Dissemination and Technical Assistance Program (DTAP) Status Report August 26, 2003

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Dissemination and Technical Assistance Program

BPAT Recommendations

Govt., Industry Professional, Academic Inputs/Actions

Public Inputs/Efforts

WTC Investigation

Research & Development

Dissemination and Technical Assistance Program

Guidance and Tools for Improved Practices

Technical Basis for Improved Building and Fire Codes and Standards

Owners, Contractors, Designers, Emergency Responders and Regulatory Authorities

Standards and Code Development Organizations
Research and Development Program

**Structural Fire Protection**
1. Fire safety design & retrofit of structures
2. Method of fire resistance determination
3. Prevention of progressive structural collapse
4. Improved fire resistance protection of steel

**Human Behavior, Occupant Response, and Mobility**
1. Fire simulation re-creation tool
2. Occupant behavior & response
3. Technology for emergency mobility
4. Guidelines, equipment standards for fire & emergency responders

**Building Vulnerability Reduction**
1. Standard information models
2. Guidelines, advanced technology for Chem., Bio., Radiological attack*
3. Cost-effective risk management tools

* Beyond scope of the WTC and NCST
Dissemination and Technical Assistance Program

**Concept:**
- Forum through which facility owners and contractors deliver and disseminate results of research into ongoing projects and practice.
- Draw on top management, chief scientists/technology officers to motivate needed change.
- Complement and support parallel efforts of engineering societies to improve technology, codes, and standards.

**Functions:**
- Provide advice on best practices, guidance on vulnerability assessment, guidance on standards and codes needs.
- Disseminate and implement R&D outputs.
- Act as clearinghouse (Q&As, industry inputs, needs/priorities, etc,...)
- Benchmark results

**Some Partners:**
- The Infrastructure Security Partnership (TISP/ASCE)
- Construction Industry Institute (CII), and FIATECH
- Civil Engineering Research Foundation (CERF)
- National Institute of Building Sciences (NIBS)
Getting Research Results into Use
An Example from Our Past:
Energy Conservation Standards for Buildings

NBS Develops Energy Document; “Energy Conservation Design and Retrofit for Buildings”
NBS Transmits it to NCSBCS
NCSBCS Requests ASHRAE to develop it into standard
ASHRAE Produces Standard 90
ASHRAE Sponsors nationwide “train the trainer” program
ASHRAE transmits Standard 90 to Model Code organizations
Model Codes reference ASHRAE 90
Adopted in State/Local Codes
Some Planned “Products” of R&D Program

- Prevention of Progressive Structural Collapse - Guidelines, pre-standards (NIBS)
- Fire safety design and retrofit of structures - Guidelines and pre-standards (ASCE 29-99 w/SFPE, FRS/UK, CTICM/FR, …)
- Fire protective systems for structural steel - performance criteria and tests for innovative systems. (CERF)
- Methodology for fire resistance determination - improved test/measurement methods (FORUM, China/Taiwan, Aust., NZ, Japan…)
- Fire simulation tools - enhancements to FDS and Smokeview
- Emergency use of elevators - revisions to ASME standard 17. (ASME, Industry group)
- Occupant behavior and egress - ?
- Equipment standards for first responders - (being defined in cooperation with IAFC, industry)
- Standard building information models - ?
- Cost-effectiveness tool for management of terrorist risks - (being coordinated with DHS and ASME efforts; Wharton)
Implementation Assistance Contract (Pending)

Task 1. Develop candidate strategies for each potential “product.” (1-2 months)

Task 2. Establish initial liaison teams and action plans. (3-5 months)

Task 3. Sponsor workshops, round table discussions, etc., as required to aid implementation of action plans. (through FY’08)
Other DTAP Activities

• Construction Industry Institute, CII Contract - Integrate Infrastructure Security Provisions into CII “Best Practices”

• National Conference of States on Building Codes and Standards, NCSBCS Contract - NYC Summit meeting to produce Draft procurement specification for interoperability; and related IT integration, and critical building information activities.

• FIATECH Contract - Address Infrastructure Security Issues in Capital Projects Industry Roadmap