

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Physical Security Reliability Standard

Industry Webinar
April 17, 2014

RELIABILITY | ACCOUNTABILITY



- NERC Antitrust Compliance Guidelines and Public Announcement
- Introductions and Opening Remarks
- Review webinar objectives
- Standard Overview
- Q & A from previous webinar
- Review action plan and milestones

- It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition. It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.
- Participants are reminded that this meeting is public. Notice of the meeting was posted on the NERC website and widely distributed. Participants should keep in mind that the audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.



Introductory Remarks

Name	Entity
Susan Ivey (Chair)	Exelon Corporation
Lou Oberski (Vice Chair)	Dominion
John Breckenridge	Kansas City Power & Light
Ross Johnson	Capital Power
Kathleen Judge	National Grid
Mike O'Neil	Florida Power & Light / NextEra, Inc.
Stephen Pelcher	Santee Cooper
John Pespisa	Southern California Edison
Robert Rhodes	Southwest Power Pool
Allan Wick	Tri-State Generation and Transmission
Manho Yeung	Pacific Gas and Electric Company

- Present information regarding the Physical Security Standard.
- Respond to questions and issues raised on the April 15th, 2014 webinar.
 - Stakeholders can ask questions using the chat feature.
- Encourage members of the ballot body to vote.
 - If you have registered in the ballot body, we need you to vote, and you must vote by the close of business on April 24, 2014. If you do not vote and quorum is not met on April 24, 2014, this will negatively impact the ability of the Standard Drafting Team (SDT) to expeditiously move forward.

Draft	Actions	Dates	Results	Consideration of Comments
<p>CIP-014-1</p> <p>Implementation Plan</p> <p>Supporting Materials:</p> <p>Project Overview</p> <p>FAQ</p> <p>Unofficial Comment Form (Word)</p> <p>Consideration of Issues and Directives</p> <p>Draft RSAW</p>	<p>Initial Ballot and Non-Binding Poll</p> <p>Info>></p> <p>Vote>></p>	<p>04/20/14 - 04/24/14</p>		
	<p>Comment Period</p> <p>Info>></p> <p>Submit Comments>></p>	<p>04/10/14 - 04/24/14</p>		
	<p>Join Ballot Pool>></p>	<p>04/10/14 - 04/19/14</p>		
	<p>Please send feedback on the draft RSAW to:</p> <p>RSAWfeedback@nerc.net</p>	<p>04/10/14 - 04/24/14</p>		

Project Page:

<http://www.nerc.com/pa/Stand/Pages/Project-2014-04-Physical-Security.aspx>



Draft CIP-014-1 - Physical Security

- “To identify and protect Transmission stations and Transmission substations, and their associated primary control centers, that if rendered inoperable or damaged as a result of a physical attack could result in widespread instability, uncontrolled separation, or Cascading within an Interconnection.”
- Drafted as Critical Infrastructure Protection (CIP) family of standards.

- The applicability of proposed CIP-014-1 starts with those Transmission Owners that own Transmission facilities that meet the bright line criteria in Reliability Standard CIP-002-5.1 for a “medium impact” rating.
- The SDT sought to ensure that entities could apply the same set of criteria to assist with identification of facilities under CIP Version 5 and proposed CIP-014-1.
- By application of the requirements, only certain Transmission Operators that are notified under the standard’s Requirement R3 have obligations under the standard.

- The first three requirements of CIP-014-1 require Transmission Owners to:
 - Perform risk assessments to identify those Transmission stations and Transmission substations that meet the “medium impact” criteria from CIP-002-5.1, and their associated primary control centers
 - Arrange for a third party verification (as directed in the order) of the identifications; and
 - Notify certain Transmission Operators of identified primary control centers that operationally control the identified and verified Transmission stations and Transmission substations.
 - The requirements provide the periodicity for satisfying these obligations. Only an entity that owns or operates one or more of the identified facilities has further obligations in Requirements R4 through R6. If an entity identifies a null set after applying Requirements R1 through R2, the rest of the standard does not apply.

- The final three requirements of CIP-014-1 require:
 - The evaluation of potential threats and vulnerabilities of a physical attack to the facilities identified and verified according to the earlier requirements,
 - The development and implementation of a security plan(s) designed in response to the evaluation, and
 - A third party review of the evaluation and security plan(s) (as directed in the order).

- Physical Security Order, Paragraph 10:
 - “...NERC should include in the Reliability Standards a procedure that will ensure confidential treatment of sensitive or confidential information but still allow for the Commission, NERC and the Regional Entities to review and inspect any information that is needed to ensure compliance with the Reliability Standards.”
 - Addressed in Requirement R2, Part 2.4 and Requirement R6, Part 6.4.
- CIP-014-1, Section 1.4. Additional Compliance Information
 - Confidentiality: To protect the confidentiality and sensitive nature of the evidence for demonstrating compliance with this standard, all evidence will be retained at the Transmission Owner’s and Transmission Operator’s facilities.

- Explain implementation timing.
- What about joint ownership of a facility?
- Explain the difference between Transmission "station" and "substation."
- Explain the verification/review processes in more detail.
- What type of organization can be the verifier/reviewer?

- Explain “unaffiliated.”
- What about conflicts of interest?
- What about disagreements of the reviewer in R6? Who has final approval?
- How does a non-disclosure agreement protect the information?
- What are the expectations with regard to threat warnings that materialize after the evaluation of potential threats and vulnerabilities is completed and verified?

- Draft standard posted for 15-day initial comment and 5-day ballot mid-April, 2014
 - Standards Committee authorized waiver
- Industry webinars during initial comment and ballot
- SDT meeting end of April, 2014
 - Review and respond to comments
 - Revise the draft standard, implementation plan, and supporting material as necessary
- Revised standard posted in early May, 2014 (as determined by initial comment and ballot period)
- Board of Trustees adoption and filing by June 5, 2014

- Participate in Webinar on April 17, 2014 for more information.
- Educate yourself on the standard and the RSAW.
- Vote!
 - If you have registered in the ballot body, we need you to vote, and you must vote by the close of business on April 24, 2014. If you do not vote and quorum is not met on April 24, 2014, this will negatively impact the ability of the SDT to expeditiously move forward.



Questions and Issues

Project Page:

<http://www.nerc.com/pa/Stand/Pages/Project-2014-04-Physical-Security.aspx>

- The following slides contains specific requirements language.
- This language was developed and posted for a 15-day concurrent comment and ballot period from April 10-April 14, 2014.

- **R1.** Each Transmission Owner shall perform an initial risk assessment and subsequent risk assessments of its Transmission stations and Transmission substations (existing and planned to be in service within 24 months) that meet the criteria specified in Applicability Section 4.1.1. The initial and subsequent risk assessments shall consist of a transmission analysis or transmission analyses designed to identify any Transmission station(s) and Transmission substation(s) that if rendered inoperable or damaged could result in widespread instability, uncontrolled separation, or Cascading within an Interconnection. *[VRF: High; Time-Horizon: Long-term Planning]*

1.1 Subsequent risk assessments shall be performed:

- At least once every 30 calendar months for a Transmission Owner that has identified in its previous risk assessment (as verified according to Requirement R2) one or more Transmission stations or Transmission substations that if rendered inoperable or damaged could result in widespread instability, uncontrolled separation, or Cascading within an Interconnection; or
- At least once every 60 calendar months for a Transmission Owner that has not identified in its previous risk assessment (as verified according to Requirement R2) any Transmission stations or Transmission substations that if rendered inoperable or damaged could result in widespread instability, uncontrolled separation, or Cascading within an Interconnection.

1.2 The Transmission Owner shall identify the primary control center that operationally controls each Transmission station or Transmission substation identified in the Requirement R1 risk assessment.

R2. Each Transmission Owner shall have an unaffiliated third party verify the risk assessment performed under Requirement R1. The verification may occur concurrent with or after the risk assessment performed under Requirement R1. *[VRF: Medium; Time-Horizon: Long-term Planning]*

2.1 Each Transmission Owner shall select an unaffiliated verifying entity that is either:

- A registered Planning Coordinator, Transmission Planner, or Reliability Coordinator; or
- An entity that has transmission planning or analysis experience.

2.2 The unaffiliated verifying entity shall either verify the Transmission Owner's risk assessment performed under Requirement R1 or recommend the addition or deletion of a Transmission station(s) or Transmission substation(s). The Transmission Owner shall ensure the verification is completed within 90 calendar days following the completion of the Requirement R1 risk assessment.

2.3 If the unaffiliated verifying entity recommends that the Transmission Owner add a Transmission station(s) or Transmission substation(s) to, or remove a Transmission station(s) or Transmission substation(s) from, its identification under Requirement R1, the Transmission Owner shall either, within 60 calendar days of completion of the verification, for each recommended addition or removal of a Transmission station or Transmission substation:

- Modify its identification under Requirement R1 consistent with the recommendation; or
- Document the technical basis for not modifying the identification in accordance with the recommendation.

2.4 Each Transmission Owner shall implement procedures, such as the use of non-disclosure agreements, for protecting sensitive or confidential information exchanged with the unaffiliated verifying entity.

R3. For a primary control center(s) identified by the Transmission Owner according to Requirement R1 and verified according to Requirement R2 that is not under the operational control of the Transmission Owner, the Transmission Owner shall, within seven calendar days following completion of Requirement R2, notify the Transmission Operator that has operational control of the primary control center of such identification and the date of completion of Requirement R2. *[VRF: Lower; Time-Horizon: Long-term Planning]*

3.1 If a Transmission station or Transmission substation previously identified under Requirement R1 and verified according to Requirement R2 is removed from the identification during a subsequent risk assessment performed according to Requirement R1 or a verification according to Requirement R2, then the Transmission Owner shall, within seven calendar days following the verification or the subsequent risk assessment, notify the Transmission Operator that has operational control of the primary control center of the removal.

R4. Each Transmission Owner that owns or operates a Transmission station, Transmission substation, or primary control center identified in Requirement R1 and verified according to Requirement R2, and each Transmission Operator notified by a Transmission Owner according to Requirement R3 that the Transmission Operator's primary control center has operational control of an identified Transmission station or Transmission substation, shall conduct an evaluation of the potential threats and vulnerabilities of a physical attack to each of their respective Transmission station(s), Transmission substation(s), and primary control center(s) identified in Requirement R1 and verified according to Requirement R2. The evaluation shall consider the following: *[VRF: Medium; Time-Horizon: Operations Planning, Long-term Planning]*

- 4.1** Unique characteristics of the identified and verified Transmission station(s), Transmission substation(s), and primary control center(s);
- 4.2** Prior history or attack on similar facilities taking into account the frequency, geographic proximity, and severity of past physical security related events; and
- 4.3** Intelligence or threat warnings from sources such as law enforcement, the Electric Reliability Organization (ERO), the Electricity Sector Information Sharing and Analysis Center (ES-ISAC), U.S. federal and/or Canadian governmental agencies, or their successors.

R5. Each Transmission Owner that owns or has operational control of a Transmission station, Transmission substation, or primary control center identified in Requirement R1 and verified according to Requirement R2, and each Transmission Operator notified by a Transmission Owner according to Requirement R3 that the Transmission Operator's primary control center has operational control of an identified Transmission station or Transmission substation, shall develop and implement a documented physical security plan(s) that covers their respective Transmission station(s), Transmission substation(s), and primary control center(s) within 120 calendar days following the completion of Requirement R2. The physical security plan(s) shall include the following attributes: *[VRF: High; Time-Horizon: Long-term Planning]*

5.1 Resiliency or security measures designed to deter, detect, delay, assess, communicate, and respond to potential physical threats and vulnerabilities based on the results of the evaluation conducted in Requirement R4.

5.2 Law enforcement contact and coordination information.

5.3 A timeline for implementing the physical security enhancements and modifications specified in the physical security plan.

5.4 Provisions to evaluate evolving physical threats, and their corresponding security measures, to the Transmission station(s), Transmission substation(s), or primary control center(s).

R6. Each Transmission Owner that owns or operates a Transmission station, Transmission substation, or primary control center identified in Requirement R1 and verified according to Requirement R2, and each Transmission Operator notified by a Transmission Owner according to Requirement R3 that the Transmission Operator's primary control center has operational control of an identified Transmission station or Transmission substation, shall have an unaffiliated third party review the evaluation performed under Requirement R4 and the security plan(s) developed under Requirement R5. The review may occur concurrently with or after completion of the evaluation performed under Requirement R4 and the security plan development under Requirement R5. *[VRF: Medium; Time-Horizon: Long-term Planning]*

6.1 Each Transmission Owner and Transmission Operator shall select an unaffiliated third party reviewer from the following:

6.1.1 An entity or organization with electric industry physical security experience and whose review staff has at least one member who holds either a Certified Protection Professional (CPP) or Physical Security Professional (PSP) certification.

6.1.2 An entity or organization approved by the ERO.

6.1.3 A governmental agency with physical security expertise.

6.1.4 An entity or organization with demonstrated law enforcement, government, or military physical security expertise.

6.2 The Transmission Owner or Transmission Operator, respectively, shall ensure that the unaffiliated third party review is completed within 90 calendar days of completing the security plan(s) developed in Requirement R5. The unaffiliated third party review may, but is not required to, include recommended changes to the evaluation performed under Requirement R4 or the security plan(s) developed under Requirement R5.

6.3 If the unaffiliated reviewing entity recommends changes to the evaluation performed under Requirement R4 or security plan(s) developed under Requirement R5, the Transmission Owner or Transmission Operator shall, within 60 calendar days of the completion of the unaffiliated third party review, for each recommendation:

- Modify its evaluation or security plan(s) consistent with the recommendation; or
- Document the reason(s) for not modifying the evaluation or security plan(s) consistent with the recommendation.

6.4 Each Transmission Owner and Transmission Operator shall implement procedures, such as the use of non-disclosure agreements, for protecting sensitive or confidential information exchanged with the unaffiliated reviewing entity.