

Reliability Standard Audit Worksheet¹

PRC-004-3 – Protection System Misoperation Identification and Correction

This section to be completed by the Compliance Enforcement Authority.

Audit ID: Audit ID if available; or REG-NCRnnnnn-YYYYMMDD
Registered Entity: Registered name of entity being audited
NCR Number: NCRnnnnn
Compliance Enforcement Authority: Region or NERC performing audit
Compliance Assessment Date(s):² Month DD, YYYY, to Month DD, YYYY
Compliance Monitoring Method: Audit
Names of Auditors: Supplied by CEA

Applicability of Requirements *[RSAW developer to insert correct applicability]*

	BA	DP	GO	GOP	IA	LSE	PA	PSE	RC	RP	RSG	TO	TOP	TP	TSP
R1		X	X									X			
R2		X	X									X			
R3		X	X									X			
R4		X	X									X			
R5		X	X									X			
R6		X	X									X			

¹ NERC developed this Reliability Standard Audit Worksheet (RSAW) language in order to facilitate NERC’s and the Regional Entities’ assessment of a registered entity’s compliance with this Reliability Standard. The NERC RSAW language is written to specific versions of each NERC Reliability Standard. Entities using this RSAW should choose the version of the RSAW applicable to the Reliability Standard being assessed. While the information included in this RSAW provides some of the methodology that NERC has elected to use to assess compliance with the requirements of the Reliability Standard, this document should not be treated as a substitute for the Reliability Standard or viewed as additional Reliability Standard requirements. In all cases, the Regional Entity should rely on the language contained in the Reliability Standard itself, and not on the language contained in this RSAW, to determine compliance with the Reliability Standard. NERC’s Reliability Standards can be found on NERC’s website. Additionally, NERC Reliability Standards are updated frequently, and this RSAW may not necessarily be updated with the same frequency. Therefore, it is imperative that entities treat this RSAW as a reference document only, and not as a substitute or replacement for the Reliability Standard. It is the responsibility of the registered entity to verify its compliance with the latest approved version of the Reliability Standards, by the applicable governmental authority, relevant to its registration status.

The NERC RSAW language contained within this document provides a non-exclusive list, for informational purposes only, of examples of the types of evidence a registered entity may produce or may be asked to produce to demonstrate compliance with the Reliability Standard. A registered entity’s adherence to the examples contained within this RSAW does not necessarily constitute compliance with the applicable Reliability Standard, and NERC and the Regional Entity using this RSAW reserves the right to request additional evidence from the registered entity that is not included in this RSAW. Additionally, this RSAW includes excerpts from FERC Orders and other regulatory references. The FERC Order cites are provided for ease of reference only, and this document does not necessarily include all applicable Order provisions. In the event of a discrepancy between FERC Orders, and the language included in this document, FERC Orders shall prevail.

² Compliance Assessment Date(s): The date(s) the actual compliance assessment (on-site audit, off-site spot check, etc.) occurs.

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Subject Matter Experts

Identify Subject Matter Expert(s) responsible for this Reliability Standard. (Insert additional rows if necessary)

Registered Entity Response (Required):

SME Name	Title	Organization	Requirement(s)

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R1 Supporting Evidence and Documentation

- R1.** Each Transmission Owner, Generator Owner, and Distribution Provider that owns a BES interrupting device that operated shall, within 120 calendar days of the BES interrupting device operation, identify whether its Protection System component(s) caused a Misoperation when:
 - 1.1** The BES interrupting device operation was caused by a Protection System or by manual intervention in response to a Protection System failure to operate; and
 - 1.2** The BES interrupting device owner owns all or part of the Composite Protection System; and
 - 1.3** The BES interrupting device owner identified that its Protection System component(s) caused the BES interrupting device(s) operation.
- M1.** Acceptable evidence for Requirement R1, including Parts 1.1, 1.2, and 1.3 may include, but is not limited to, the following dated documentation (electronic or hardcopy format): reports, databases, spreadsheets, emails, facsimiles, lists, logs, records, declarations, analyses of sequence of events, relay targets, Disturbance Monitoring Equipment (DME) records, test results, or transmittals.

Evidence Requested:ⁱ

Provide the following evidence, or other evidence to demonstrate compliance. Please contact your CEA with any questions regarding requested evidence.
A list of BES interrupting device operations within audit period meeting the criteria of Requirement R1 Parts 1.1 through 1.3.
Of these BES interrupting device operations, evidence such as in Measure M1 identifying whether its Protection System component(s) caused a Misoperation (or not).

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PRC-004-3, R1

This section to be completed by the Compliance Enforcement Authority

Select, all or a sample thereof, BES interrupting device operations from list of such operations.
For BES interrupting device operations, as selected by auditor, verify that such operations met the criteria outlined in Requirement R1 Parts 1.1 through 1.3. If criteria is not met, then no identification necessary and no further audit testing is required.

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	If Requirement R1 Parts 1.1 through 1.3 criteria is met for selected BES interrupting device operations, verify the entity identified whether or not its Protection System component(s) caused a Misoperation within 120 calendar days of the BES interrupting device operation.
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Note to Auditor: Auditors should use their professional judgment in selecting BES interrupting device operations for testing. Sources of such operations could include entity lists or auditor’s knowledge of events occurring on the entity’s system. In order to determine if entity identified whether there was a Misoperation (in accordance with Requirement R1) the auditor should seek evidence, such as that provided in Measure M1, associated with analyses of those BES interrupting device operations meeting Requirement R1 Parts 1.1 through 1.3.

Auditor should identify instances where an entity identified a Misoperation of its Protection System component(s), but did not determine the cause(s) of the Misoperation (within the 120 calendar day period of R1) for verification of compliance with Requirement R4.

Auditor Notes:

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R2 Supporting Evidence and Documentation

- R2.** Each Transmission Owner, Generator Owner, and Distribution Provider that owns a BES interrupting device that operated shall, within 120 calendar days of the BES interrupting device operation, notify the other owner(s) of the Protection System of the operation when:
 - 2.1** The BES interrupting device owner shares the Composite Protection System ownership with any other entity; and
 - 2.2** The BES interrupting device owner determined that a Misoperation occurred or cannot rule out a Misoperation; and
 - 2.3** The BES interrupting device owner determined that its Protection System component(s) did not cause the BES interrupting device(s) operation or cannot determine whether its Protection System components caused the BES interrupting device(s) operation.
- M2.** Acceptable evidence for Requirement R2, including Parts 2.1, 2.2, and 2.3 may include, but is not limited to, the following dated documentation (electronic or hardcopy format): emails, facsimiles, or transmittals.

Evidence Requested:ⁱ

Provide the following evidence, or other evidence to demonstrate compliance. Please contact your CEA with any questions regarding requested evidence.
A list of BES interrupting device operations meeting the criteria of Requirement R2 Parts 2.1 through 2.3.
Of these BES interrupting device operations, evidence such as in Measure M2 of entity notifying other owner(s) of the Protection System.

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PRC-004-3, R2

This section to be completed by the Compliance Enforcement Authority

Select, all or a sample thereof, BES interrupting device operations meeting Requirement R2 Parts 2.1 through 2.3.

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	For BES interrupting device operations, as selected by auditor, verify that such operations met the criteria outlined in Requirement R2 Parts 2.1 through 2.3 for notifying other owner(s) of the Protection System of the operation. If criteria is not met, then no notification is necessary and no further audit testing is required.
	For selected BES interrupting device operations requiring notifying other owner(s), verify entity notified the other owners of the operation within 120 days of the operation.
Note to Auditor: Auditors should use their professional judgment in selecting BES interrupting device operations for testing. Sources of such operations could include entity lists or auditor's knowledge of events occurring on the entity's system. In order to determine if entity notified other owners of the Protection System (in accordance with Requirement R2) auditor should seek evidence, as provided in Measure M2 associated with selected operations.	

Auditor Notes:

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R3 Supporting Evidence and Documentation

- R3.** Each Transmission Owner, Generator Owner, and Distribution Provider that receives notification, pursuant to Requirement R2, within the later of 60 calendar days of notification or 120 calendar days of the BES interrupting device(s) operation, shall identify whether its Protection System component(s) caused a Misoperation.
- M3.** Acceptable evidence for Requirement R3 may include, but is not limited to, the following dated documentation (electronic or hardcopy format): reports, databases, spreadsheets, emails, facsimiles, lists, logs, records, declarations, analyses of sequence of events, relay targets, Disturbance Monitoring Equipment (DME) records, test results, or transmittals.

Evidence Requested:ⁱ

Provide the following evidence, or other evidence to demonstrate compliance. Please contact your CEA with any questions regarding requested evidence.
List of notifications received by entity pursuant to Requirement R2.
Of these notifications, evidence such as in Measure M3 of entity identifying whether its Protection System component(s) caused a Misoperation (or not).

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PRC-004-3, R3

This section to be completed by the Compliance Enforcement Authority

	Select, all or a sample thereof, notifications received by entity pursuant to Requirement R2.
	For notifications received by entity, as selected by auditor, verify entity identified whether its Protection System component(s) caused a Misoperation within the timeframes established in Requirement R3.

Note to Auditor: Auditors should use their professional judgment in selecting notifications for audit testing.

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Sources of such notifications could include entity lists, auditor's knowledge of events occurring on the entity's system, or inquiries of neighboring entities. In order to determine if entity identified whether its Protection System component(s) caused a Misoperation, the auditor should seek evidence, as provided in Measure M3, associated with selected notifications.

Auditor should identify instances where an entity identified a Misoperation of its Protection System component(s) (in accordance with Requirement R3), but did not determine the cause(s) of the Misoperation for verification of compliance with Requirement R4.

Auditor Notes:

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R4 Supporting Evidence and Documentation

R4. Each Transmission Owner, Generator Owner, and Distribution Provider that has not determined the cause(s) of a Misoperation identified in accordance with Requirement R1 or R3 shall perform investigative action(s) to determine the cause of the Misoperation at least once every two full calendar quarters after the Misoperation was first identified, until one of the following completes the investigation:

- The identification of the cause(s) of the Misoperation; or
- A declaration that no cause was identified.

M4. Acceptable evidence for Requirement R4 may include, but is not limited to, the following dated documentation (electronic or hardcopy format): reports, databases, spreadsheets, emails, facsimiles, lists, logs, records, declarations, analyses of sequence of events, relay targets, Disturbance Monitoring Equipment (DME) records, test results, or transmittals.

Evidence Requested:ⁱ

Provide the following evidence, or other evidence to demonstrate compliance. Please contact your CEA with any questions regarding requested evidence.
List of identified Misoperations where a cause has not been identified by entity within the parameters of Requirement R1 or R3.
Of the Misoperation list, documented cause(s) of the Misoperation pursuant to Requirement R4.
Of the Misoperation list, declarations where no cause was identified.
Evidence such as in Measure M4.

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PRC-004-3, R4

This section to be completed by the Compliance Enforcement Authority

	Select identified Misoperations where a cause has not been identified by the entity.
	For each identified Misoperation without a cause selected, verify entity performed investigative action(s) to determine the cause(s) of the Misoperation at least once every two full calendar quarters after the Misoperation was first identified at the frequency prescribed in Requirement R4.

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	For completed investigative actions, verify that entity has either determined a cause or has a declaration that no cause was identified.
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Note to Auditor: Auditors should use their professional judgment in selecting Misoperations for audit testing. Sources of such Misoperations could include entity lists or knowledge gained by the auditor via their review of Requirements R1 or R3. In order to determine if entity performed the investigative action(s) established in Requirement R4, the auditor should seek evidence, as provided in Measure M4, associated with selected Misoperations.

An example of, “once every two full calendar quarters after the Misoperation was first identified” is a Misoperation where no cause is initially identified on February 1 must be investigated (per Requirement R4) by the end of September of the same year the Misoperation is first identified.

Auditor Notes:

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R5 Supporting Evidence and Documentation

- R5.** Each Transmission Owner, Generator Owner, and Distribution Provider that owns the Protection System component(s) that caused the Misoperation shall, within 60 calendar days of first identifying a cause of the Misoperation:
- Develop a Corrective Action Plan (CAP) for the identified Protection System component(s), and an evaluation of the CAP’s applicability to the entity’s other Protection Systems including other locations, or
 - Explain in a declaration why corrective actions are beyond the entity’s control or would not improve BES reliability, and that no further corrective actions will be taken.
- M5.** Acceptable evidence for Requirement R5 may include, but is not limited to, the following documentation (electronic or hardcopy format): a dated CAP or a dated declaration.

Evidence Requested:ⁱ

Provide the following evidence, or other evidence to demonstrate compliance. Please contact your CEA with any questions regarding requested evidence.
Evidence such as in Measure M5 for Misoperations with an identified cause.

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PRC-004-3, R5

This section to be completed by the Compliance Enforcement Authority

	Select, all or a sample thereof, identified Misoperations with a cause.
	For identified Misoperations with a cause, as selected by the auditor, verify entity developed a CAP and evaluation, or a declaration as described in Requirement R5.
	Verify CAP and evaluation, or declaration, was developed within 60 calendar days of the first identified cause.

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	Verify CAP contains actions and a timetable to resolve the cause(s) of the identified Misoperation and verify entity evaluated applicability of the cause to other Protection Systems and locations; or that the declaration contains why no corrective action will be taken according to Requirement R5.
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Note to Auditor: Auditors should use their professional judgment in selecting Misoperations with an identified cause for audit testing. Sources of such Misoperations for audit testing should be obtained from information learned by, or provided to, the auditor from testing of Misoperations for Requirements R1, R3, or R4.

Auditor Notes:

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R6 Supporting Evidence and Documentation

- R6.** Each Transmission Owner, Generator Owner, and Distribution Provider shall implement each CAP developed in Requirement R5, and update each CAP if actions or timetables change, until completed.
- M6.** Acceptable evidence for Requirement R6 may include, but is not limited to, the following documentation (electronic or hard copy format): dated records that document the implementation of each CAP and the completion of actions for each CAP. Evidence may also include work management program records, work orders, and maintenance records.

Evidence Requested:ⁱ

Provide the following evidence, or other evidence to demonstrate compliance. Please contact your CEA with any questions regarding requested evidence.
From the CAPs developed in Requirement R5, evidence such as in Measure M6 demonstrating implementation of each CAP.

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PRC-004-3, R6

This section to be completed by the Compliance Enforcement Authority

	Select, all or a sample thereof, CAPs for correcting the cause(s) of an identified Misoperation.
	For CAPs selected, verify implementation and that CAP was updated in accordance with Requirement R6.

Note to Auditor: Auditors should use their professional judgment in selecting CAPs for audit testing. Sources of CAPs for audit testing should be obtained from information learned by, or provided to, the auditor in Requirement R5.

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In checking for implementation, auditors should verify evidence (such as described in Measure M6) that the actions or activities prescribed by the CAP were actually performed by the entity.

Items, such as work management records, supporting the implementation of actions and timetables to implement the CAP are alternatives to a written document.

Auditor Notes:

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Additional Information:

Reliability Standard

The RSAW developer should provide the following information without hyperlinks. Update the information below as appropriate.

The full text of PRC-004-3 may be found on the NERC website (www.nerc.com) under “Program Areas & Departments”, “Reliability Standards.”

In addition to the Reliability Standard, there is an applicable Implementation Plan available on the NERC website.

In addition to the Reliability Standard, there is background information available on the NERC website.

Capitalized terms in the Reliability Standard refer to terms in the *Glossary of Terms used in NERC Reliability Standards*, which may be found on the NERC website.

Sampling Methodology [If developer deems reference applicable]

Sampling is essential for auditing compliance with NERC Reliability Standards since it is not always possible or practical to test 100% of either the equipment, documentation, or both, associated with the full suite of enforceable standards. The [Sampling Methodology Guidelines and Criteria](#), or sample guidelines, provided by the Electric Reliability Organization help to establish a minimum sample set for monitoring and enforcement uses in audits of NERC Reliability Standards.

Regulatory Language [Developer to ensure RSAW has been provided to NERC Legal for links to appropriate Regulatory Language – See example below]

E.g. FERC Order No. 742 paragraph 34: “Based on NERC’s.....”

E.g. FERC Order No. 742 Paragraph 55, Commission Determination: “We affirm NERC’s.....”

Selected Glossary Terms [If developer deems applicable]

The following Glossary terms are provided for convenience only. Please refer to the NERC web site for the current enforceable terms.

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Revision History

Version	Date	Reviewers	Revision Description
1	2/14/2014	NERC Compliance	New Document

ⁱ Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity's discretion.

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