

Mapping Document Showing Translation of PRC-003-1 – Regional Procedure for Analysis of Misoperations of Transmission and Generation Protection Systems, and PRC-004-2 – Analysis and Mitigation of Transmission and Generation Protection System Misoperations into PRC-004-3 — Protection System Misoperation Identification and Correction

Standard: PRC-003-1 – Regional Procedure for Analysis of Misoperations of Transmission and Generation Protection Systems		
Requirement in Approved Standard	Translation to New Standard or Other Action	Proposed Language in PRC-004-3 – Protection System Misoperation Identification and Correction or Comment
<p>R1. Each Regional Reliability Organization shall establish, document and maintain its procedures for, review, analysis, reporting and mitigation of transmission and generation Protection System Misoperations. These procedures shall include the following elements:</p>	<p>PRC-004-3 Requirement R1 replaces the Regional Reliability Organization with the Transmission Owner, Generator Owner, and Distribution Provider as the Responsible entity(s) for reviewing events to identify all Misoperations. Additionally, the Standard has specified the minimum elements that must be included in the procedure.</p>	<p>R1. Each Transmission Owner, Generator Owner, and Distribution Provider shall have and implement a procedure to identify and address all Protection System Misoperations within its system. At a minimum, the procedure shall include: [<i>Violation Risk Factor: High</i>] [<i>Time Horizon: Operations Assessment, Operations Planning</i>]</p> <p>(parts omitted for brevity)</p>

<p>R1, Part 1.1. The Protection Systems to be reviewed and analyzed for Misoperations (due to their potential impact on BES reliability).</p>	<p>PRC-004-3 Requirement R1, Part 1.1 specifies, using glossary terms, all events involving BES Faults or BES Protection Systems operations are reviewed to identify all Misoperations.</p>	<p>R1.Each Transmission Owner, Generator Owner, and Distribution Provider shall have and implement a procedure to identify and address all Protection System Misoperations within its system. At a minimum, the procedure shall include: <i>[Violation Risk Factor: High] [Time Horizon: Operations Assessment, Operations Planning]</i></p> <p>R1.1. A detailed description of the processes used to:</p> <p>1.1.1 Document and review all BES Faults and BES Protection System operations.</p> <p>1.1.2 Identify and document all associated Misoperations, if any.</p> <p>1.1.3 Investigate and address each Misoperation.</p>
<p>R1, Part 1.2. Data reporting requirements (periodicity and format) for Misoperations.</p>	<p>PRC-004-3 Section 1.4 Additional Compliance Information specifies submitting Misoperation data on a quarterly basis using the format specified by the ERO. The format for data submission is based on the current TADS reporting template.</p>	<p>1.4. Additional Compliance Information</p> <p>Periodic Data Submittal: Within 60 calendar days following the end of the calendar quarter, each Transmission Owner, Generator Owner, or Distribution Provider that owns BES protection Systems will submit a quarterly report to its Regional</p>

		<p>Entity, identifying all Misoperations in accordance with Requirement R1 using the format as specified by the ERO. Each Misoperation shall be updated on a quarterly basis until the CAP or action plan is reported complete.</p> <p>The Regional Entity will report the Misoperation information provided by the responsible entities to NERC on a quarterly basis.</p>
<p>R1, Part 1.3. Process for review, analysis follow up, and documentation of Corrective Action Plans for Misoperations.</p>	<p>PRC-004-3 Requirement R1 specifies the owner of the BES Protection System that Misoperated shall develop and document a Corrective Action Plan or declaration if cause is known, and that the owner of the BES Protection System that Misoperated shall develop and document an action plan or declaration if cause is not known.</p>	<p>R1.2. A requirement that the Registered Entity shall, within 90 calendar days of each identified Misoperation, investigate the Misoperation to determine its cause(s) and do one of the following:</p> <ul style="list-style-type: none"> ● For each Misoperation where the cause(s) are identified, document the investigation and the cause(s). ● For those cases where the cause(s) are not identified, document the investigation, any cause(s) that were ruled out, and any additional steps planned to identify the cause(s). <p>R1.3. A requirement that for all Misoperations for which the cause(s) was (were) identified, the Registered</p>

		<p>Entity shall, within 120 calendar days of the Misoperation, develop one of the following:</p> <ul style="list-style-type: none"> • A Corrective Action Plan (CAP) that includes: <ol style="list-style-type: none"> 1. Interim corrective actions (if any). 2. Final corrective or mitigating actions to reduce potential impacts to BES reliability. 3. A work timetable. • A declaration explaining why there is no need to develop a CAP. <p>R1.4. A requirement that for all Misoperations for which the cause(s) was (were) not identified, the Registered Entity shall, within 120 calendar days of the Misoperation, develop one of the following:</p> <ul style="list-style-type: none"> • An action plan that identifies: <ol style="list-style-type: none"> 1. Additional investigative actions and/or Protection System modifications.
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<p>R1, Part 1.4. Identification of the Regional Reliability Organization group responsible for the procedures and the process for approval of the procedures.</p>	<p>PRC-004-3 Requirement R1 replaces the Regional Reliability Organization with the Transmission Owner, Generator Owner, and Distribution Provider as the Responsible entity(s) for reviewing events to identify all Misoperations.</p>	<p>R1.Each Transmission Owner, Generator Owner, and Distribution Provider shall have and implement a procedure to identify and address all Protection System Misoperations within its system. At a minimum, the procedure shall include: <i>[Violation Risk Factor: High] [Time Horizon: Operations Assessment, Operations Planning]</i></p> <p>(parts omitted for brevity)</p>
<p>R2. Each Regional Reliability Organization shall maintain and periodically update documentation of its procedures for review, analysis, reporting, and mitigation of transmission and generation Protection System Misoperations.</p>	<p>PRC-004-3 Requirement R1 replaces the Regional Reliability Organization with the Transmission Owner, Generator Owner, and Distribution Provider as the Responsible entity(s) for reviewing events to identify all Misoperations. Rather than requiring ongoing updates and maintenance of the procedure, the Standard has specified the minimum elements that must be included in the procedure.</p>	<p>R1.Each Transmission Owner, Generator Owner, and Distribution Provider shall have and implement a procedure to identify and address all Protection System Misoperations within its system. At a minimum, the procedure shall include: <i>[Violation Risk Factor: High] [Time Horizon: Operations Assessment, Operations Planning]</i></p> <p>(parts omitted for brevity)</p>

<p>R3. Each Regional Reliability Organization shall distribute procedures in Requirement 1 and any changes to those procedures, to the affected Transmission Owners, Distribution Providers that own transmission Protection Systems, and Generator Owners within 30 calendar days of approval of those procedures.</p>	<p>PRC-004-3 Requirement R1 replaces the Regional Reliability Organization with the Transmission Owner, Generator Owner, and Distribution Provider as the Responsible entity(s) for reviewing events to identify all Misoperations. Accordingly, there is no need to distribute the procedures.</p>	<p>R1.Each Transmission Owner, Generator Owner, and Distribution Provider shall have and implement a procedure to identify and address all Protection System Misoperations within its system. At a minimum, the procedure shall include: <i>[Violation Risk Factor: High] [Time Horizon: Operations Assessment, Operations Planning]</i></p> <p>(parts omitted for brevity)</p>
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<p>Standard: PRC-004-2 - Analysis and Mitigation of Transmission and Generation Protection System Misoperations</p>		
<p>Requirement in Approved Standard</p>	<p>Translation to New Standard or Other Action</p>	<p>Proposed Language in PRC-004-3 – Protection System Misoperations or Comment</p>
<p>R1. The Transmission Owner and any Distribution Provider that owns a transmission Protection System shall each analyze its transmission Protection System Misoperations and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature according to the Regional Entity’s procedures.</p>	<p>PRC-004-3 Requirement R1 specifies the Transmission Owner and Distribution Provider must have and implement a procedure that requires analysis and development of plans as appropriate.</p>	<p>R1.Each Transmission Owner, Generator Owner, and Distribution Provider shall have and implement a procedure to identify and address all Protection System Misoperations within its system. At a minimum, the procedure shall include: <i>[Violation Risk Factor: High] [Time Horizon: Operations Assessment, Operations Planning]</i></p> <p>(parts omitted for brevity)</p>

<p>R2. The Generator Owner shall analyze its generator Protection System Misoperations, and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature according to the Regional Entity's procedures.</p>	<p>PRC-004-3 Requirement R1 specifies the Generator Owner must have and implement a procedure that requires analysis and development of plans as appropriate.</p>	<p>R1. Each Transmission Owner, Generator Owner, and Distribution Provider shall have and implement a procedure to identify and address all Protection System Misoperations within its system. At a minimum, the procedure shall include: [<i>Violation Risk Factor: High</i>] [<i>Time Horizon: Operations Assessment, Operations Planning</i>]</p> <p>(parts omitted for brevity)</p>
<p>R3. The Transmission Owner, any Distribution Provider that owns a transmission Protection System, and the Generator Owner shall each provide to its Regional Entity, documentation of its Misoperations analyses and Corrective Action Plans according to the Regional Entity's procedures.</p>	<p>PRC-004-3 Section 1.4 Additional Compliance Information specifies submitting Misoperation data on a quarterly basis using the format specified by the ERO. The format for data submission is based on the current TADS reporting template.</p> <p>PRC-004-3 Measures specifies documentation requirements with Evidence Retention of 6 years.</p>	<p>1.4. Additional Compliance Information</p> <p>Periodic Data Submittal: Within 60 calendar days following the end of the calendar quarter, each Transmission Owner, Generator Owner, or Distribution Provider that owns BES protection Systems will submit a quarterly report to its Regional Entity, identifying all Misoperations in accordance with Requirement R1 using the format as specified by the ERO. Each Misoperation shall be updated on a quarterly basis until the CAP or action plan is reported complete.</p> <p>The Regional Entity will report the Misoperation information provided by the responsible entities to NERC on a quarterly basis.</p>