

## Implementation Plan for PRC-004-03

### Standards Involved:

- Approval:
  - PRC-004-3 – Protection System Misoperation Identification and Correction
- Retirements:
  - PRC-003-1— Regional Procedure for Analysis of Misoperations of Transmission and Generation Protection Systems
  - PRC-004-1a — Analysis and Mitigation of Transmission and Generation Protection System Misoperations
  - PRC-004-2 — Analysis and Mitigation of Transmission and Generation Protection System Misoperations
- Related
  - PRC-003-STD-1, PRC-004-WECC-1: These are two regional standards related to reporting of Misoperations for a limited set of WECC Paths and Remedial Action Schemes. In those cases where those standards will overlap with the Continent-wide standard, entities are expected to comply with the more stringent standard. Doing so will ensure compliance with the less stringent standard as well. There are no apparent conflicts between the standards that would lead to mutually exclusive compliance.

### Prerequisite Approvals:

The proposed standard is **not** dependent on any prerequisite approvals.

### Revision to Sections of Approved Standards and Definitions:

There is one revised definition for the proposed standard:

**Misoperation:** Any of the following:

1. **Failure to Trip - During Fault** - Any failure of a Protection System to operate for a Fault within the zone it is designed to protect.
2. **Failure to Trip - Other Than Fault** - Any failure of a Protection System to operate for a non-Fault condition such as power swings, under-voltage, over excitation, or loss of excitation for which the Protection System was intended to operate.
3. **Slow Trip** - Any Protection System operation that is slower than planned for a Fault within the zone it is designed to protect.
4. **Unnecessary Trip - During Fault** - Any Protection System operation for a Fault not within the zone it is designed to protect.
5. **Unnecessary Trip - Other Than Fault** - Any Protection System operation for non-Fault conditions such as power swings, under-voltage, over excitation, or loss of excitation for which the Protection System is not intended to operate.

### Retirement of Existing Standards:

The existing Standards PRC-003-1, PRC-004-1a, and PRC-004-2 shall be retired upon regulatory approval of PRC-004-3.

PRC-003-1 is currently not enforceable, but requires the establishment of a procedure by the RRO. The new PRC-004-3 puts this obligation on the Functional Entities instead, and specifies the minimum elements required in the procedure, making PRC-003-1 unnecessary and duplicative.

PRC-004-1a and -2 Requirements R1 and R2 require the Functional Entities implement the procedures specified in PRC-003-1. R1 in the new PRC-004-3 includes this obligation. R3 in PRC-004-1A and -2 requires reporting to the RRO, which has now been included in the Compliance section of the standard. Together, these elements make PRC-004-1A and -2 superfluous as well.

**Applicability:**

This standard applies to the following functional entities:

- Transmission Owners
- Generator Owners
- Distribution Providers

This standard applies to the following Facilities:

- Protection Systems for Facilities that are part of the BES.
- Special Protection Systems (SPS), Remedial Action Schemes (RAS), and Under Voltage Load Shedding programs are excluded from this standard.

**Effective Date:**

The effective date is the date entities are expected to meet the performance identified in this standard.

Requirement R1 and its associated parts shall become effective on the first day of the first calendar quarter, 3 months after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, all requirements go into effect on the first day of the first calendar quarter, 3 months after Board of Trustees adoption.

Because the standard does not deviate significantly from what is required today, it is believed that this standard can be implemented on a relatively short schedule.