



Post 9/11 EP and Security Initiatives and other items of interest

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NRC structure

- Nuclear Regulatory Commission
 - 4 Commissioners & 1 Chairman
 - Appointed by the President

- Regulate to ensure the safe use of radioactive materials

Safety and Security

- The NRC requires that nuclear power plants be both **safe** and **secure**.
- **Safety** refers to operating the plant in a manner that protects the public and the environment.
- **Security** refers to protecting the plant—using people, equipment and fortifications—from intruders who wish to damage or destroy it in order to harm people and the environment.





Solid Foundation for Safety

- Plant designs requiring independent back-up systems for all critical safety features
- Sturdy construction of plants (multiple barriers)
- Extensive training for all staff
- Comprehensive operational procedures
- Inspections-daily, scheduled or unannounced
- Emergency plans include State/local decisionmakers



So what else keeps us safe?

It's the **PHYSICS...**

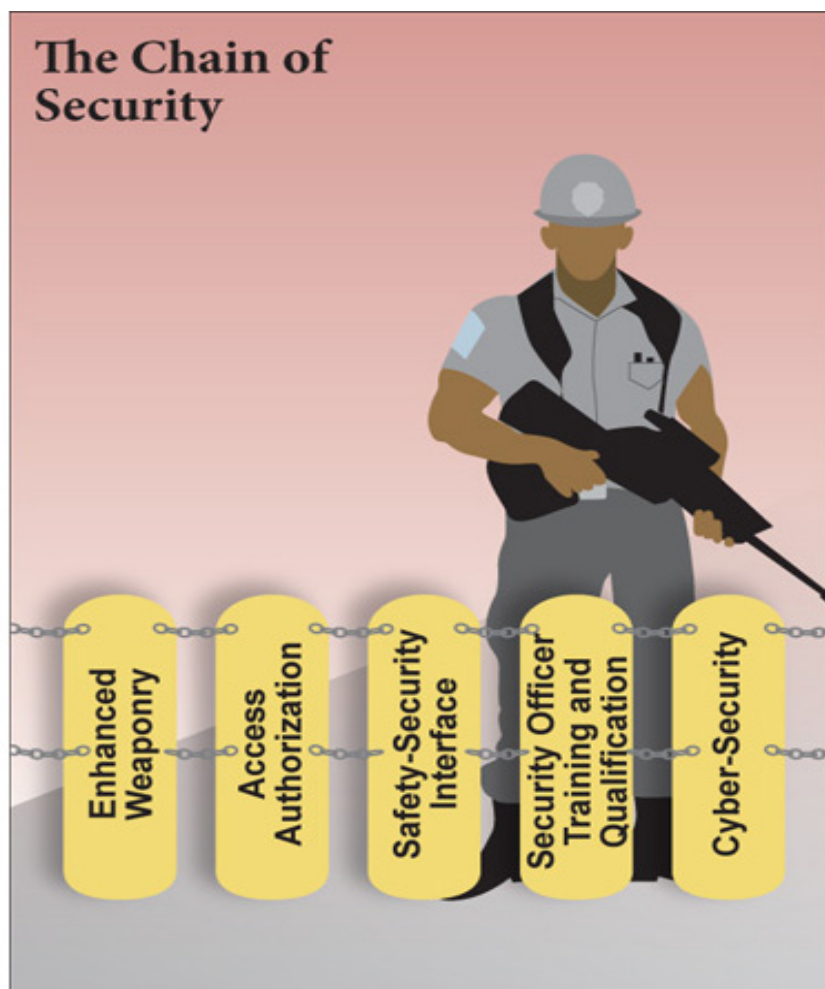
- While the initial events might vary, *accident progression* doesn't change
- Physics still rules
- Multiple barriers
- EP Planning Basis is still valid



From the beginning....

- Emergency Preparedness has always been an integral part of the Licensing requirements
- Drill and Exercise program in conjunction with FEMA
- Security, Fitness for Duty, etc

Security



To ensure nuclear plants are safe, the NRC requires:

- Well-armed and well-trained security forces
- Surveillance and perimeter patrols
- State-of-the-art site access equipment and controls
- Physical barriers and detection zones
- Intrusion detection systems and alarm stations



Layers of Defense

- **Defending against adversaries**
- **Protecting against aircraft attack**
- **Securing materials**
- **Strengthening Regulation**

Defending Against Adversaries



- **Multiple layers of Security**
 - access controls,
 - water barriers,
 - intrusion detection
 - strategically placed guard towers.
- **Design Basis Threat –**
(usually called the DBT)

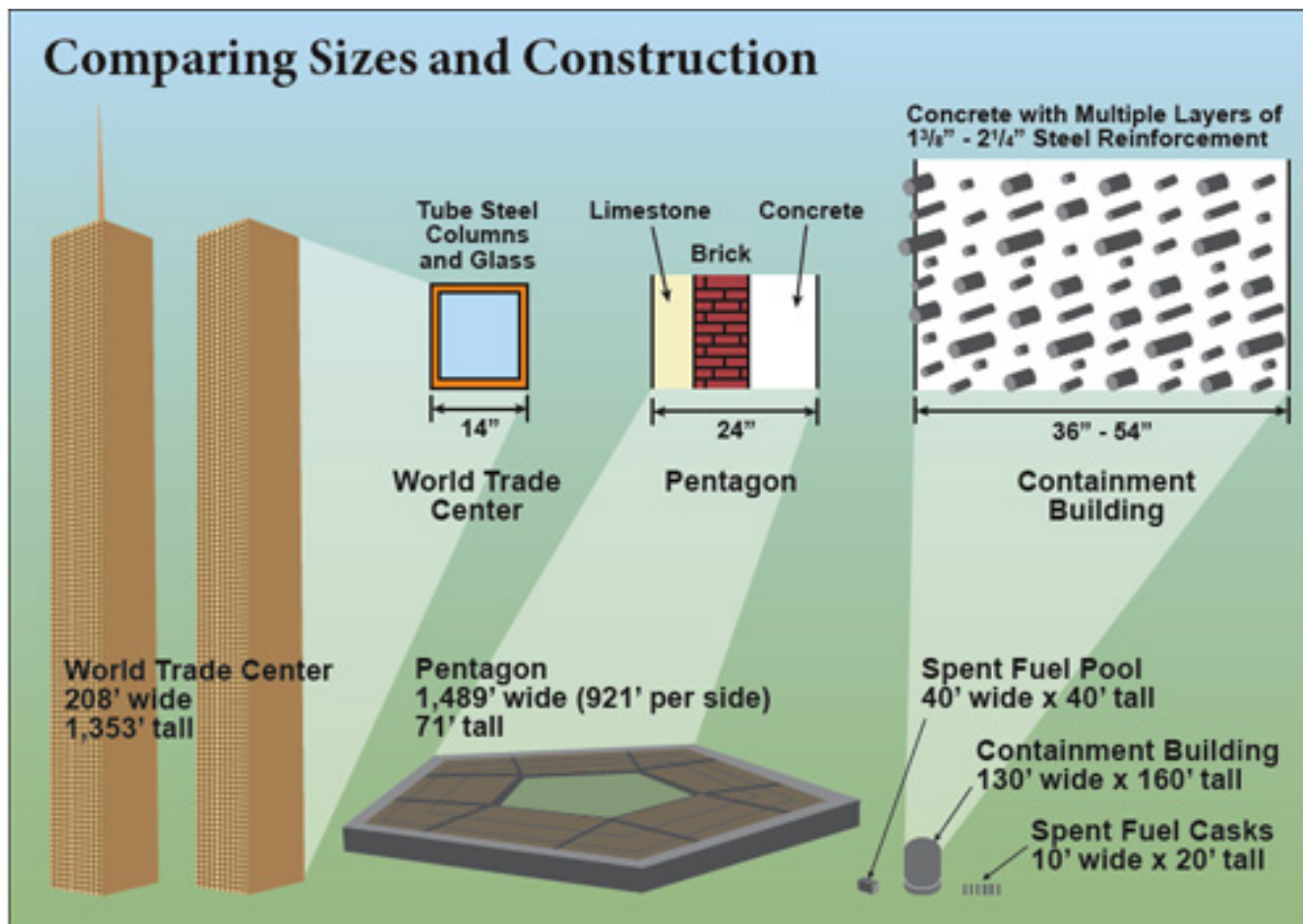
developed from real-world intelligence information and describes the adversary force – coming from both ground and water – the plants must defend against.

Force on Force Exercises

- Realistic tests of Plant Security
- Held every 3 years
- Goal is try to reach/damage key safety systems
 - Composite Adversary Force (CAF) trained to NRC standards



Defending against Aircraft





Security in the Post 9/11 World

NRC required Licensees to take **IMMEDIATE** actions:

- *Interim Compensatory Measures (ICMs)*
 - Perform plant design studies
 - Add additional Officers on shift (site specific)
 - Enhance physical protection features
 - Increased training
 - Increased frequency of Security Evaluations



Additional Post 9/11 Activities

- Federal Agency Coordination
- National Response Plan
- Review of the Design Basis Threat for Nuclear Power Plants
- Force on Force Exercises
- Comprehensive Reviews
- Review of the NRC's and DHS's Radiological EP Planning Basis



Studying the Facts

- Shortly after 9/11, the NRC began a security and engineering review of operating nuclear power plants.
- Assisted by national experts from Department of Energy laboratories, who used state-of-the-art experiments, and structural and fire analyses
- Results revealed no notable increase in risks to public health and safety



Additional Post 9/11 Changes

We looked for **internal** improvements

- Created Office of Nuclear Security Incident Response (NSIR)
- Coordinate NRC activities to protect public health and safety
 - Emergency Preparedness
 - Incident Response
 - Security
- NRC nuclear security budget increased 10X



Role and Mission of NSIR

- **Mission:** To prevent nuclear security incidents and respond to safety and security events
- **Vision:** To be a valued partner in homeland security and Federal emergency response



NRC Bulletin 2005-02

- Licensees were requested to provide information on 5 onsite program areas:
 - Security-Based Emergency Classification Levels (ECL) & Emergency Action Levels (EAL)
 - Accelerated Notifications to NRC
 - Onsite Protective Measures
 - Emergency Response Organization (ERO) Augmentation
 - Security-Event Based Drills and Exercises



Continuous Improvement

Working in partnership with FEMA to:

- Expand our Drill/Exercise program to include a wide spectrum of scenarios (including security based events)
 - Goal of “realistic and challenging scenarios”
- Update our EP Regulations



Many Stakeholders

- In addition to FEMA, the NRC works with many other agencies and organizations including:
 - Department of Homeland Security
 - Department of Energy
 - Environmental Protection Agency
 - Federal Bureau of Investigation
 - Department of Health and Human Services
 - Congress
 - International Atomic Energy Agency
 - State, local and Tribal governments



Other NRC Initiatives

- Public alerting and notification
- New reactor licensing
- Offsite protective action recommendation (PAR) study
- State of the Art Consequence Analysis (SOAR)
- Pandemic Preparation
- Natural disaster response & recovery



We're here to support...

- Optimize outreach
- Develop and share Outreach tools
- Coordinate with other organizations
- Make presentations or participate in Drills/Exercises per request and availability



In Summary

- While Security and EP were strong **PRIOR** to 9/11, enhancements were made to address unique challenges
- Critical partnerships w/stakeholders
- EP Planning Basis remains valid in the Post 9/11 World



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