



Protecting People and the Environment

“Ask SME and Learn” NRC Cyber Security Regulatory Program Development

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Agenda

- **Background**
 - What is Cyber Security? (General public's perspective)
- **NRC Cyber Security Program Development**
 - First NRC Orders issued to address the emergent cyber threat
 - Early NRC Guidance issued to conduct a cyber security self-assessment at nuclear power plants (NPPs)
 - Industry's initiative to implement an interim Cyber Security Program for NPPs
 - Current NRC Regulations which require implementation of a comprehensive cyber security program

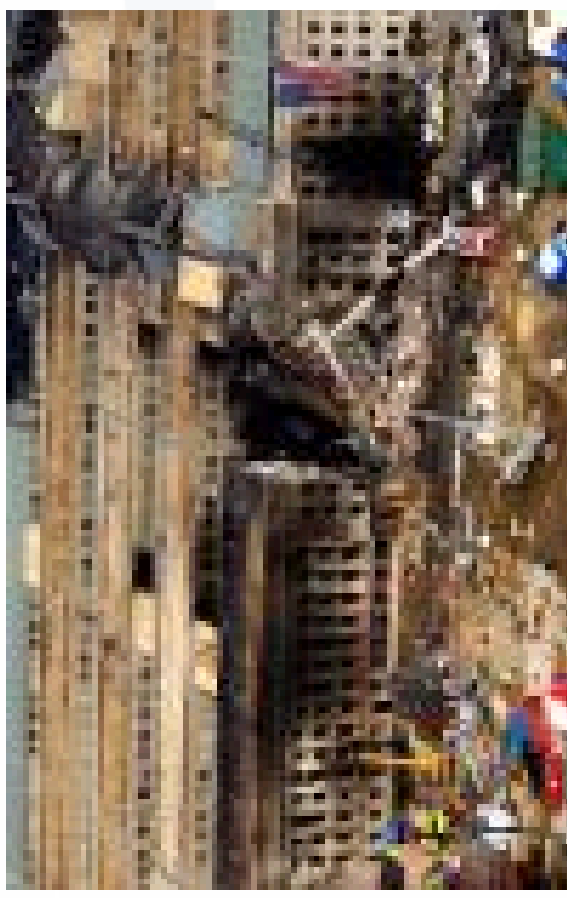
- **Questions**

Background

What is Cyber Security? (General public's perspective)

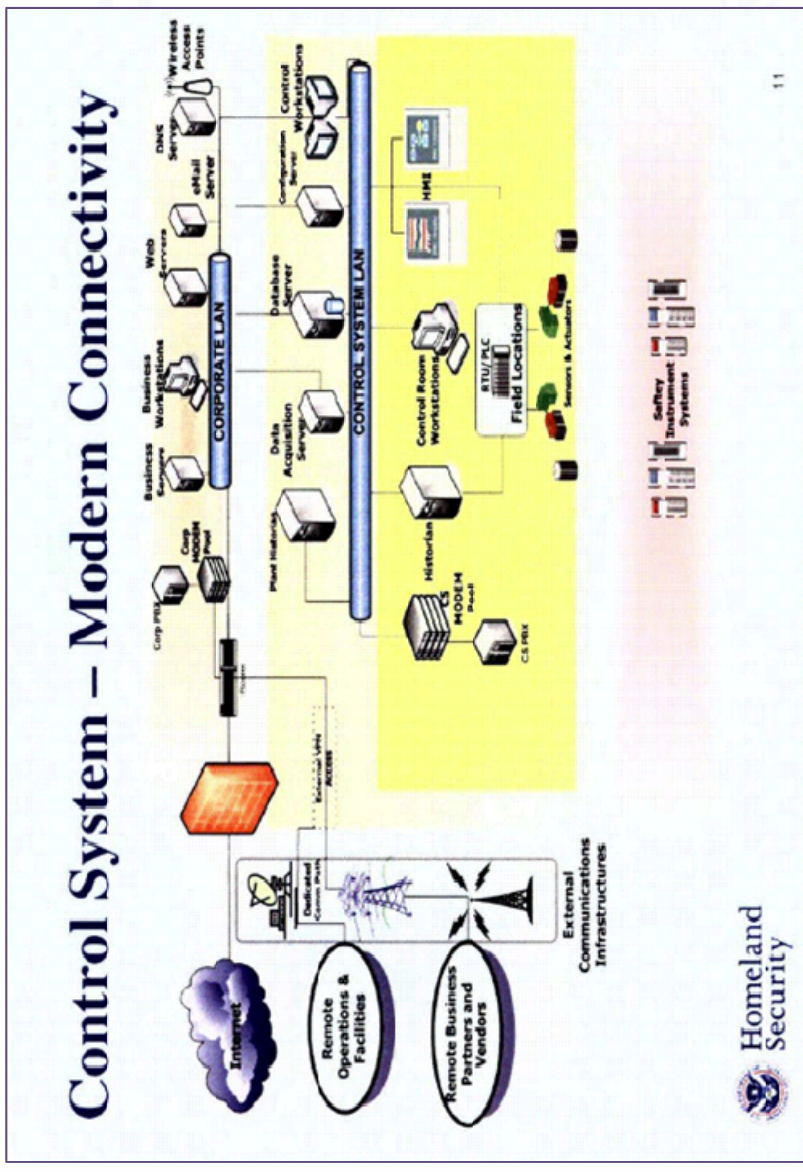
- Protection of data & systems in networks which may or may not be connected to the Internet
- Measures taken to protect a computer system against unauthorized access or attack
- The protection of information against unauthorized disclosure, transfer, modification, or destruction, whether accidental or intentional
- The branch of security responsible for the protection of computer systems and networks.

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- **NRC Order EA-02-026, “Interim Safeguards and Security Compensatory Measures for Nuclear Power Plants,” Feb 2002**
- **EA-03-086, “Design Basis Threat for Radiological Sabotage,” in Apr 2003**

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NEI 03-12, “Security, Training & Qualification, & Safeguards Contingency Plan Template,” (2004)



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- NUREG/CR-6847 “**Cyber Security Self-Assessment Method for U.S. Nuclear Power Plants,**” (Nov 2004) superseded
- NEI 04-04, “**Cyber Security Program for Power Reactors,**” (Nov 2005) (At this time the NRC had not yet proposed comprehensive cyber security regulations) superseded
- NRC performs site reviews to evaluate implementation of NEI 04-04 (2005 – 2007)
- 10 CFR 73.1 Cyber Attack is included **Design Basis Threat (DBT) Rule** (2007)
- 10 CFR 73.54 “**Protection of Digital Computer and Communication Systems and Networks**” (Mar 2009)

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10 CFR 73.54 “Protection of Digital Computer and Communication Systems and Networks” (Mar 2009)

Protection (**high assurance**) of digital computer & communication systems associated with:

- I. Safety-related and important-to-safety functions;
- II. Security functions;
- III. Emergency preparedness functions, including offsite communications; **AND**
- IV. Support systems and equipment which, if compromised, would adversely impact safety, security, or emergency preparedness (SSEP) functions.



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Cyber Security Regulatory Perspective

Cyber Security

- Those measures and controls, implemented to comply with 10 CFR 73.54, to protect digital systems against the malicious acts of an intelligent adversary up to and including the design basis threat (cyber attack), as defined by 10 CFR 73.1

Cyber Threat

- An individual, entity, or action that by cyber-means has or indicates the potential to harm life, information, operations, the environment and/or property



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NRC Cyber Security Regulatory Perspective

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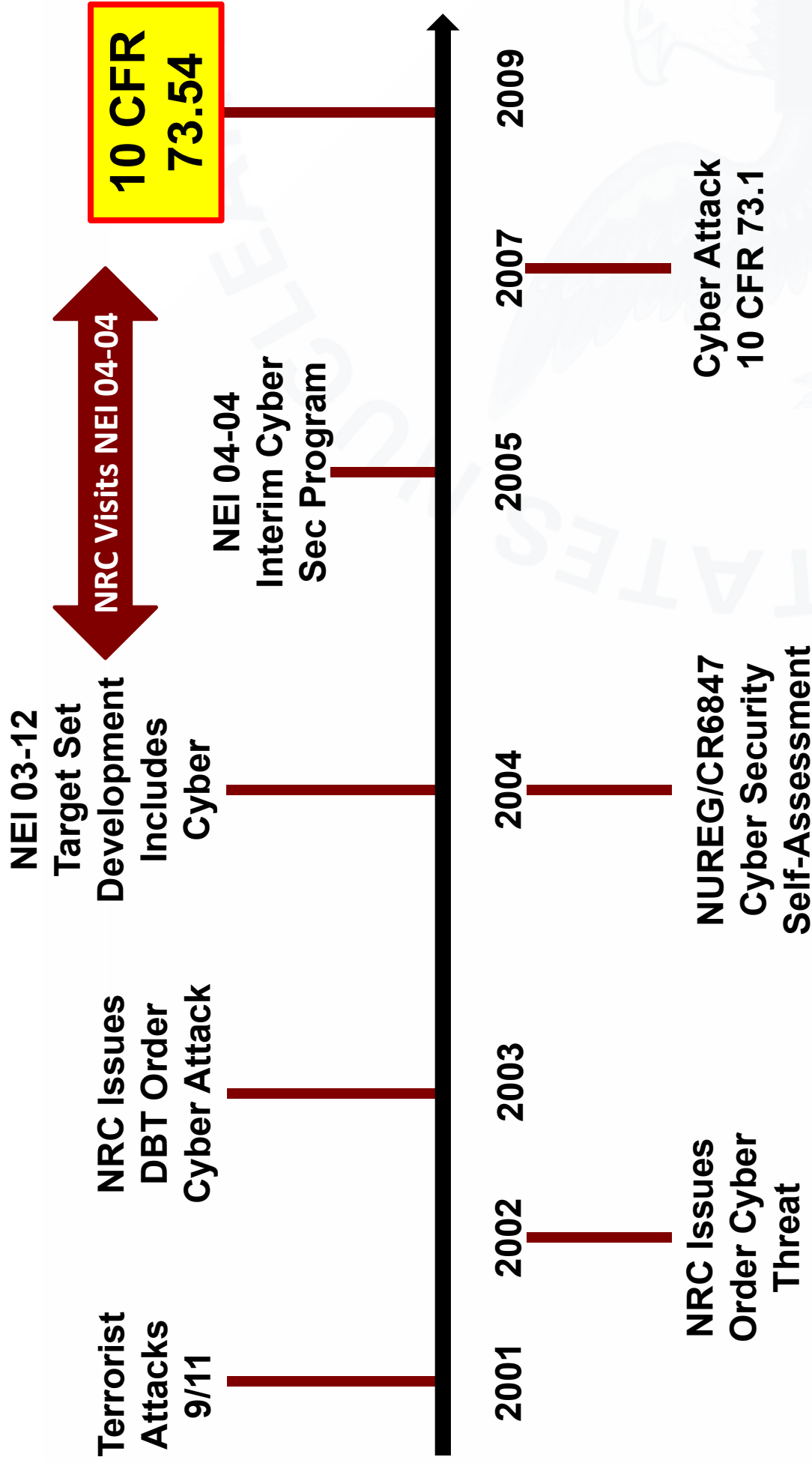
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Cyber Security: General Public's Perspective

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Summary





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Questions

