

# Reliability Standard Audit Worksheet<sup>1</sup>

# PRC-001-3 - System Protection Coordination

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)<sup>2</sup>: Month DD, YYYY, to Month DD, YYYY

Compliance Monitoring Method: [On-site Audit | Off-site Audit | Spot Check]

Names of Auditors: Supplied by CEA

### **Applicability of Requirements**

	BA	DP	GO	GOP	IA	LSE	PA	PSE	RC	RP	RSG	то	TOP	TP	TSP
R1	Х			Χ									Х		
R2				Х									Х		
R3				Х									Х		
R4	Х												Х		

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.

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> Compliance Assessment Date(s): The date(s) the actual compliance assessment (on-site audit, off-site spot check, etc.) occurs.

# Legend:

Text with blue background:	Fixed text – do not edit
Text entry area with Green background:	Entity-supplied information
Text entry area with white background:	Auditor-supplied information



# **Findings**

(This section to be completed by the Compliance Enforcement Authority)

Req.	Finding	Summary and Documentation	<b>Functions Monitored</b>
R1			
R2			
R3			
R4			

Req.	Areas of Concern

Req.	Recommendations

Req.	Positive Observations

# **Subject Matter Experts**

Identify the Subject Matter Expert(s) responsible for this Reliability Standard.

Registered Entity Response (Required; Insert additional rows if needed):

SME Name	Title	Organization	Requirement(s)

#### **R1 Supporting Evidence and Documentation**

**R1**. Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of Protection System schemes applied in its area.

#### Registered Entity Response (Required):

**Question:** Who are the Transmission Operator, Generator Operator, and Balancing Authority personnel identified as being familiar with the purpose and limitations of Protection System schemes applied in their area? Please provide the job titles of identified personnel.

[Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.]

#### Registered Entity Response (Required):

#### **Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

#### Evidence Requestedi:

Provide a list including the job titles of identified personnel familiar with the purpose and limitations of Protection System schemes applied in their area.

Although not required, training may be used as evidence for compliance with this requirement. See Note to Auditor below.

#### Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

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

#### Compliance Assessment Approach Specific to PRC-001-3, R1

This section to be completed by the Compliance Enforcement Authority

Verify the identified personnel are familiar with:

The purpose of relay protection schemes applied in its area.

The limitations of relay pProtection schemes applied in its area.

**Note to Auditor**: Protection System schemes shall include, but are not limited to, Remedial Action Schemes (RASs) within its area. See NERC Glossary of Terms for definition of RASs.

Auditors shall use their professional judgment to determine whether identified personnel are familiar with the purpose and limitations of Protection System schemes applied in its area. Identified Generator Operator personnel should be familiar with the purpose and limitations of its generator Protection System and any associated generator interconnection Facilities. In general, the purpose of Protection System schemes relates to what type of fault the Protection System will detect (ground fault, phase to phase fault, failure to clear fault, backup etc.) and how the detection is accomplished (measure impedance of fault, differential measurement, etc.). Examples of limitations could include, but are not limited to, a Zone 1 relay typically being set to detect faults up to about 80% of a line, or a transformer differential relay only detecting a fault between two current transformers on each side of the transformer bank. Evidence may include, but is not limited to, training records and personnel interviews, training with an overview of the different types of protection used on the system for generators, transmission line(s), and transformers on the entity's system. Also, an overview of the zones of protection, fault locations and which relay would operate based on the location is desirable. If the entity has RASs, any training could include an overview of the RAS's operation, arming and disarming of the RAS and how to verify which mode is in service. Documentation of any training provided should be specific training on the purpose of Protection Systems and limitations associated with the entity's system. Auditors need reasonable assurance that the required familiarity exists at the functional level (Transmission Operator, Balancing Authority, and Generator Operator) of the entity. An interview of all identified personnel, or a statistical sample thereof, may be performed, but is not required.

Auditor Notes:	

R2 Supporting Evidence and Documentatio	R2	Supp	orting	Evidence	and	Documentatio
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- **R2**. Each Generator Operator and Transmission Operator shall notify reliability entities of relay or equipment failures as follows:
- **R2.1** If a protective relay or equipment failure reduces system reliability, the Generator Operator shall notify its Transmission Operator and Host Balancing Authority. The Generator Operator shall take corrective action as soon as possible.
- **R2.2** If a protective relay or equipment failure reduces system reliability, the Transmission Operator shall notify its Reliability Coordinator and affected Transmission Operators and Balancing Authorities. The Transmission Operator shall take corrective action as soon as possible.

Registered Entity	y Response	Requ	ired)	<b>)</b> :
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#### Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	le Name	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Re	eviewed (This section t	to be comple	ted by the Co	mpliance Enfo	orcement Authority):

supplied evidence, including links to the appropriate page, are recommended.

# Compliance Assessment Approach Specific to PRC-001-3, R2

This section to be completed by the Compliance Enforcement Authority

	Verify the entity took the following actions related to a relay or equipment failure that reduced system			
	reliability:			
	(Part 2.1) Generator Operator notified its Transmission Operator and Host Balancing Authority and;			
	Generator Operator took corrective action as soon as possible.			
	(Part 2.2) Transmission Operator notified its Reliability Coordinator and affected Transmission Operators			
	and Balancing Authorities and;			
	Transmission Operator took corrective action as soon as possible.			
Note to Auditor:				

Auditor Notes:		

#### **R3 Supporting Evidence and Documentation**

- **R3.** A Generator Operator or Transmission Operator shall coordinate changes in generation, transmission, load or operating conditions that could require changes in the Protection Systems of others:
- **R3.1** Each Generator Operator shall notify its Transmission Operator in advance of changes in generation or operating conditions that could require changes in the Transmission Operator's Protection Systems.
- **R3.2** Each Transmission Operator shall notify neighboring Transmission Operators in advance of changes in generation, transmission, load, or operating conditions that could require changes in the other Transmission Operators' Protection Systems.

#### Registered Entity Response (Required):

#### **Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

#### Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

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

#### Compliance Assessment Approach Specific to PRC-001-3, R3

This section to be completed by the Compliance Enforcement Authority

(R3) Verify each Generator Operator or Transmission Operator coordinated changes in generation, transmission, load or operating conditions that could require changes in the Protection Systems of others. (Part 3.1) Verify the Generator Operator notified its Transmission Operator in advance of changes in generation or operating conditions that could require changes in the Transmission Operator's Protection Systems.

(Part 3.2) Verify the Transmission Operator notified neighboring Transmission Operators in advance of changes in generation, transmission, load, or operating conditions that could require changes in the other Transmission Operators' Protection Systems.

Note to Auditor:	
Auditor Notes:	
Additor Notes:	

R4 Supporting Evidence and Documentat
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**R4**. Each Transmission Operator and Balancing Authority shall monitor the status of each Remedial Action Scheme in their area, and shall notify affected Transmission Operators and Balancing Authorities of each change in status.

M1. Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, documentation, electronic logs, computer printouts, or computer demonstration or other equivalent evidence that will be used to confirm that it monitors the Remedial Action Schemes in its area. (Requirement 4 Part 1)

M2.Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, phone records, electronic-notifications or other equivalent evidence that will be used to confirm that it notified affected Transmission Operator and Balancing Authorities of changes in status of one of its Remedial Action Schemes. (Requirement 4 Part 2)

Question: Does the entity have a Remedial Action Scheme in their area? ☐ Yes ☐ No
If yes, provide a list of such schemes. Auditor may sample this list and request evidence of monitoring an
notification of change in status to the proper entities for the list of schemes selected.

### Registered Entity Response (Required):

#### **Compliance Narrative:**

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

#### Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

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

# Compliance Assessment Approach Specific to PRC-001-3, R4

This section to be completed by the Compliance Enforcement Authority

		Verify the entity monitors the status of each Remedial Action Scheme in their area.		
		Verify the entity notified affected Transmission Operators and Balancing Authorities of each change in		
		status.		
Note to Auditor:				
Auditor Notes:				

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#### Additional Information:

#### **Reliability Standard**

Insert embedded Standard file here and Implementation Plan (if required)

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

In addition to the Reliability Standard, there is an applicable Implementation Plan available on the NERC Web Site. (Remove this statement if embedded file included)

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

Capitalized terms in the Reliability Standard refer to terms in the NERC Glossary, which may be found on the NERC Web Site.

#### 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 (see NERC website), 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.

# **Revision History for RSAW**

٧	ersion	Date	Reviewers	Revision Description
	1	04/15/2015	RSAW Working Group, Standards Drafting Team	New Document

<sup>&</sup>lt;sup>i</sup> 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.

