mortar
- canvass vibration joints
- ceiling tile adhesive

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

- **floor tile adhesive**

The following nonfriable with low potential to become friable materials tested less than 1% asbestos:

- baseboard adhesive
- sheetrock and taping compound

For room locations of above noted materials, refer to Appendices.

Observations and Recommendations:

1. Department of Environmental Health & Safety (DEHS);
   Spray-on fireproofing is present above all ceilings except on 6th Floor. However, since the area above the ceiling is not an air plenum, it does not pose significant health concerns to the building occupants. Please refer to condition assessments for specific damaged areas. In general, the spray-on material was found to be in good shape.

2. Facilities Management;
   Over-spray of the asbestos containing spray-on fireproofing was observed above the ceilings on electrical conduit, concrete decking and duct work. Due to the presence of suspect dust on the ceilings and the possibility of delamination of the spray-on, proper Operation & Maintenance (O&M) procedures should be followed whenever working on or above the plaster ceilings and ceiling panels.

   Samples taken of the spray-on fireproofing produced mixed results. As a result, all spray-on is listed in the Appendices as being asbestos containing. Project specific sampling would be recommended to minimize abatement costs.

In some rooms throughout the building, carpeting is covering the asbestos containing floor tile. This should be noted in case the carpeting is removed during the proposed renovation project. If the floor tile comes up with the carpet, the carpet should then be removed by the Facilities Management Asbestos Abatement Unit or a Minnesota Licensed asbestos abatement contractor.

3. General;
In the Appendices, material descriptions followed by a date refer to samples referenced from previous surveys conducted by Delta Environmental Consultants or by the Department of Environmental Health & Safety. The date refers to the original sampling date.

Due to limited access points in the ceilings and walls, some pipe chases and areas above ceilings 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 roof 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.

Rooms S15, 10A, and 650 were inaccessible at the time of the survey.

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	**$152,823**	**$199,240**
• spray-on fireproofing (visible)	**553,828**	**906,264**
• floor tile & adhesive	**103,492**	**206,984**
• ceiling tile	**132,198**	**264,396**
TOTAL	**$942,341**	**$1,576,884**

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 is any further information required, or other questions arise regarding this request, please contact John Allen at 627-4861.

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