



Mercury identification and remediation in landmark Manhattan lofts and a Brooklyn skyscraper

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This presentation will detail Langan Engineering & Environmental Services' (New York, NY) pioneering endeavor into the remediation of buildings contaminated with elemental mercury and bring attention to the significant impact of processes involving mercury and man-made mercury-containing products on our living environment. This presentation will provide a background on the emerging field and highlight two mercury remediation projects within landmark structures in the Manhattan and Brooklyn boroughs of New York City. The Brooklyn and Manhattan projects have been on-going since June 2005 and November 2003, respectively. Both projects will be completed in early 2008 and have been shown to be successful through extensive indoor air sampling. Combined, the projects represent a total of approximately 50,000 square feet of remediated and reclaimed floor space.

The remedial objectives were to provide a safe, healthy place to live, satisfy the requirements of the New York City Department of Health (achieve an airborne concentration less than $1.0 \mu\text{g}/\text{m}^3$) and maintain property values. The scope of activities included investigation, pilot study design and implementation, full-scale remedial design and oversight, clearance sampling and closure reporting, design of a Site Management Plan, and on-going post-remediation monitoring.

The presentation will detail the health effects of mercury when impacted properties are changed from industrial/commercial to residential, the innovative remedial measures that were evaluated and implemented, a discussion of the effectiveness of vapor barrier products, encapsulant paint, fresh air ventilation systems, and varying extents of removal. The presentation will also brief our peers on mercury threats to our living

environment and associated regulation in the United States of America. In addition, we plan to draw parallels to other similar mercury remediation projects including the infamous Grand Street remediation in Hoboken, New Jersey.