

**Reliability Standard Audit Worksheet[[1]](#footnote-2)**

# IRO-001-4 – Reliability Coordination – Responsibilities

***This section to be completed by the Compliance Enforcement Authority.***

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| --- | --- |
| **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]](#footnote-3):** | 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

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|  | **BA** | **DP** | **GO** | **GOP** | **IA** | **LSE** | **PA** | **PSE** | **RC** | **RP** | **RSG** | **TO** | **TOP** | **TP** | **TSP** |
| **R1** |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |
| **R2** | X | X |  | X |  |  |  |  |  |  |  |  | X |  |  |
| **R3** | X | X |  | X |  |  |  |  |  |  |  |  | X |  |  |

**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)**

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| --- | --- | --- | --- |
| Req. | Finding | Summary and Documentation | Functions Monitored |
| R1 |  |  |  |
| R2 |  |  |  |
| R3 |  |  |  |

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| --- | --- |
| Req. | Areas of Concern |
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| Req. | Recommendations |
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| Req. | Positive Observations |
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Subject Matter Experts

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

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

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| --- | --- | --- | --- |
| **SME Name** | **Title** | **Organization** | **Requirement(s)** |
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R1 Supporting Evidence and Documentation

1. Each Reliability Coordinator shall act to address the reliability of its Reliability Coordinator Area via direct actions or by issuing Operating Instructions.
2. Each Reliability Coordinator shall have and provide evidence which may include but is not limited to dated operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it acted to address the reliability of its Reliability Coordinator Area via direct actions or by issuing Operating Instructions.

**Compliance Narrative (Required):**

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 Requested[[3]](#endnote-2):

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| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or equivalent documentation associated with events requested by auditor. |

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

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Compliance Assessment Approach Specific to IRO-001-4, R1

***This section to be completed by the Compliance Enforcement Authority***

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|  | (R1) For all, or a sample of, BES events selected by auditor, review evidence and verify entity acted to address the reliability of its Reliability Coordinator Area via direct actions or by issuing Operating Instructions. |
| **Note to Auditor**: Auditors are advised to monitor compliance with Requirement R1 during events, due to the importance of issuing Operating Instructions in such instances. Auditors can obtain a population of events for sampling from NERC’s, or the Regional Entity’s, records of mandatory event reports, other information available at the Regional Entities, or a query of the entity. Auditors are encouraged to monitor compliance during the most critical events on the entity’s system occurring during the compliance monitoring period. | |

Auditor Notes:

R2 Supporting Evidence and Documentation

1. Each Transmission Operator, Balancing Authority, Generator Operator, and Distribution Provider shall comply with its Reliability Coordinator’s Operating Instructions unless compliance with the Operating Instructions cannot be physically implemented or unless such actions would violate safety, equipment, regulatory, or statutory requirements.
2. Each Transmission Operator, Balancing Authority, Generator Operator, and Distribution Provider shall have and provide evidence which may include but is not limited to dated operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it complied with its Reliability Coordinator's Operating Instructions, unless the instruction could not be physicallyimplemented, or such actions would have violated safety, equipment, regulatory or statutory requirements. In such cases, the Transmission Operator, Balancing Authority, Generator Operator, or Distribution Provider shall have and provide copies of the safety, equipment, regulatory, or statutory requirements as evidence for not complying with the Reliability Coordinator’s Operating Instructions. If such a situation has not occurred, the Transmission Operator, Balancing Authority, Generator Operator, or Distribution Provider may provide an attestation.

**Registered Entity Response (Required):**

**Question:**  Did the entity receive an Operating Instruction from the Reliability Coordinator during the audit period?

Yes  No

If No, state how this was ascertained. If yes, provide a list of instances of receiving Operating Instructions from the Reliability Coordinator.

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

**Compliance Narrative (Required):**

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:

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| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or equivalent documentation. |
| Copies of the safety, equipment, regulatory, or statutory requirements as evidence for not complying with the Reliability Coordinator’s Operating Instructions. |

Registered Entity Evidence (Required):

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

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Compliance Assessment Approach Specific to IRO-001-4, R2

***This section to be completed by the Compliance Enforcement Authority***

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|  | (R2) For a sample of events, review evidence to determine if the entity received Operating Instructions from the Reliability Coordinator. For all, or a sample of, events selected by the auditor verify the following: |
|  | (R2) Review evidence that the entity complied with the Reliability Coordinator’s Operating Instructions. |
|  | (R2) If the entity determined that it could not comply with the Reliability Coordinator’s Operating Instructions, examine evidence to verify that the entity’s compliance with the Operating Instructions would have violated safety, equipment, regulatory, or statutory requirements. |
| **Note to Auditor**: Auditors are advised to monitor compliance with Requirement R2 during events, due to the likelihood and importance of complying with Operating Instructions during such instances. Auditors can obtain a population of events for sampling from NERC’s, or the Regional Entity’s, records of mandatory event reports, other information available at the Regional Entities, or a query of the entity. Auditors are encouraged to monitor compliance during the most critical events on the entity’s system occurring during the compliance monitoring period. | |

Auditor Notes:

R3 Supporting Evidence and Documentation

1. Each Transmission Operator, Balancing Authority, Generator Operator, and Distribution Provider shall inform its Reliability Coordinator of its inability to perform the Operating Instruction issued by its Reliability Coordinator in Requirement R1.
2. Each Transmission Operator, Balancing Authority, Generator Operator, and Distribution Provider shall have and provide evidence which may include but is not limited to dated operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or equivalent documentation, that will be used to determine that it informed its Reliability Coordinator of its inability to perform an Operating Instruction issued by its Reliability Coordinator in Requirement R1.

**Compliance Narrative (Required):**

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:

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| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or equivalent documentation. |

Registered Entity Evidence (Required):

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

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Compliance Assessment Approach Specific to IRO-001-4, R3

***This section to be completed by the Compliance Enforcement Authority***

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|  | (R3) For all, or a sample of, events selected by the auditor, determine if the entity was not able to comply with Operating Instructions issued by its Reliability Coordinator. Review evidence and verify that the entity then informed its Reliability Coordinator of the inability to perform the Operating Instructions. |
| **Note to Auditor**: Auditors are advised to monitor compliance with Requirement R3 during events, due to the likelihood and importance of complying with Operating Instructions during such instances. Auditors can obtain a population of events for sampling from NERC’s, or the Regional Entity’s, records of mandatory event reports, other information available at the Regional Entities, or a query of the entity. Auditors are encouraged to monitor compliance during the most critical events on the entity’s system, occurring during the compliance monitoring period.  Samples selected for Requirement R3 should consider Operating Instructions received by the entity under Requirement R2 that the entity did not comply with. | |

Auditor Notes:

Additional Information:

Reliability Standard



The full text of IRO-001-4 may be found on the NERC Web Site (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 Web Site.

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.

Regulatory Language

[*Transmission Operations Reliability Standards and Interconnection Reliability Operations and Coordination Reliability Standards,* Final Rule, Order No. 817, 153 FERC ¶ 61,178 (2015).](http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Order%20No.%20817%20Approving%20TOP%20IRO%20Reliability%20Standards.pdf)

5. The Commission approved the initial TOP and IRO Reliability Standards in Order No. 693. On April 16, 2013, in Docket No. RM13-14-000, NERC submitted for Commission approval three revised TOP Reliability Standards to replace the eight currently-effective TOP standards.8 Additionally, on April 16, 2013, in Docket No. RM13-15-000, NERC submitted for Commission approval four revised IRO Reliability Standards to replace six currently-effective IRO Reliability Standards. On November 21, 2013, the Commission issued the Remand NOPR in which the Commission expressed concern that NERC had “removed critical reliability aspects that are included in the currently-effective standards without adequately addressing these aspects in the proposed standards.” The Commission identified two main concerns and asked for clarification and comment on a number of other issues. Among other things, the Commission expressed concern that the proposed TOP Reliability Standards did not require transmission operators to plan and operate within all SOLs, which is a requirement in the currently-effective standards. In addition, the Commission expressed concern that the proposed IRO Reliability Standards did not require outage coordination.

13. Pursuant to section 215(d) of the FPA, we adopt our NOPR proposal and approve NERC’s revisions to the TOP and IRO Reliability Standards, including the associated definitions, violation risk factors, violation severity levels, and implementation plans, as just, reasonable, not unduly discriminatory or preferential and in the public interest.

14. We also determine that the proposed TOP and IRO Reliability Standards should improve reliability by defining an appropriate division of responsibilities between reliability coordinators and transmission operators.

17. Furthermore, the revised definitions of operational planning analysis and real-time assessment are critical components of the proposed TOP and IRO Reliability Standards and, together with the definitions of SOLs, IROLs and operating plans, work to ensure that reliability coordinators, transmission operators and balancing authorities plan and operate the bulk electric system within all SOLs and IROLs to prevent instability, uncontrolled separation, or cascading. In addition, the revised definitions of operational planning analysis and real-time assessment address other concerns raised in the Remand NOPR as well as multiple recommendations in the 2011 Southwest Outage Blackout Report.

19. However, as we discuss below we direct NERC to modify the standards to include transmission operator monitoring of non-BES facilities, and to specify that data exchange capabilities include redundancy and diverse routing; as well as testing of the alternate or less frequently used data exchange capability, within 18 months of the effective date of this Final Rule.

Selected Glossary Terms

Please refer to the NERC web site for the current enforceable terms.

Specific Glossary term suggested to be included in this RSAW:

**Operating Instruction** (effective 7/1/2016):

A command by operating personnel responsible for the Real-time operation of the interconnected Bulk Electric System to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. (A discussion of general information and of potential options or alternatives to resolve Bulk Electric System operating concerns is not a command and is not considered an Operating Instruction.)

Revision History for RSAW

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| --- | --- | --- | --- |
| **Version** | **Date** | **Reviewers** | **Revision Description** |
| 1 | 06/20/2014 | Initial Posting | New Document |
| 2 | 08/29/2014 | NERC Compliance, NERC Standards, RSAWTF | Revisions for updated standard language and comments received during comment period. |
| 3 | 10/16/2014 | NERC Compliance, NERC Standards | Revisions based on comments received during second comment period. |
| 4 | 11/3/2016 | NERC Compliance Assurance, RSAWTF | Revised for consistency with the final approved Standard. |

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 applicable 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. [↑](#footnote-ref-2)
2. Compliance Assessment Date(s): The date(s) the actual compliance assessment (on-site audit, off-site spot check, etc.) occurs. [↑](#footnote-ref-3)
3. 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. [↑](#endnote-ref-2)