

Project 2007-06.2

System Protection Coordination
Draft 2 of TOP-009-1

Industry Webinar
October 28 and November 5, 2015

RELIABILITY | ACCOUNTABILITY



- Presenters
 - Standard drafting team (SDT)
 - Chair, Mark Peterson, Great River Energy
 - Vice-Chair, Michael Cruz-Montes, CenterPoint Energy, LLC
 - NERC
 - Scott Barfield-McGinnis, Standards Developer
- Administrative Items
- TOP-009-1, Draft 2
- Closing Remarks
- Questions and Answers



Administrative Items

- 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

- **Public Announcement**
 - Participants are reminded that this meeting is public. Notice of the meeting was 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
- **Presentation Material**
 - Wording in this presentation is used for presentation purposes and may not reflect the official posted drafts of requirements or other language
- **For the official record**
 - Conference presentation is not a part of the official project record
 - Comments must be submitted via the project web page during posting

TOP-009-1 Standard Drafting Team

Member	Entity
Mark Peterson, chair	Great River Energy
Michael Cruz-Montes, vice-chair	CenterPoint Energy Houston Electric, LLC
Po Bun Ear	Hydro-Québec TransÉnergie
Scott Hayes	Pacific Gas & Electric
Mark Kuras	PJM Interconnection, LLC
Sam Mannan	Los Angeles Dept. of Water and Power (LADWP)
Yubaraj Sharma	Entergy Services, Inc.
Rui Da Shu	Northeast Power Coordinating Council
Scott Watts	Duke Energy Carolinas

- Reliability objective
 - Applicable personnel have knowledge of specific Composite Protection Systems and Remedial Action Schemes
- Why was TOP selected over PRC and PER standards?
 - PRC standards address requirements for owners
 - PER standards cover entity specific tasks over unique periodicities
- TOP best fits the reliability objective for operations personnel
 - Knowledge is needed in the Real-time time frame
 - The knowledge may change in a periodicity less than the PER standards
 - Goes beyond fundamental knowledge covered by PER standards
- Reliability Coordinator (RC)
 - Not included initially and not in the current posting
 - RC is being addressed separately by the drafting team



TOP-009-1, Draft 2

- **R1.** Each Transmission Operator shall ensure its personnel [() responsible for Reliable Operation of its Transmission Operator Area ()] have knowledge of operational functionality and effects of Composite Protection Systems and RAS that are necessary to perform its Operational Planning Analysis (OPA), Real-time monitoring (RTM), and Real-time assessments (RTA)
 - Brackets “[]” highlight what was changed
- Personnel must have knowledge of those protection systems that the Transmission Operator receives notification of current status of degradation necessary to perform its OPA, RTM, and RTA
 - Refer to TOP-003-3 (*Operational Reliability Data*) for more information

- **R2.** Each Balancing Authority shall ensure its personnel [()responsible for Reliable Operation of its Balancing Authority Area()] have knowledge of operational functionality and effects of Composite Protection Systems and RAS that are necessary to perform its Real-time monitoring (RTM) in order to maintain [generation, Load, and Interchange] balance
 - Brackets “[]” highlight what was changed
- Personnel must have knowledge of those protection systems that the Balancing Authority receives notification of current status of degradation necessary to perform its RTM
 - Refer to TOP-003-3 (*Operational Reliability Data*) for more information

- From draft 1
 - **R3.** Each Generator Operator shall ensure its personnel responsible for Reliable Operation of its generating Facilities have knowledge of operational functionality and effects of Composite Protection Systems and Remedial Action Schemes that impact its generating Facilities.
- Proposed revision
 - **R3.** Each Generator Operator shall ensure personnel responsible for [**Real-time control of a Facility**] have knowledge of operational functionality of [**BES**] Composite Protection Systems[;] and Remedial Action Schemes [**that affect output of the Facility**].
 - Brackets “[]” highlight what was changed
- More accurately
 - Identifies the Generator Operator personnel
 - Reflects what a Generator Operator should know

- Example from draft 1
 - Each (applicable entity) shall have evidence that demonstrates the knowledge according to Requirement R(x). Evidence may include, but is not limited to, the following: training (including the effects on the generating Facilities), operating guides, manuals, procedures, interconnection agreements or studies, or access to third-party documentation.
- Example of draft 2
 - Each (applicable entity) shall [provide] evidence [to] demonstrate [the method(s) used to ensure its personnel have] knowledge according to Requirement R(x). Evidence may include...(same)...
 - Brackets “[]” highlight what was changed

- Best aligns the reliability activity in the TOP family of Reliability Standards
- Focuses knowledge on specific protection systems (e.g., TOP-003-3, R1 & R2)
- Gradates VSLs to be proportionate with risk
- Clarifies personnel responsible
- Improves Measure clarity
- Clarifies GOP expectations
- Enhances Application Guidelines
- Increases implementation period
- Addresses Reliability Coordinator separately



Closing Remarks

- TOP-009-1 is posted for formal comment and ballot
 - Comment Period: October 6 – November 19, 2015
 - Additional ballot: November 10-19, 2015
- Draft RSAW posted for feedback
 - October 20 – November 19, 2015
- SDT in-person meeting to respond to comments
 - November 30 – December 4, 2015
 - Tri-State G&T, Westminster, CO
- Final ballot
 - Early December 2015
- Anticipated NERC Board of Trustees adoption
 - February 2016

- Encourage working through forums or trades
 - To become aware of industry direction on topics
 - Develop consolidated comments informally or during postings
- NERC Standards Developer
 - Project 2007-06.2, Scott.Barfield@nerc.net, 404-446-9689
- SDT members and NERC staff are available to address other groups (e.g., Regional working groups, trades, etc.)
 - Contact the Standards Developer to arrange
- Questions & Answers