Improving Fire Protection System Performance

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Quality Fire Protection
New v. Existing

• What code is/was used?
• What materials were permitted?
• What fire safety provisions were implemented?
Impeding Quality Fire Protection

• Design/Install
  – Errors or omissions during the initial design and installation phase
  – Enforcement of codes, standards or plan corrections not implemented
Impeding Quality Fire Protection (continued)

• Scenario Modifications
  – Changes made to arrangements
    • Partition Walls
    • Storage racks, aisles, and/or heights
  – Alter use of spaces
  – Commodity changes
Stakeholders

- Owners
- Engineers
- Technicians
- Manufacturers
- Installers
- Authorities Having Jurisdiction
- Insurers
How do you care for what you do not know needs care?
Owner Responsibility

• How can the design be amended or corrected without a periodic review?
Owner Responsibility

• Who to call for what?
• What resources do owner’s have available to them?
Caring for Existing Systems

- **Equipment**
  - Types of Systems
  - Age
- **Condition**
  - Life time care
- **Holistic Approach**
System Functionality

- Wear-and-Tear
- Corrosion
- Tampering
Existing System Design/Install

- Appropriate Designs and Applications
- Quality Installation
Specify Type of System

Fire Protection

- Active
  - Fire Alarm Systems
  - Water-Based Systems
  - Foam Systems
- Passive
  - Gaseous Systems
  - Other Agents

Other Agents
SFPE Whitepaper

SOCIETY OF FIRE PROTECTION ENGINEERS (SFPE)
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS (NSPE)
NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET)

POSITION STATEMENT

THE ENGINEER AND THE ENGINEERING TECHNICIAN
DESIGNING FIRE PROTECTION SYSTEMS

July 28, 2008

Approved By:
NICET Board of Governors
NSPE Board of Directors
SFPE Board of Directors
Current Scenario Conditions

- **Use/Risk Category**
  - Occupancy
  - Function

- **Hazards**
  - Use
  - Materials
  - Commodities
Fire Protection and Security Systems

- Coordination
- Harmonize upgrades
Resiliency

• Coordination of features
  – Water collection
  – Green roofs
  – Building materials
  – Tightness of construction

• Systems can work together
Alliances

• Holistic approach to fire protection
• More than 100 organizations related to fire protection
• All protection methods need to be maintain properly over the life of the building/space
SFPE Project to Improve Existing Systems

- Active and Passive Fire Protection Representation
- Contractors and Engineers
- Manufacturers
- Owners
- Authorities Having Jurisdiction
SFPE Project to Improve Existing Systems

• Moving forward with:
  – Owner’s informational whitepaper
  – Educational programs for owner’s audience
Thank you!

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