

Implementation Plan

Project 2007-17 Protection Systems Maintenance and Testing

PRC-005-02

Standards Involved

Approval:

- PRC-005-2 – Protection System Maintenance and Testing

Retirements ~~(phased to coincide with each entity's implementation of PRC 005-2 as specified in the Implementation Plan for Requirements R1 through R3 later in this document):~~

- ~~• PRC-005-1 – Transmission and Generation Protection System Maintenance and Testing~~
- PRC-005-1a – Transmission and Generation Protection System Maintenance and Testing
- PRC-008-0 – Implementation and Documentation of Underfrequency Load Shedding Equipment Maintenance Program
- PRC-011-0 – Undervoltage Load Shedding System Maintenance and Testing
- PRC-017-0 – Special Protection System Maintenance and Testing

Prerequisite Approvals:

Revised definition of "Protection System"

Background:

The Implementation Plan reflects consideration of the following:

1. The requirements set forth in the proposed standard establish minimum maintenance activities for Protection System component types and the maximum allowable maintenance intervals for these maintenance activities for the first time. The maintenance activities established may not be presently performed by some entities and the established maximum allowable intervals may be shorter than those currently in use by some entities.
2. For entities not presently performing a maintenance activity or using longer intervals than the maximum allowable intervals established in the proposed standard, it is unrealistic for those entities to be immediately in compliance/compliant with the new activities or intervals. Further, entities should be allowed to become compliant in such a way as to facilitate a continuing maintenance program.

3. Entities that have previously been performing maintenance within the newly specified intervals may not have all the documentation needed to demonstrate compliance with all of the maintenance activities specified.

4. The Implementation Schedule set forth in this document requires that entities develop their revised Protection System Maintenance Program within twelve (12) months following applicable regulatory approvals, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter ~~twelve twenty-four (24)~~ months following NERC Board of Trustees adoption. This anticipates that it will take approximately twelve (12) months to achieve regulatory approvals following adoption by the NERC Board of Trustees.
5. The Implementation Schedule set forth in this document ~~further requires facilitates~~ implementation of the more lengthy maintenance intervals within the revised Protection System Maintenance Program in ~~roughly approximately~~ equally-distributed steps over ~~the maintenance those~~ intervals prescribed for each respective maintenance activity in order that entities may implement this standard in a systematic method that facilitates an effective ongoing Protection System Maintenance Program.

General Considerations:

Each Transmission Owner, Generator Owner, and Distribution Provider shall maintain documentation to demonstrate compliance follow the protection system maintenance and testing program it used to perform maintenance and testing to comply with PRC-005-1, PRC-005-1a, PRC-008-0, PRC-011-0, and PRC-017-0 (for the Protection System components identified in PRC-005-2 Tables 1-1 through 1-5, Table 2, and Table 3) until that ~~Transmission Owner, Generator Owner or Distribution Provider~~ entity meets ~~initial compliance~~ the requirements of PRC-005-2 for maintenance of the same Protection System component, in accordance with ~~the phasing specified below~~ this implementation plan.

~~For audits that are conducted during the time period when hile~~ entities are modifying/transitioning their existing protection system maintenance and testing programs to become compliant with ~~to~~ the maintenance activities and intervals specified in ~~requirements of~~ PRC-005-2, each ~~responsible~~ entity must be prepared to identify:

- All of its applicable ~~protection~~ Protection system/System components.
- ~~For each component, whether maintenance of that each~~ component is being addressed has last been maintained according to PRC-005-2 or under ~~PRC-005-1, PRC-005-1a, PRC-008-0, PRC-011-0, or PRC-017-0,~~ or a combination thereof.

~~Evidence that each component has been maintained under the relevant requirements.~~ For activities being added to an entity's program as part of PRC-005-2 implementation, evidence may be available to show only a single performance of the activity until two maintenance intervals have transpired following initial implementation of PRC-005-2.

Retirement of Existing Standards:

The existing Standards ~~PRC-005-1~~, PRC-005-1a, PRC-008-0, PRC-011-0, and PRC-017-0 shall be retired at midnight of the day immediately prior to the first day of the first calendar quarter following ~~the latter of 156 months following~~ applicable regulatory approval of PRC-005-2 in all ~~jurisdictions~~ jurisdiction ~~or 168 months following Board of Trustees adoption of PRC-005-2~~.

Implementation Plan for Definition:

Protection System Maintenance Program – Entities shall use this definition when implementing any portions of R1, R2 ~~and R3~~, R4 and R5 which use this defined term.

Implementation Plan for Requirements R1, R2 and R5:

Entities shall be 100% compliant on the first day of the first calendar quarter twelve (12) months following applicable regulatory approvals, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter ~~one-four~~ (24) months following NERC Board of Trustees adoption.

Implementation Plan for Requirements ~~R2 and R3~~ and R4:

~~Protection System Maintenance Program – Entities shall use this definition when implementing any portions of R1, R2 and R3 which use this defined term.~~

1. For Protection System components maintenance activities with maximum allowable intervals of less than one (1) calendar year, as established in Tables 1-1 through 1-5:
 - The entity shall be 100% compliant with PRC-005-2 on the first day of the first calendar quarter eighteen 15-(18) months following applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter thirty 24 (30) months following NERC Board of Trustees adoption.
2. For Protection System components maintenance activities with maximum allowable intervals one (1) calendar year or more, but two (2) calendar years or less, as established in Tables 1-1 through 1-5:
 - The entity shall be 100% compliant with PRC-005-2 on the first day of the first calendar quarter thirty-six (36) months following applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter forty-eight (48) months following NERC Board of Trustees adoption.
3. For Protection System components maintenance activities with maximum allowable intervals of three (3) calendar years, as established in Tables 1-1 through 1-5:
 - The entity shall be at least 30% compliant with PRC-005-2 on the first day of the first calendar quarter twenty-four (24) months following applicable regulatory approval (or, for generating plants with scheduled outage intervals exceeding two years, at the conclusion of the first succeeding maintenance outage), or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter thirty-six (36) months following NERC Board of Trustees adoption.
 - The entity shall be at least 60% compliant with PRC-005-2 on the first day of the first calendar quarter thirty-six (36) months following applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter forty-eight (48) months following NERC Board of Trustees adoption.

- The entity shall be 100% compliant with PRC-005-2 on the first day of the first calendar quarter forty-eight (48) months following applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter sixty (60) months following NERC Board of Trustees adoption.
4. For Protection System components maintenance activities with maximum allowable intervals of six (6) calendar years, as established in Tables 1-1 through 1-5 and Table 3:
- The entity shall be at least 30% compliant with PRC-005-2 on the first day of the first calendar quarter thirty-six (36) months following applicable regulatory approval (or, for generating plants with scheduled outage intervals exceeding three years, at the conclusion of the first succeeding maintenance outage), or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter forty-eight (48) months following NERC Board of Trustees adoption.
 - The entity shall be at least 60% compliant with PRC-005-2 on the first day of the first calendar quarter sixty (60) months following applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter seventy-two (72) months following NERC Board of Trustees adoption.
 - The entity shall be 100% compliant with PRC-005-2 on the first day of the first calendar quarter eighty-four (84) months following applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter ninety-six (96) months following NERC Board of Trustees adoption.
5. For Protection System components maintenance activities with maximum allowable intervals of twelve (12) calendar years, as established in Tables 1-1 through 1-5, Table 2, and Table 3:
- The entity shall be at least 30% compliant with PRC-005-2 on the first day of the first calendar quarter sixty (60) months following applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter seventy-two (72) months following NERC Board of Trustees adoption.
 - The entity shall be at least 60% compliant with PRC-005-2 on the first day of the first calendar quarter following one hundred eight (108) months following applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter one hundred twenty (120) months following NERC Board of Trustees adoption.
 - The entity shall be 100% compliant with PRC-005-2 on the first day of the first calendar quarter one hundred fifty-six (156) months following applicable regulatory approval, or in those jurisdictions where no regulatory approval is required, on the first day of the first calendar quarter one hundred sixty-eight (168) months following NERC Board of Trustees adoption.

Applicability:

This standard applies to the following functional entities:

- Transmission Owners
- Generator Owners
- Distribution Providers
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