

NUCLEAR SECURITY: CHALLENGES FOR TODAY AND TOMORROW

Presented by

Dr. Richard A. Meserve
President, Carnegie Institution of
Washington

Dr. Richard A. Meserve, President
Carnegie Institution of Washington
1530 P Street, NW
Washington, D.C. 20005
(202)387-6404; Fax (202) 462-7395
rmeserve@pst.ciw.edu

BASIC ELEMENTS OF REGULATORY REQUIREMENTS FOR NUCLEAR POWER PLANT SECURITY

- Nuclear power plant licensees required to meet regulatory guidelines in 10 CFR Part 73
- Limits on licensee requirements are defined by “Design Basis Threat” (DBT)

DESIGN BASIS THREAT

- DBT defines characteristics and capabilities of a “violent external assault, attack by stealth, or deceptive actions” of a group of attackers
- Specific details that relate to each general element are classified

ELEMENTS OF DBT

- Well-trained and dedicated individuals
- Inside assistance from a knowledgeable person
- Hand-held automatic weapons, with long-range accuracy
- Hand-carried equipment to facilitate mission
- Four-wheel-drive vehicle for transporting attackers
- Vehicle bomb

NRC OVERSIGHT OF NUCLEAR POWER PLANT SECURITY (PRE-9/11)

- **Licensee security plans reviewed**
- **Security and safeguards inspected regularly**
- **Operational Safeguards Response Evaluation (OSRE) exercises conducted periodically under NRC oversight, up to and including simulated “force-on-force” attacks**

NRC ACTIONS IMMEDIATELY AFTER 9/11

- **Over 30 safeguards and threat advisories issued to licensees to place them on highest security level**
- **NRC instituted a comprehensive re-evaluation of security requirements**
- **Coordination and cooperation with other key Federal agencies strengthened**

CONTINUING RESPONSE TO THREAT ENVIRONMENT

- **Orders issued to licensees to supplant advisories**
 - Established regulatory basis for new requirements
 - Requirements include increased posts and patrols, augmented security forces, increased vehicle standoff distances, tighter access controls, enhanced coordination with law enforcement and intelligence agencies
 - Tighter limitations on temporary unescorted access to vital areas in nuclear plants

CONTINUING RESPONSE TO THREAT ENVIRONMENT (cont'd)

- **Additional Orders may be issued as issues are identified that require rapid implementation by licensees**
- **NRC established Office of Nuclear Security and Incident Response (NSIR) to provide central agency focal point for security-related issues**

CONTINUING RESPONSE TO THREAT ENVIRONMENT (cont'd)

- NRC is conducting assessments of vulnerabilities of licensed facilities to various types of terrorist attacks and sabotage
- Revised DBT being implemented
- Beefed up inspection program

CONTINUING CHALLENGES

- **Need for Comprehensive/Balanced National Strategy**
 - Nuclear plants are currently the best-protected elements of U.S. critical infrastructure
 - Need risk-based allocation of defensive assets

Bush Administration Homeland Security Report Card

1. Improving Intelligence Gathering and Analysis.....	D
<i>Coordinating Inter_Agency Intelligence</i>	C-
<i>Integrating Terrorist Watch Lists.....</i>	F
<i>Developing Counterterrorism Database Systems</i>	D+
2. Improving Security at the State and Local Level.....	D-
<i>Completing a National Threat Assessment</i>	F
<i>Sharing Information with State and Local Governments</i>	D
<i>Defining the Role of State and Local Officials.....</i>	D
<i>Providing Financial Support for State and Local Governments.....</i>	D-
<i>Boosting Citizen Preparedness.....</i>	D+
3. Controlling the National Borders.....	D
<i>Tracking Entry and Exit of Foreign Visitors and Students.....</i>	D
<i>Improving the Identification System.....</i>	F
<i>Improving Visa Issuance and Consular Services.....</i>	D
<i>Securing Ports of Entry.....</i>	C
4. Protecting Critical Facilities.....	D+
<i>Enhancing Aviation Security.....</i>	C-
<i>Passenger Security.....</i>	B-
<i>Baggage Security.....</i>	C+
<i>Personnel Security.....</i>	D
<i>Air Cargo Security.....</i>	D-
<i>Securing Nuclear Plants and Materials.....</i>	C+
Nuclear Power Plant Security.....	A
<i>Nuclear Material Security.....</i>	D
<i>Securing Chemical Production and Storage Facilities.....</i>	D-
<i>Boosting Cybersecurity.....</i>	D+
5. Protecting Against Bioterror Attacks.....	C
<i>Developing Bioterrorism Countermeasures.....</i>	C-
<i>Expanding Health Care Surge Capacity.....</i>	C
<i>Updating Public Health Laws.....</i>	C
6. Defending Civil Liberties and Privacy.....	C-
<i>Detaining Suspected Terrorists.....</i>	C-
<i>Protecting Privacy.....</i>	C
7. Managing the Improvement of Homeland Security.....	D+
<i>Reorganizing the Federal Government.....</i>	C-
<i>Launching the Department of Homeland Security.....</i>	C
<i>Learning Lessons from Previous Attacks.....</i>	F
OVERALL.....	D

CONTINUING CHALLENGES (cont'd)

- **Need to define boundary between public and private responsibilities**
 - **Certain threats may exceed private defensive capabilities**
 - **Need for integrated strategy involving licensee, local, state, and federal assets**

CONTINUING CHALLENGES (cont'd)

- **Need to Revise Defensive Strategy**
 - Upgrade weapons
 - Authority to use deadly force
 - Recognize limitations of DBT approach
- **Need to maintain balance – security can not override other aspects of NRC's public health and safety mission**
- **Need to continue to improve coordination with other agencies in government**

CONTINUING CHALLENGES (cont'd)

- Need to consider requirements for new designs
- Need to achieve balance between openness and security
- Need to address abiding public concerns

CONCLUSION

- Nuclear Sector has significant defensive capability – far more than it is given credit for
- But there are continuing policy and substantive challenges