New Directions in Industrial Base Critical Infrastructure Protection: Reconciling Protection and Resiliency

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NRC REQUIREMENTS AND INDUSTRY PROGRAMS ARE PREDICATED ON THE NEED TO PROTECT THE PUBLIC FROM THE POSSIBILITY OF EXPOSURE TO RADIOACTIVE RELEASE CAUSED BY ACTS OF SABOTAGE BY THE DESIGN BASIS THREAT
Design Basis Threat

- Several well trained dedicated adversaries
- Determined violent assault
- Hand held automatic weapons with silencers and with long range accuracy
- Insider assistance
- Incapacitating agents
- Explosives
- Vehicle bombs
- Vehicles as means of entry
- Cyber attacks
Concentric Circles of Security

Owner-Controlled Area

Protected Area
Double Fence

Protected Area

Vital Area

Access Control Points
Multiple Layers of Protection in a Robust Physical Structure

- Containment Vessel: 1.5-inch thick steel
- Shield Building Wall: 3 foot thick reinforced concrete
- Dry Well Wall: 5 foot thick reinforced concrete
- Bio Shield: 4 foot thick leaded concrete with 1.5-inch thick steel lining inside and out
- Reactor Vessel: 4 to 8 inches thick steel
- Reactor Fuel
- Weir Wall: 1.5 foot thick concrete
Comparative Size of Targets

- **WTC**
  - 208’ wide
  - 1,353’ tall

- **Pentagon**
  - 1,489’ wide (921’ per side)
  - 71’ tall

- **Spent Fuel Pool**
  - 80’ wide
  - 40’ tall

- **Containment Building**
  - 130’ wide
  - 160’ tall

- **Fuel Storage containers**
  - 10’ wide
  - 20’ tall
Preparedness

- A 60% increase in number of officers
- Expenditures in excess of $1.2 billion
- Additional protection against vehicle and waterborne bombs
- Improved operational readiness
Preparedness

- Added and upgraded armament
- Revised Security and Emergency Plans
- Enhanced officer training
- Coordination with state and local officials
- Enhanced mitigation strategies for catastrophic events
Nuclear Sector Coordinating Council

- Represents nuclear sector to federal government agencies
- Corresponding Government Council – DHS, NRC, DOE, FBI
- Establishes “Seat at the Table” for Security and Homeland Defense Issues
Initiatives

- Risk Analysis and Management for Critical Asset Protection
- Comprehensive Reviews
- Post attack communications
- Routine threat briefings
- Pandemic Influenza preparation
Conclusions

- Nuclear power plants are the most secure industrial facilities in the National infrastructure.
- Industry has been extremely responsive and has significantly improved its ability to prepare for a significant terrorist attack.
- Partnering through DHS is the way to integrate and leverage onsite and offsite resources in a meaningful and cooperative way.