Briefing for the National Construction Safety Team Advisory Committee

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U.S. Department of Commerce

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NCST Advisory Committee Charter

The Committee will:

• Advise the NIST director on carrying out investigations of building failures, including advice on investigation team composition and function.

Members selected based on:

• Technical expertise and experience;
• Established records of distinguished professional service; and
• Knowledge of issues affecting investigation teams.
Working with others...

- Government agencies (federal, state, local)
- Professional societies
- Trade associations
- Standards and code organizations
- Public
NIST’s mission is to develop and promote measurement, standards, and technology to enhance productivity, facilitate trade, and improve the quality of life.

NIST Assets Include:

- 3,000 employees
- 1,600 guest researchers
- $865 million operating budget
- NIST Laboratories -- National measurement standards
- Advanced Technology Program -- R&D partnerships with industry
- Manufacturing Extension Partnership -- 400 centers nationwide to help small manufacturers
- Baldrige National Quality Award -- promotes and recognizes organizational performance excellence
NIST Laboratories

Broad technical expertise to develop measurements and standards to enable:

- Science
- Technology innovation
- Trade
- Public benefit

Core programs include:

- Building construction and fire safety standards
- Computer security
- Radiation measurements
- Analytical chemistry measurements
- Law enforcement and first responder technologies
1,500 buildings burned to the ground because fire companies from outside Baltimore could not attach their hoses to fire hydrants.

Following this tragedy, NIST helped develop a national standard for fire-hose couplings.
### Prior NIST investigations

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<tr>
<th>Earthquakes</th>
<th>Tornadoes</th>
<th>Fires</th>
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<td></td>
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<td>Happyland Social Club, Bronx, NY (1990)</td>
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<td>Oakland Hills, CA (1991)</td>
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<td>Hokkaido, Japan (1993)</td>
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<td>Watts St, New York City (1994)</td>
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<td>Northridge Earthquake, CA (1994)</td>
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<td>Kobe, Japan (1995)</td>
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<td>Vandaira St, New York City (1998)</td>
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<td>Cherry Road, Washington, DC (1999)</td>
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<td>Houston, TX (2000)</td>
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<td>Phoenix, AZ (2001)</td>
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<th>Hurricanes</th>
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<td>Camille, MS/LA (1969)</td>
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<td>Alicia, Galveston, TX (1983)</td>
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<td>Hugo, SC (1989)</td>
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<td>Andrew, FL (1992)</td>
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<td>Hurricane Mitch and Georges, LAC (1998)</td>
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<th>Construction/Building</th>
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<td>Skyline Plaza Apartments, Bailey’s Crossroads, VA (1973)</td>
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<td>Willow Island Cooling Tower, WV (1978)</td>
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<td>Kansas City Hyatt Regency, Kansas City, MO (1981)</td>
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<td>Riley Road Interchange, East Chicago, IN (1982)</td>
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<td>Harbor Cay Condominium, Cocoa Beach, FL (1981)</td>
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<td>L'Ambiance Plaza, Hartford, CT (1987)</td>
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<td>Ashland Oil Tank Collapse, Floreffe, PA (1988)</td>
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<td>U.S. Embassy, Moscow, USSR (1987)</td>
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<td>Murrah Federal Building, Oklahoma City, OK (1995)</td>
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Prior NIST investigations (cont.)

Results:
• Probable technical cause
• Lessons learned: successes and failures
• Improvements to standards, codes, and practices, technologies
• Establish future research priorities

NIST Responsibility:
• Recommend changes to codes, standards, practices
National Construction Safety Team Act, PL 107-231

**Issue:** No one had lead responsibility to investigate and derive lessons for the future

**Proposal:** An “NTSB-like” body...
- Independent, objective, fact, not fault-finding
- Ability to collect, analyze, make public critical information

**National Construction Safety Team Act:**
- Introduced by Boehlert in House, Clinton in Senate
- Signed into law October 1, 2002
- Establish Federal Advisory Committee
- Applies to WTC investigation as well.

**Tasks NIST Director to establish teams, develop reports:**
- When practical, launched within 48 hours
- Teams include at least one NIST employee

**Authorities:**
- Entry/inspection
- Subpoena, briefings, hearings, witnesses
- Priority (except for criminal investigations)
Liaison...Special emphasis

- Professional societies
- Briefings, progress reports
- Extensive web site
- Liaison to victims’ families
- NYC authorities
Liaison…Special emphasis

- Port Authority of NY and NJ
- FDNY
- NYPD
- more...
**Cooperation**

- Large volumes of information received from designers, owners, leaseholders, suppliers, contractors, and insurers.
- More information is still needed…and we are pursuing.
- Systematic collection of information under way.
Rhode Island Nightclub Fire Investigation

- February 20, 2003
- West Warwick, R.I.
- Nearly 100 deaths
- NIST decided to launch investigation
Bottom line...

Make all buildings safer for occupants and first responders.
Expectations

The NCST Advisory Committee will

• Provide sound judgment and counsel in helping NIST fulfill its statutory responsibilities,

• Help us think outside-the-box in analyzing extreme events,

• Keep us on track in performing our roles under the NCST Act, and

• Help us assure that the public interest in construction safety is well served.