

# Cyber Security – Industry Experiences

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NUCLEAR  
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# Regulatory Documents

- **Interim Compensatory Measures (2002)**
- **NUREG/CR-6847 (2003)**
- **Design Basis Threat Order (2003)**
- **NEI 03-12 Section 18 (2004)**
- **NEI 04-04 (2005)**
- **10 CFR 73.1 Design Basis Threat Rule (2007)**
  - **RG 5.69**
- **10 CFR 73.54 Cyber Security Rule (2009)**
  - **DG-5022 / RG 5.71**



# Licensing History

- **Cyber Security Rule effective May 26, 2009**
- **Submittal required by November 23, 2009**
- **Industry expected regulatory guidance in-place in early 2009 (RG 5.71 was issued January 2010)**
- **NEI 08-09, Revision 0 submitted for NRC endorsement March 9, 2009**
- **Subsequently revised based on NRC comments and several meetings**

## NEI 08-09

- **In July 2009, NRC indicated that NIST Digital Security Controls should be part of the Plan**
- **Industry/NRC iterations on NEI 08-09**
  - **Revision 2 was submitted on August 3**
  - **Revision 3 was submitted September 15**
  - **NEI regularly meeting with NRC staff to reach closure**

# Licensee Actions

- **Plants are using NEI 08-09, Revision 3**
- **NEI 08-09 provides**
  - **Plan template w/limited bracketed text,**
  - **Two appendices of security controls,**
  - **Glossary of terms,**
  - **Model application, and**
  - **Model implementation schedule**
- **NEI 08-09 exceeds the requirements of the Rule**
- **Includes guidance not seen in early versions of RG 5.71**
  - **Reporting guidance**
  - **Model Implementation Schedule**
  - **Model Application (including changes to the FOL)**



# Licensee Actions

- **Licensee action is submission of Plan and Implementation Schedule**
  - **Implementation schedule is not a part of Plan**
- **Following NRC endorsement of Revision 3 or resolution of issues, licensees will supplement initial submittals**

# Post-Submittal Licensing Expectations

- **The NRC should clearly state the regulatory finding that is to be made**
- **ONRR Office Instruction LIC-101 should be used**
- **ONRR Acceptance Review Process (LIC-109) should have minimal impact**
- **Technical meetings, onsite audits should be used to facilitate timely staff review of the Plan**

# Post-Submittal Licensing Expectations

- **Staff review should be focused on site/  
licensee specific material:**
  - **Defensive Strategy**
  - **Implementation Schedule**
  - **Other bracketed text items**
- **Staff review and SE should be complete  
within 6 – 12 months from submittal**
- **Review/approval process should be  
consistent across all submittals**



# Defensive Strategy

- **May be either site-specific or fleet-wide**
- **Needs to address all critical digital assets**
- **Bracketed text in NEI 08-09 provides points to consider**

## List of Systems in Scope of the Rule

- **NEI 08-09 previously contained a template for listing systems in scope**
- **A list of systems is recommended to be part of the Plan but not required**
- **Most if not all plants will be referring to lists maintained onsite**

# Implementation Schedule

- **Considered to be commitments**
- **Schedule should be based on detailed project plan established and maintained in-house**
- **Scope of work to implement Cyber Security Plan is uncertain at this time**
  - **Scope of systems has not been endorsed**
- **Implementation Schedule considers this uncertainty**
- **To further reduce risk and uncertainty, completion dates are linked to NRC approval of the submitted Plan**

# Reportability

- **Clear guidance on what constitutes a Cyber Attack needs to be established to fully implement incident response and recovery procedures**
- **NEI 08-09 provides guidance to differentiate between a Cyber Incident (non-reportable) and a Cyber Attack (reportable)**

## FERC Order 706-B

- **BOP systems must comply with NERC CIPs**
  - **NERC CIPS are Cyber Security Standards**
- **NERC - develop schedule for compliance**
  - **Industry participated - happy with outcome**
  - **FERC reviewing schedule**
  - **Schedule “begin work” contingent on FERC approval, exemption process establishment**
- **NERC established MOU with NRC**

# Outlook for 2010

- **Finalization of cyber security plans**
- **Firm establishment of scope of systems between NRC and FERC**
- **Continued cyber program development for compliance w/ NRC and FERC Order 706-B**
- **Participation in NRC development of inspection materials and procedures**
- **Continued engagement of federal partners in DHS, FBI, and ODNI**

Questions?