

New York City Department of Health

Residential Sampling in Lower Manhattan

Purpose of Sampling

- To determine if residents are being exposed to concentrations of materials that may be of public health concern
- To communicate information to the public on the potential health implications of sample results

What was sampled?

Air:

- Fibers
 - Asbestos
 - Other Fibers (fiberglass, etc.)
- Particulate Matter

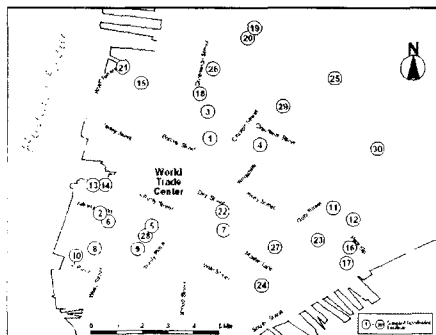
Dust:

- Fibers
 - Asbestos
 - Other fibers (fiberglass, etc...)
- Silica
- Mica
- Calcite
- Gypsum
- pH

How were buildings selected?

- Proximity to Ground Zero
- Willingness to Participate
- Building Condition
 - Cleaned 50 85 2
 - Not cleaned 9

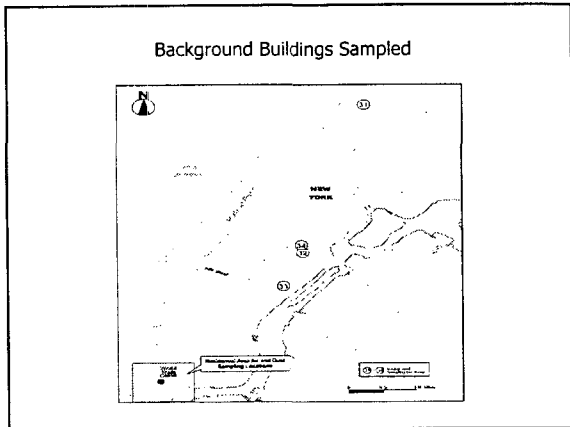
Buildings Sampled in Lower Manhattan



Sampling Locations

- 30 Residential Buildings in Lower Manhattan
 - 1 outdoor area
 - 1 common area (i.e. hallway, lobby)
 - 2 residential units (Unoccupied and Occupied Units)
- 4 Residential Buildings above 59th Street

05/13 2:17 PM



Sampling Methods

- Air Sampling
 - Half-day sampling — *now occupied 502*
 - 'aggressive' sampling
 - passive
- Dust Sampling
 - Outdoor – Visible dust collected from a surface
 - Indoor – Dust vacuumed from a floor

- 9 NOT CLEANED

Analytical Methods - Air

- Fibers
 - Phase Contrast Microscopy (PCM)
 - Transmission Electron Microscopy (TEM)
- Particulate Matter
 - Gravimetric (weighed)

Analytical Methods - Dust

- Fibers
 - Polarized Light Microscopy (PLM)
 - Transmission Electron Microscopy (TEM)
- Mineral Content
 - X-Ray Diffraction (XRD) *confirmation components I will board*



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confirmed by TEM
 STANDARD: .01 f/cc
 STANDARD: 1% DEP

Results: Asbestos in Air

- 30 buildings sampled
 - Residential Units
 - 59 apartments sampled
 - Common Areas
 - 29 locations sampled
 - Outdoor
 - 29 locations sampled
- No asbestos in air detected above standard

Results: Asbestos in Dust

- 58 apartments sampled -asbestos detected in 11 units
- 26 common areas sampled - asbestos detected in 5 areas
- 14 outdoor areas samples - asbestos detected in 5 areas

Asbestos Results

- No levels of asbestos fibers were detected above the regulatory standard in any air samples (117 samples collected)
- Asbestos was detected in 21 out of 98 dust samples
- 2 sites (both outdoors) required asbestos abatement

Results: Other Fibers

- Other Fibers in Air
 - Results Pending
- Other Fibers in Dust
 - Fibrous Glass – Preliminary Results
 - Other Analytes Pending

Results: Fibrous Glass - Dust

- 58 apartments sampled – Fibrous Glass detected in 23 areas
- 26 common areas sampled – Fibrous Glass detected in 11 areas
- 14 outdoor samples tested – Fibrous Glass detected in 9 areas

Recommendations

- Continue cleaning
 - Use wet cleaning methods
 - HEPA Vacuum
- Avoid carrying dust into buildings

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