November 2, 2005

REPORT: Full Building Survey

TO: Catherine Born, Vice President, Minnesota International Center, 711 East River Road, Minneapolis, MN 55455

FROM: John Allen, Facilities Management Hazardous Materials Program (FMHMP), 1521 4th Street SE, Minneapolis, MN 55455

SUBJECT: Asbestos Material Survey – Minnesota International Center – 711 East River Road
FM Project No.: NA

Scope of Work: A full building asbestos material survey was conducted on October 31 and November 1, 2005. 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 non-friable suspect ACM, identify non-friable ACM that may become friable under demolition or renovation conditions, and provide approximate cost estimates for the removal of identified ACM prior to renovation of the Minnesota International Center.

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” white fibrous pipe fitting insulation on fiberglass
- 4”-8” white fibrous pipe insulation and associated pipe fitting insulation
- white with tan linoleum
- suspect white paper

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

- <4” fiberglass pipe insulation
- 4”-8” fiberglass pipe insulation and associated pipe fitting insulation
- fiberglass duct insulation
- ceiling plaster
• wall plaster
• brick mortar
• clay tile mortar
• sheetrock and taping compound
• baseboard adhesive
• 2’x2’ ceiling tile, fissured pinhole
• canvass vibration joint
• window glazing
• suspect wiring

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

• grey sink undercoating

Observations and Recommendations: Due to limited access points in the ceilings and walls, some pipe chases 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.

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.

<table>
<thead>
<tr>
<th>MATERIAL TYPE</th>
<th>LOW RANGE</th>
<th>HIGH RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>thermal pipe insulation</td>
<td>$5,380</td>
<td>$6,816</td>
</tr>
<tr>
<td>linoleum</td>
<td>400</td>
<td>700</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$5,780</td>
<td>$7,516</td>
</tr>
</tbody>
</table>

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. The Asbestos Group of the Facilities Management Hazardous Materials Program (FMHMP) is available to provide this service. The estimated cost for FMHMP 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. FMHMP will provide labor, equipment and project oversight as necessary. Project management and contract administration will be provided by the FMHMP.

FMHMP 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 (612) 625-6311.

Written By:

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