

Proposed Methodology

PRC-005 Directive

Directive

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."

Proposed Methodology to Address Directive

The proposed solution that the Protection System Maintenance and Testing Standard Drafting Team (PSMTSDT) developed to address the directive revises the standard specific defined terms "Automatic Reclosing" and "Component Type" as follows:

Automatic Reclosing – Includes the following Components:

- Reclosing relay
- **Supervisory relay that monitors BES quantities (such as voltage, frequency, or voltage angle) and supervises operation of the reclosing relay**
- **Voltage and Current Sensing Devices associated with the supervisory**
- Control circuitry associated with the reclosing relay **or supervisory relay.**

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.

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 and current sensing devices 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 and Current Sensing devices that are connected to microprocessor supervisory relays with AC measurements 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.

No revisions are being proposed for the Requirements of the standard. This version of PRC-005 uses PRC-005-5 being developed under Project 2014-01 as the starting point for revisions to address the directive.