NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

PRC-005 Order No. 803 Directive

Industry Webinar
June 24, 2015
Charles W. Rogers, Chair – Standard Drafting Team

RELIABILITY | ACCOUNTABILITY




Topics

- NERC Antitrust Compliance Guidelines and Public Announcement
- PRC-005 development history
- FERC Order 803 directive
- Standards Authorization Request (SAR)
- Proposed Methodology to address the directive
- Proposed Implementation Plan
- Standard development timeline

NERC Antitrust Compliance Guidelines and Public Announcement

- 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.

PRC-005 Development History

- PRC-005-0 – Approved by FERC in Order 693
  - Several minor revisions / interpretations through May 2012
  - September 2007 – SPCTF (now SPCS) presented report and SAR on PRC-005 (and PRC-008/PRC-011/PRC-017) for PC approval
  - October 2007 – Standards Committee (SC) approved posting SAR

PRC-005 Development History

- November 2007 – Project 2007-17 Standard Drafting Team (SDT) began development of PRC-005-2
  - November 2012 – Board of Trustees (BOT) approved PRC-005-2
    - Approved by FERC with several directives
  - November 2013 – BOT approved PRC-005-3 (Automatic Reclosing)
    - Approved by FERC in January 2015 in order 803 with directives
  - November 2014 – BOT approved PRC-005-4 (Sudden Pressure Relaying)
    - Pending at FERC
  - April 2015 – SDT revised PRC-005-4 to address directives from Order 803
    - Includes pending changes from Distributed Energy Resources SDT and Remedial Action Schemes (RAS)/Special Protection Systems (SPS) SDT

PRC-005 Development History

- Distributed Energy Resources SDT
  - Revised PRC-005-2 and PRC-005-3 to update applicability for Distributed Energy Resources
    - PRC-005-2(i) and PRC-005-3(i)
    - Drafted PRC-005-5 to include all approved and pending changes
- RAS/SPS SDT
  - Revised PRC-005-2 and PRC-005-3 to reflect change from SPS to RAS
    - PRC-005-2(ii) and PRC-005-3(ii)

FERC Order 803

- In Order No. 803, FERC approved Standard PRC-005-3 and, in Paragraph 31, directed NERC to:
  - "...direct that, pursuant to section 215(d)(5) of the FPA, NERC develop modifications to PRC-005-3 to ***include supervisory devices associated with auto-reclosing relay schemes*** to which the Reliability Standard applies. Further, we clarify that NERC's proposal regarding the scope of supervisory devices is an acceptable approach to satisfy the Commission directive. Specifically, NERC proposed in its NOPR comments, and we find acceptable, that ***the scope of the supervisory devices to be encompassed in the Reliability Standard are those providing voltage supervision, supervisory inputs associated with selective auto-reclosing, and sync-check relays that are part of a reclosing scheme covered by PRC-005-3***."

SAR and Proposed Revisions

- A revised SAR was prepared along with a proposal to address the directive
- The SAR provides background information regarding the directive
- The existing Protection System Maintenance and Testing SDT (PSMTSDT) will work to address the directive

SAR and Proposed Revisions

- The proposed solution that the PSMTSDT developed to address the directive proposes to revise the standard specific defined terms “Automatic Reclosing” and “Component Type”
  - **Automatic Reclosing** – Includes the following Components:
    - Reclosing relay
    - Supervisory relay(s) – relays(s) that perform voltage and/or sync check functions that enable or disable operation of the reclosing relay
    - Voltage and Current Sensing Devices associated with the supervisory relay(s)
    - Control circuitry associated with the reclosing relay or supervisory relay(s).

SAR and Proposed Revisions

- The proposed solution that the PSMTSDT developed to address the directive proposes to revise the standard specific defined terms “Automatic Reclosing” and “Component Type”
  - **Component Type**:
    - Any one of the five specific elements of a Protection System.
    - Any one of the ~~two~~ four specific elements of Automatic Reclosing.
    - Any one of the two specific elements of Sudden Pressure Relaying.

SAR and Proposed Revisions

- The PSMTSDT also proposes minor changes to Tables 4-1, 4-2(a) and 4-3(b)
  - Adding supervisory relays where needed
  - Other minor clarifying changes

SAR and Proposed Revisions

- The PSMTSDT also proposes that a new table, Table 4-3, be added to address maintenance activities and testing for Automatic Reclosing with supervisory relays

Table 4-3
Maintenance Activities and Intervals for Automatic Reclosing Components
Component Type – Voltage and Current Sensing Devices Associated with Supervisory Relays

Component Attributes	Maximum Maintenance Interval	Maintenance Activities
Any voltage sensing device not having monitoring attributes of the category below.	12 Calendar Years	Verify that current and voltage signal values are provided to the supervisory relays.
Voltage sensing devices that are connected to microprocessor supervisory relays with AC measurements that are continuously verified by comparison of sensing input value, as measured by the microprocessor relay, to an independent ac measurement source, with alarming for unacceptable error or failure. (See Table 2)	No periodic maintenance specified	None.

Proposed Implementation Plan

- The PSMTSDT proposes to streamline the Implementation Plan for all versions of PRC-005.
- PRC-005-2 and PRC-005-2(i) would be implemented together.
- All other versions of the standard would be implemented simultaneously with PRC-005-6.
  - PRC-005-2(ii)
  - PRC-005-3
  - PRC-005-3(i)
  - PRC-005-3(ii)
  - PRC-005-4
  - PRC-005-5

Standard Development Timeline

- March 12 – April 10, 2015: The SAR and proposed methodology was posted for a 30-day informal comment period
- April 22-23, 2015: The PSMTSDT met to review the comments on the SAR and to begin drafting revisions to PRC-005
- May 20, 2015: The SC directed that the SAR be revised to a new SAR and re-posted
- June 11, 2015: The SC authorized posting
- June 11 – July 10, 2015: SAR, revised standard, and associated documents posted for a 30-day informal comment period
- Mid-July 2015: PSMTSDT planning to meet via conference call to address comments received and revise the standard

Standard Development Timeline

- August 19, 2015: SC meeting – PSMTSDT planning to request authorization to post revised standard for a 45-day concurrent comment/ballot period (August 20 – October 6, 2105)
- Week of October 11, 2015: PSMTSDT will meet to respond to comments and prepare documents for final ballot
- On or around October 20-29, 2015: Documents posted for final ballot
- November 5-6, 2015: BOT meeting – Revised standard will be presented for adoption
- December 2015: File PRC-005-6 and its Implementation Plan with FERC

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Questions