Remediation and Deconstruction of Fiterman Hall

CUNY/DASNY
Pei Cobb Freed Team
Public Information Session

March 21, 2007
Project Update

- Building will be fully decontaminated before deconstruction

- Scaffold: first step

- Approval of plans is imminent

- Work will begin approximately three weeks after approval

- EPA Comments on Remediation Plan: mid - April
Community Advisory Committee

• CB 1 and Speaker Silver help establish committee; included are:
  • Local residents, community groups
  • Business and employee representatives
  • Elected Officials
  • BMCC students, faculty

• CAC met Feb. 9 and March 2

• CAC will meet approximately every 6 weeks
Agenda

**Benn Lewis, Airtek**
- Previous Environmental Reports
- Worker Training & Site-Specific Orientation
- The Gaylord Box
- Interpreting Community Monitoring Data
- Community Monitoring Test Parameters

**Leslie Mesnick, AKRF**
- Emergency Action Plan

**Scott Anderson, BMCC**
- BMCC Preparedness Plans

**Questions and Answers**
Requested Topics

• Previous Environmental Reports
• Worker Training & Site-Specific Orientation
• The Gaylord Box
• Interpreting Community Monitoring Data
• Community Monitoring Test Parameters
• Emergency Action & Community Notification
Previous Environmental Reports

H.A. Bader Report – February 18, 2002

Applied Technology Services Report – February 19, 2002

Applied Technology Services Report – March 15, 2002

Tiffany-Bader Report – May 24, 2002

Airtek Insurance/FEMA Study – October 10, 2002
• **Purpose:** Environmental investigation with focus on fifth floor computer rooms and potential for removing equipment.

• **Testing:** Asbestos, Dioxin, Mercury, PCBs, Metals

• **Conclusion:** Serious environmental contamination. Contents should not be removed. Appropriate respiratory protection must be worn by all personnel entering the building.

• **Response:** Building contents left in place.
• **Purpose:** Re-occupancy evaluation

• **Testing:** Asbestos, Lead, Metals, VOCs, Dust, Dioxins

• **Conclusion:** Contamination is pervasive and ubiquitous. Building should be closed to the public. Further construction activity only with proper respiratory protection and personal protective equipment.

• **Response:** Continued restrictions on entry and interior activities.
• **Purpose:** Investigate apparent mold conditions due to water incursion on upper floors.

• **Testing:** Mold Conditions – Upper Floors

• **Conclusion:** Indicated high concentrations of bacteria and fungi commonly found in a moist environments.

• **Response:** Mold abatement on upper floors, additional measures to prevent incursion.
• **Purpose:** Investigate apparent mold conditions due to water incursion on upper floors.

• **Testing:** Mold conditions

• **Conclusion:** Building represents health hazard. Should remain unoccupied until completely decontaminated.

• **Response:** Continued periodic inspection for increasing mold conditions. Additional measures to prevent incursion.
Purpose: Provide evaluation of previous investigation reports. Evaluate current conditions. Create summary presentation in support of Insurance and FEMA claims.

Testing: Asbestos, Metals, Lead

Conclusion: No re-occupancy without full gut-strip under full environmental containment engineering controls. Stringent clearance requirements for re-occupancy.

Response: Remediation and Deconstruction of Fiterman Hall
## Data Summary

<table>
<thead>
<tr>
<th>Substance</th>
<th>Sample Type</th>
<th>Measurement Unit</th>
<th>Measurement Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asbestos</td>
<td>20 Micro-vacuum</td>
<td>s/cm²</td>
<td>0 to 1,677,624</td>
</tr>
<tr>
<td>Mercury</td>
<td>24 Wipe Samples</td>
<td>ng/sf</td>
<td>0 to 27</td>
</tr>
<tr>
<td>Dioxins</td>
<td>28 Wipe Samples</td>
<td>ng/m²</td>
<td>0.65 to 64.69</td>
</tr>
<tr>
<td>PCBs</td>
<td>23 Wipe samples</td>
<td></td>
<td>None Detected</td>
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</table>
## Data Summary

### Metals Wipe Samples

<table>
<thead>
<tr>
<th></th>
<th>Type</th>
<th>Value Range</th>
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</thead>
<tbody>
<tr>
<td>Antimony</td>
<td>Wipe samples</td>
<td>&lt;0.9 to 37 ug/sf</td>
</tr>
<tr>
<td>Arsenic</td>
<td>Wipe samples</td>
<td>&lt;0.45 to 22 ug/sf</td>
</tr>
<tr>
<td>Beryllium</td>
<td>Wipe samples</td>
<td>0.038 to 0.14 ug/sf</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Wipe samples</td>
<td>&lt;0.19 to 14.7 ug/sf</td>
</tr>
<tr>
<td>Chromium</td>
<td>Wipe samples</td>
<td>&lt;0.45 to 140 ug/sf</td>
</tr>
<tr>
<td>Copper</td>
<td>Wipe samples</td>
<td>&lt;1.0 to 1,630 ug/sf</td>
</tr>
<tr>
<td>Iron</td>
<td>Wipe samples</td>
<td>&lt;10 to 132,000 ug/sf</td>
</tr>
<tr>
<td>Lead</td>
<td>Wipe samples</td>
<td>&lt;1.4 to 1226 ug/sf</td>
</tr>
<tr>
<td>Manganese</td>
<td>Wipe samples</td>
<td>0.20 to 1,140 ug/sf</td>
</tr>
<tr>
<td>Nickel</td>
<td>Wipe samples</td>
<td>&lt;0.6 to 132 ug/sf</td>
</tr>
<tr>
<td>Zinc</td>
<td>Wipe samples</td>
<td>&lt;3.3 to 15,900 ug/sf</td>
</tr>
</tbody>
</table>

www.airtekenv.com
## Data Summary

### Metals Bulk Samples

**Airtek – 20 Samples**

<table>
<thead>
<tr>
<th>Metal</th>
<th>Type</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium</td>
<td>Bulk Samples</td>
<td>1.45 to 30.3 mg/kg</td>
</tr>
<tr>
<td>Chromium</td>
<td>Bulk Samples</td>
<td>11.5 to 271 mg/kg</td>
</tr>
<tr>
<td>Copper</td>
<td>Bulk Samples</td>
<td>198 to 838 mg/kg</td>
</tr>
<tr>
<td>Iron</td>
<td>Bulk Samples</td>
<td>7,150 to 27,800 mg/kg</td>
</tr>
<tr>
<td>Lead</td>
<td>Bulk Samples</td>
<td>68.7 to 744 mg/kg</td>
</tr>
<tr>
<td>Manganese</td>
<td>Bulk Samples</td>
<td>0.20 to 1,140 mg/kg</td>
</tr>
<tr>
<td>Nickel</td>
<td>Bulk Samples</td>
<td>8.07 to 101 mg/kg</td>
</tr>
<tr>
<td>Zinc</td>
<td>Bulk Samples</td>
<td>486 to 13,400 mg/kg</td>
</tr>
</tbody>
</table>
Worker Training & Site Orientation

- NYS DOL & NYC DEP Asbestos Certification
- HASP & Site Orientation
  - Worker Safety
  - Site Control (Community Protection)
- HAZWOPER
  - Curriculum Review
  - Outreach to Stakeholders
The Gaylord Box

Construction:

- Dual-lined heavy-duty cardboard box

Advantages:

- Built-in double containment system
- Resistant to tearing - Problem with poly bags
  Larger/tougher than ACM bags
- Moveable with palette jacks/forklifts
- Can be stacked – Efficiency of space/transport
Interpreting Community Air Monitoring Data

General Industrial Hygiene Industry Standards:

• Focus on exposure over time: Example = OSHA 8-hr TWA
• Provide verification of project controls – i.e., negative air/critical barriers/PPE
• Identify patterns over long-term project conditions – Identify progressive adjustments

The Fiterman Plan uses the Interrelation of Data:

• Real-time indications of potential problems (dust and mercury vapor)
• Asbestos sampling (a primary WTC CoPC) blankets site (72 points) and provides 24-hour verification of effectiveness of site engineering controls
• Silica, Total Mercury, and Metals at 72 hours
• Organics at 14 days

After Week Two of a 64-week Project:

• Complete picture of initial contaminant patterns
• Complete picture of project performance
• Support data for advisable adjustments to work plan and/or sampling plan

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# Monitoring Parameters

<table>
<thead>
<tr>
<th>Turnaround</th>
<th>Trigger</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Real Time:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mercury (Vapor)</td>
<td>Indicator</td>
<td>Indicator</td>
</tr>
<tr>
<td>PM-10/PM-2.5</td>
<td>150/65ug/m³</td>
<td>Indicator</td>
</tr>
<tr>
<td><strong>24 Hours:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asbestos</td>
<td>70 s/mm²</td>
<td>Schools (AHERA)</td>
</tr>
<tr>
<td><strong>72 Hours:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silica</td>
<td>10 ug/m³</td>
<td>~ WTC Background</td>
</tr>
<tr>
<td>Mercury (Total)</td>
<td>3 ug/m³</td>
<td>USEPA OSHA = 100</td>
</tr>
<tr>
<td>Metals</td>
<td>Various</td>
<td>USEPA Risk-based</td>
</tr>
<tr>
<td><strong>14 Days:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organics (Dioxin, PCB, PAH)</td>
<td>.025ng/12ug/3.5ug</td>
<td>USEPA Risk-based</td>
</tr>
</tbody>
</table>

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Fiterman Hall Remediation
Communication Sequence for Air Contaminant Exceedence
Trigger Level Exceedence due to Onsite/Offsite Source

Onsite Air Monitors ↔ Offsite Laboratory
* Readings in exceedence of trigger level *

Airtek Environmental Corp.
* Issues immediate mandatory Stop Work Order. Immediate call and email to Regulators. *

Contractor Safety Officer
* Works with Airtek to determine onsite/offsite source and take corrective actions *

Regulators
(USEPA, NYSDOL (asbestos only), NYCDEP)
* Airtek conducts exceedence assessment. Provides Regulators with written report including remedial response actions, if any. *

Subcontractors (if needed for corrective actions)

LMCCC
* Regulators provide sampling data and exceedence assessment report to LMCCC for posting to lowermanhattan.info.*

Tishman/LiRo
DASNY/CUNY/BMCC

Updates to Public (eg, website update, info sessions)
Emergency Action & Community Notification Plan

- Draft Emergency Action & Community Notification Plan issued October 2006
- Comments received at Public Information Sessions and from Community Advisory Committee
- Meeting held with OEM, FDNY, NYPD, and LMCCC to confirm emergency procedures and community notification protocols used in NYC
Fiterman Hall Remediation
Communication Sequence for Emergency Situation
(e.g., fire, structural failure)

During the Incident:
- Contractor Safety Officer (or designee)
  - 911
  - FDNY/NYPD Primary Agency(ies)
    - *Determine corrective actions*
    - *If public notification needed*
      - Public Information Message issued through OEM/Mayor’s Office
      - Local CERTs (if warranted)
      - OEM Watch Command
      - Airtek
      - Regulators: USEPA, NYSDOH, NYCDEP

After the Incident:
- *Provides written assessment*
- Updates to Public
  - *Hotline and website updates, info session*
- Airtek
  - Tishman/LiRo
  - DASNY/CUNY/CCMC
  - LMCCC
  - BMCC
  - CERT
Trained, Skilled, Leadership Staff

- Ed Moss, Director of Public Safety
- Ed Sullivan, Director of Operations, Planning and Construction
- 60 CERT Trained Security and Facilities Staff
- BMCC Community Emergency Management Training Initiative
- Building and grounds personnel, faculty/staff
Expanded Emergency Plans to be Issued

- Detailed brochure for students, faculty and staff on internet
- Excerpted version
  - Handed out in student registration packets, handbook and catalog
  - To be posted in classrooms, lounges, etc.
- Emergency Preparedness information on a health and safety webpage to be added to BMCC’s site
- Proposed roll out: four to six weeks
Additional Preparations

• Audio Response System
• Call boxes and AEDs
• EvacuTrak chairs
• Localized exit signage
• Plasma screen alerts

• Drills: Fall, Spring and Summer semesters – night and day drills at 199 Chambers St. and 70 Murray St.
Questions?

www.bmcc.cuny.edu/fitermannews/

www.lowermanhattan.info/construction/project_updates/fiterman_hall_39764.aspx