FERC’s
Hydropower Security Program

The New Security Branch in 2020
Objectives

• Origin of the FERC-D2SI Security Branch
• Security Branch Expertise
• FY2020 Inspection Season
  o Preparing for the Inspections
  o Common Findings
• Current Work
• Takeaways
Objective 2.2: Minimize risks to the public associated with FERC-jurisdictional energy infrastructure.

The Natural Gas Act and the Federal Power Act, among other statutory authorities, charge FERC with ensuring that energy infrastructure, once authorized, continues to operate safely and reliably. Failure of LNG or hydropower infrastructure due to structural issues, unsafe operations, natural disasters, cyber and physical attacks, or other hazards can result in loss of life as well as environmental and economic consequences.

In addition, the Energy Policy Act of 2005 amended the Federal Power Act to give FERC authority with respect to reliability standards for the bulk power system and oversight of an Electric Reliability Organization (ERO). In fulfilling these responsibilities, it is critical that FERC minimize risks to the public associated with FERC-jurisdictional energy infrastructure.

FERC achieves this objective through a range of activities. FERC conducts timely safety reviews and inspections with rigorous requirements, thereby advancing the safety of non-federal hydropower projects and LNG facilities throughout their entire life cycle. FERC also oversees the development and review of mandatory reliability and security standards for the bulk power system, as well as compliance with these standards. In addition, FERC collaborates with regulated entities and other federal and state governmental agencies to identify and seek solutions to cyber and physical threats to FERC-jurisdictional infrastructure, facilitating proactive efforts that prevent or mitigate loss or damage.
d) FERC engineers should concentrate on Dam Safety issues and proper review of auxiliary/ancillary structures. This could be accomplished by creating a separate FERC division solely responsible for security aspects and other non-dam safety issues.
"…creation of a new security-focused group within the Office of Energy Projects’ Division of Dam Safety and Inspections.”
Branch Expertise

- 5 Physical Security Specialists
- 4 Cyber Security Specialists
- 1 Branch Chief
- Branch out of HQ
  - 6 in DC
  - 2 in Atlanta
  - 2 in Chicago
FY20 Inspection Season

• Dam Safety Engineers will not assess security

• Security Branch will:
  – Group Inspect for OJT
  – Team inspect to cover physical & cyber
  – Individual or team inspect with cyber call-ahead
  – Inspect/regulate nationwide
FY20 Inspection Season

Security Branch will:

- NOT have new requirements
- Ask for details within the checklists
- Ask for details on NERC regulated projects
- Complete new DAMSVR ahead of the inspection
FY20 Inspection Season

- Security Branch will learn:
  - Length of an inspection
  - Duration of a cyber review
  - Whether Cyber Assets & designations are correct
  - The number of NERC-CIP assets
  - Common gaps within cyber-security program
  - How effective pre-visit cyber review can be
  - Of any resources we haven’t thought of
FY20 Inspection Season

• Licensees/Exemptees should:
  – Continue updating documents in compliance with Rev. 3A
  – Have security staff available for security inspections
  – Continue to report security incidents
  – Maintain an acceptable level of physical and cyber security
FY20 Inspection Season

- Inspections focused on:
  - Dams without a Special Security Inspection
  - Group 1 and 2 dams, (Interconnected Group 3 dams)
  - Projects in the same vicinity
  - Thinking about long term inspection frequency
  - About 130 dams this year
Preparing for the Inspections

All Group 1 and 2s:

- Complete Physical Security Checklists and provide a copy
- Complete Cyber SCADA Checklist
- Provide cyber asset spreadsheet
- Have most recent VA, SA, SP, IERRR, Cyber Security Checklist available for review
- Provide a copy of the Annual Certification letter to FERC Security Specialist.
Preparing for the Inspections

- Cyber Security Checklist completed
  - Identify any cyber assets
  - Include all rationale for justifications
  - Assess gaps
    - “Enhanced” or “Baseline” measures implemented
- NERC/D2SI assets - show CIP documentation (NERC audit results)
Preparing for the Inspections

Cyber Asset Designation & Requirement Flowchart

- **Group 1** and **Group 2** dam

  Asset (e.g. gate, low level outlet, powerhouse, etc.)

  Operated remotely or with automated operations (e.g. SCADA)

  Can compromise cause dam failure, release of water, or lost generation?

  Yes

  “Critical” cyber asset

  “Critical” cyber asset

  Are consequences above the thresholds (see above)?

  Yes

  “Critical” cyber asset

  “Critical” cyber asset

  enhanced measures

  checklist

  baseline measures

  checklist

  baseline measures

  reassess annually or if conditions changes

- Interconnected Group 3 dam assets must adhere to the most critical connected cyber asset designation requirements
Common Findings

- Adequate Expertise/Staff during the inspections
- Documents are outdated.
- Documents are descriptive not prescriptive.
- Security Documents (SP, VA/SA, IERRR) should be labeled as:
  - Header: CUI/CEII/PRIV
  - Footer: Security Sensitive Material
- Cybersecurity Documents should be labeled as:
  - Header: CUI/CEII/ISVI/PRIV
  - Footer: Security Sensitive Material
- No E-file
- Compliance Certification
Current Work

• Training for all Branch Members
• Reviewing all FY19 Security Certifications
• Compiling & analyzing all checklist data
• QA/QC all cyber asset designation data
Current Work

- Technical guidance for joint jurisdictional assets
- Determine extent of NERC-CIP assets
- Assess level of protection of Low Impact Hydro assets
- Investigate design based criteria for physical security
- Investigate how cyber criteria can be more prescriptive
Takeaways

- NO NEW Security RQTs for FY2020
- Dam Safety Engineers will not assess security
- Physical & Cyber Specialists in-house
- Security Branch Webinar in April 2020
Questions

FERC Security Program for Hydropower Projects

https://www.ferc.gov/industries/hydropower/safety/guidelines/security.asp