An NRC Commissioner's Perspective on Cyber Security Regulation

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United States Nuclear Regulatory Commission

State Liaison Officers Conference
Rockville, MD
October 27, 2015

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Key Principles

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- NRC Oversight Role as Regulator
- Engagement with Stakeholders
  - Inter-Agency
  - Public
  - Industry
- Risk-Informed Approach

U.S. Inter-Agency Cooperation on Cyber Security

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NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

NIST

NRC Requirements

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March 2009 Cyber Security Rule (10 CFR 73.54) – Requires that nuclear power plant licensees:

- "Provide high assurance that digital computer and communication systems and networks are adequately protected against cyber attacks . . ."

- "Establish, implement, and maintain a cyber security program" to protect critical digital assets (CDAs).

Scope of 10 CFR 73.54

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- **S**afety-related and important-to-safety functions,
- **S**ecurity functions,
- **E**mergency **P**reparedness functions, including offsite communications, and
- Support systems and equipment important to safety and security.

Critical Digital Assets

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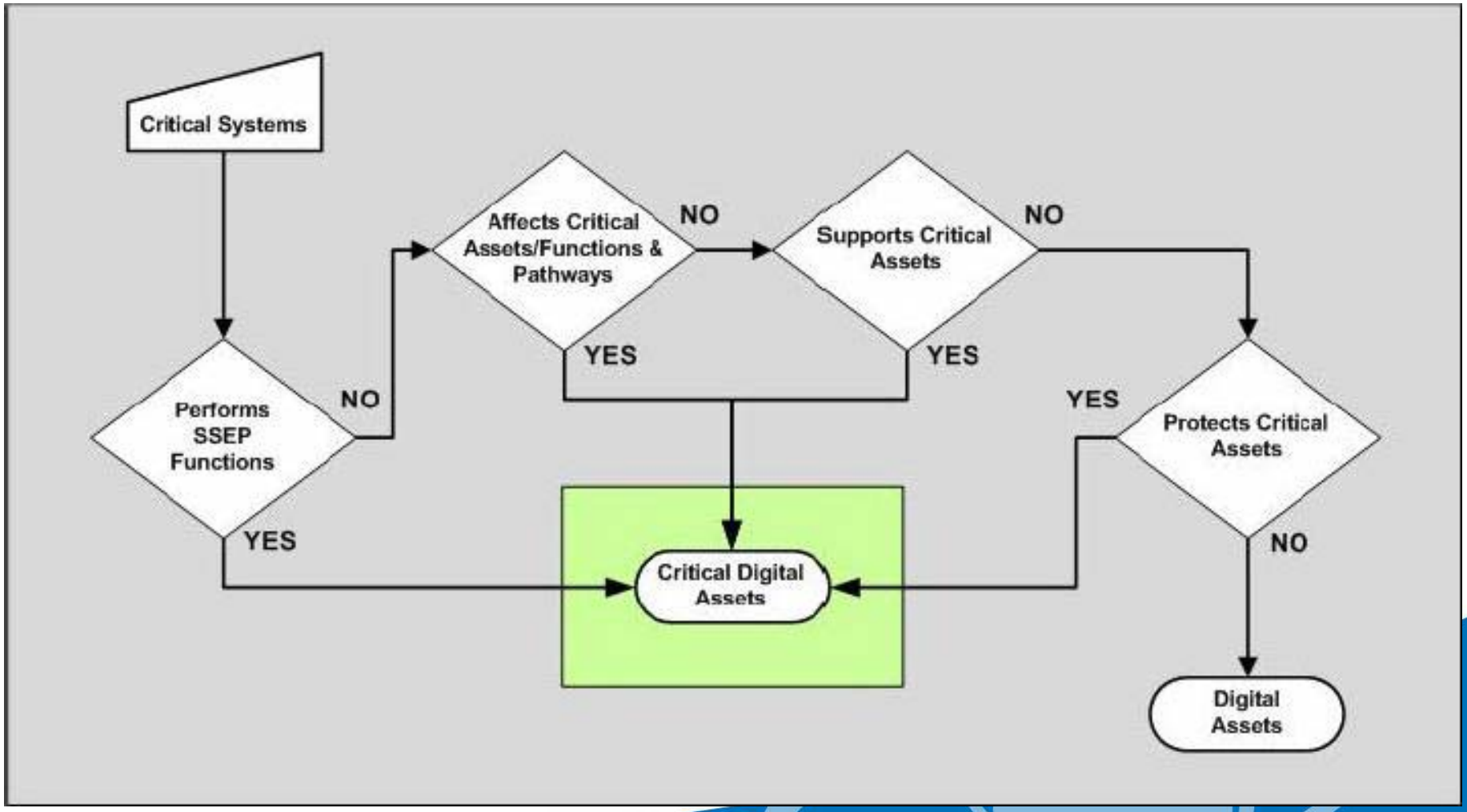

Phased Implementation

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Interim Milestones 1-7 (completed in 2012)

- Cyber Security Plans
- Addresses key threat vectors

Milestone 8 (site-specific implementation dates through 2017)

- Full cyber security program implementation
- Procedures and training

Milestones 1-7

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1) Establish Cyber Security Assessment Team
2) Identify Critical Digital Assets
3) Incorporate Isolation features
4) Control portable and mobile devices
5) Enhance insider mitigation
6) Establish security controls for target set CDAs
7) Monitor and assess security controls

NRC Oversight

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- Inspections of Milestones 1-7 planned for completion in 2015
- Inspections of Milestone 8 will begin in 2016

Consequence-Based Approach

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- Graded approach
  - Focus NRC and licensee resources on most significant issues
  - Direct vs. Indirect CDAs

Consequence-Based Approach (continued)

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- Grouping of CDAs
- Precludes need for each licensee to analyze common device types
- NRC developing templates and examples for efficiency and consistent implementation

Cyber Security at Fuel Cycle Facilities

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- Currently, Fuel Cycle Facilities are under an Order addressing Additional Security Measures, including cyber security
- Gap analysis between orders and the need for rulemaking
- Commission directed rulemaking

What's Next?

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- NRC continues to make significant progress
- Cyber Security will always be a challenge
- Stakeholder coordination essential
- Situational awareness