

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

# IRO-010-4 – Reliability Coordinator Data Specification and Collection

***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-2):** | 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** | **PA** | **RC** | **RP** | **RSG** | **TO** | **TOP** | **TP** | **TSP** |
| **R1** |  |  |  |  |  | X |  |  |  |  |  |  |
| **R2** |  |  |  |  |  | X |  |  |  |  |  |  |
| **R3** | X | X | X | X |  | X |  |  | X | X |  |  |

**Legend:**

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| --- | --- |
| 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. The Reliability Coordinator shall maintain a documented specification for the data necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. The data specification shall include but not be limited to:
   1. A list of data and information needed by the Reliability Coordinator to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments including non-BES data and external network data, as deemed necessary by the Reliability Coordinator.
   2. Provisions for notification of current Protection System and Remedial Action Scheme (RAS) status or degradation that impacts System reliability.
   3. Provisions for notification of BES generating unit(s) during local forecasted cold weather to include:
      1. Operating limitations based on
         1. capability and availability;
         2. fuel supply and inventory concerns;
         3. fuel switching capabilities; and
         4. environmental constraints
      2. Generating unit(s) minimum:
         1. design temperature; or
         2. historical operating temperature; or
         3. current cold weather performance temperature determined by an engineering analysis.
   4. A periodicity for providing data.
   5. The deadline by which the respondent is to provide the indicated data.
2. The Reliability Coordinator shall make available its dated, current, in force documented specification for data.

**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.

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Evidence Requested[[3]](#endnote-1):

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| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Documented specifications for the data necessary for the entity to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. |

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-010-4, R1

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

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|  | (R1) Review the entity’s specification for the data necessary to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments and verify that its specification includes: |
|  | (Part 1.1) A list of data and information needed by the entity to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments including non-BES data and external network data, as deemed necessary by the RC. |
|  | (Part 1.2) Provisions for notification of current Protection System and Remedial Action Scheme (RAS) status or degradation that impacts System reliability. |
|  | (Part 1.3) Provisions for notification of BES generating unit(s) during local forecasted cold  weather including the following: |
|  | (Part 1.3.1.1) Operating limitations based on capability and availability |
|  | (Part 1.3.1.2) Operating limitations based on fuel supply and inventory concerns |
|  | (Part 1.3.1.3) Operating limitations based on fuel switching capabilities |
|  | (Part 1.3.1.4) Operating limitations based on environmental constraints |
|  | (Part 1.3.2) Generating unit(s) minimum temperature based on one of the following: |
|  | (Part 1.3.2.1) design temperature; or |
|  | (Part 1.3.2.2) historical operating temperature; or |
|  | (Part 1.3.2.3) current cold weather performance temperature determined by an engineering analysis. |
|  | (Part 1.4) Periodicity for providing data. |
|  | (Part 1.5) Deadline by which the respondent is to provide the indicated data. |
| **Note to Auditor:** RC specification must request Generating unit(s) minimum operating temperature. The GO has the option to establish a minimum operating temperature using the methods of 1.3.2.1 – 1.3.2.3 | |

Auditor Notes:

R2 Supporting Evidence and Documentation

1. The Reliability Coordinator shall distribute its data specification to entities that have data required by the Reliability Coordinator’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.
2. The Reliability Coordinator shall make available evidence that it has distributed its data specification to entities that have data required by the Reliability Coordinator’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. This evidence could include but is not limited to web postings with an electronic notice of the posting, dated operator logs, voice recordings, postal receipts showing the recipient, date and contents, or e-mail records.

**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.

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Evidence Requestedi:

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| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Evidence that the entity has distributed its data specification to entities that have data required by the entity’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. This evidence could include, but is not limited to: 1) web postings with an electronic notice of the posting, 2) dated operator logs, 3) voice recordings, 4) postal receipts showing the recipient, date, and contents, or 5) e-mail records. |
| Documented specifications for the data necessary for the entity to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. |

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-010-4 R2

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

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|  | (R2) Review evidence that demonstrates that the entity distributed its data specifications to other entities that have data required by the entity’s Operational Planning Analyses, Real-time monitoring, and Real-time Assessment. |
| **Note to Auditor:** | |

Auditor Notes:

R3 Supporting Evidence and Documentation

1. Each Reliability Coordinator, Balancing Authority, Generator Owner, Generator Operator, Transmission Operator, Transmission Owner, and Distribution Provider receiving a data specification in Requirement R2 shall satisfy the obligations of the documented specifications using:
   1. A mutually agreeable format
   2. A mutually agreeable process for resolving data conflicts
   3. A mutually agreeable security protocol
2. The Reliability Coordinator, Balancing Authority, Generator Owner, Generator Operator, Reliability Coordinator, Transmission Operator, Transmission Owner, and Distribution Provider receiving a data specification in Requirement R2 shall make available evidence that it satisfied the obligations of the documented specification using the specified criteria. Such evidence could include but is not limited to electronic or hard copies of data transmittals or attestations of receiving entities.

**Registered Entity Response (Required):**

**Question:** Did entity have any data conflicts during the compliance monitoring period?  Yes  No

If Yes, describe how conflicts were resolved and provide examples. If No, proceed to the Compliance Narrative section below.

[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.

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Evidence Requestedi:

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| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Copies of data specification(s) received by entity. |
| Copies of the data response provided by the entity. |

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.** |

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| --- | --- | --- | --- | --- | --- |
| **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-010-4, R3

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

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|  | (R3) Review data specifications received by the entity and select a sample of instances where the entity had to satisfy obligations of the document. |
|  | (R3) For each instance selected by the auditor above, review evidence and verify the entity satisfied the obligation in accordance with Parts 3.1 – 3.3. |
| **Note to Auditor:** | |

Auditor Notes:

Additional Information:

Reliability Standard



The full text of IRO-010-4 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

Order Approving Cold Weather Reliability Standards, 176 FERC ¶ 61,119 (2021).

By [Letter Order in Docket No. RD20-4-000 on October 30, 2020](https://www.nerc.com/FilingsOrders/us/FERCOrdersRules/RD20-4-000_AD_Signature.pdf), FERC approved proposed Reliability Standard IRO-010-3 as part of the project to align Reliability Standards with Registration.

Revision History for RSAW

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| **Version** | **Date** | **Reviewers** | **Revision Description** |
| 1 | 02/14/2023 | NERC Compliance Assurance, RSAWTF | New Document |

1. NERC developed this Reliability Standard Audit Worksheet (RSAW) language 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 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. [↑](#footnote-ref-1)
2. Compliance Assessment Date(s): The date(s) the actual compliance assessment (on-site audit, off-site spot check, etc.) occurs. [↑](#footnote-ref-2)
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-1)