

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

# TOP-002-5 – Operations Planning

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]](#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

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **BA** | **DP** | **GO** | **GOP** | **IA** | **LSE** | **PA** | **PSE** | **RC** | **RP** | **RSG** | **TO** | **TOP** | **TP** | **TSP** |
| **R1** |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |
| **R2** |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |
| **R3** |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |
| **R4** | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **R5** | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **R6** |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |
| **R7** | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **R8** | 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)

|  |  |  |  |
| --- | --- | --- | --- |
| **Req.** | **Finding** | **Summary and Documentation** | **Functions Monitored** |
| **R1** |  |  |  |
| **R2** |  |  |  |
| **R3** |  |  |  |
| **R4** |  |  |  |
| **R5** |  |  |  |
| **R6** |  |  |  |
| **R7** |  |  |  |
| **R8** |  |  |  |

|  |  |
| --- | --- |
| **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)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall have an Operational Planning Analysis that will allow it to assess whether its planned operations for the next day within its Transmission Operator Area will exceed any of its System Operating Limits (SOLs).
3. Each Transmission Operator shall have evidence of a completed Operational Planning Analysis. Such evidence could include but is not limited to dated power flow study results.

**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-1):

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated power flow study results and materials supporting the performance of an Operational Planning Analysis. |

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 TOP-002-5, R1

This section to be completed by the Compliance Enforcement Authority

|  |  |
| --- | --- |
|  | (R1) Review documentary evidence that demonstrates that the entity has Operational Planning Analyses that will allow it to assess whether its planned operations for the next day within its TOP Area will exceed any of its SOLs. |
| **Note to Auditor:**  See the definition of Operational Planning Analysis below to ensure all components have been included. | |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall have an Operating Plan(s) for next-day operations to address potential System Operating Limit (SOL) exceedances identified as a result of its Operational Planning Analysis as required in Requirement R1.
3. Each Transmission Operator shall have evidence that it has an Operating Plan to address potential System Operating Limits (SOLs) exceedances identified as a result of the Operational Planning Analysis performed in Requirement R1. Such evidence could include but it is not limited to plans for precluding operating in excess of each SOL that was identified as a result of the Operational Planning Analysis.

**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:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Operating Plans for precluding operating in excess of each SOL that was identified as a result of the Operational Planning Analysis. |
| Operating Planning Analyses results. |

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 TOP-002-5, R2

This section to be completed by the Compliance Enforcement Authority

|  |  |
| --- | --- |
|  | (R2) Review evidence demonstrating that the entity’s Operating Plan addressed potential SOL exceedances that were identified as a result of the Operational Planning Analysis it performed in Requirement R1. |
| **Note to Auditor:** | |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall notify entities identified in the Operating Plan(s) cited in Requirement R2 as to their role in those plan(s).
3. Each Transmission Operator shall have evidence that it notified entities identified in the Operating Plan(s) cited in Requirement R2 as to their role in the plan(s). Such evidence could include but is not limited to dated operator logs, or email 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.

Evidence Requested i:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated operator logs, email, correspondence, or other evidence, that demonstrates that the entity notified entities identified in the Operating Plan(s) cited in Requirement R2 as to their role in those plan(s). |
| Operating Plan(s) for next-day operations per Requirement R2. |

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 TOP-002-5, R3

This section to be completed by the Compliance Enforcement Authority

|  |  |
| --- | --- |
|  | (R3) Review logs or correspondence that demonstrates that the Transmission Operator notified entities identified in the Operating Plan(s) cited in Requirement R2 as to their role in those plan(s). |
| **Note to Auditor:** | |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority shall have an Operating Plan(s) for the next day that addresses:
   1. Expected generation resource commitment and dispatch
   2. Interchange scheduling
   3. Demand patterns
   4. Capacity and energy reserve requirements, including deliverability capability
3. Each Balancing Authority shall have evidence that it has developed a plan to operate within the criteria identified. Such evidence could include but is not limited to dated operator logs or email 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.

Evidence Requested i:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Entity’s Operating Plan(s) for the next day that address Parts 4.1, 4.2, 4.3, and 4.4 |

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 TOP-002-5, R4

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

|  |  |
| --- | --- |
|  | (R4) Review the Operating Plan(s) for the next day and verify that it addresses: |
|  | (Part 4.1) expected generation resource commitment and dispatch. |
|  | (Part 4.2) Interchange scheduling. |
|  | (Part 4.3) demand patterns. |
|  | (Part 4.4) capacity and energy reserve requirements, including deliverability capability. |
| **Note to Auditor:** | |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority shall notify entities identified in the Operating Plan(s) cited in Requirement R4 as to their role in those plan(s).
3. Each Balancing Authority shall have evidence that it notified entities identified in the plan(s) cited in Requirement R4 as to their role in the plan(s). Such evidence could include but is not limited to dated operator logs or email 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.

Evidence Requested i:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated operator logs or email correspondence that demonstrates that the entity notified entities identified in the Operating Plan(s) cited in Requirement R4 as to their role in those plan(s). |
| Entity’s Operating Plan(s) for the next day. |

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 TOP-002-5, R5

This section to be completed by the Compliance Enforcement Authority

|  |  |
| --- | --- |
|  | (R5) Review logs or correspondence that demonstrates that the entity notified entities identified in the Operating Plan(s) cited in Requirement R4 as to their role in those plan(s). |
| **Note to Auditor:** | |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall provide its Operating Plan(s) for next day operations identified in Requirement R2 to its Reliability Coordinator.
3. Each Transmission Operator shall have evidence that it provided its Operating Plan(s) for next day operations identified in Requirement R2 to its Reliability Coordinator. Such evidence could include but is not limited to dated operator logs or email 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.

Evidence Requested i:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Dated operator logs or email correspondence that demonstrates that the entity provided its Operating Plan(s) for next day operations identified in Requirement R2 to its Reliability Coordinator. |

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 TOP-002-5, R6

This section to be completed by the Compliance Enforcement Authority

|  |  |
| --- | --- |
|  | (R6) Review correspondence that demonstrates that the entity provided its Operating Plan(s) for next day operations identified in Requirement R2 to its Reliability Coordinator. |
| **Note to Auditor:** | |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority shall provide its Operating Plan(s) for next day operations identified in Requirement R4 to its Reliability Coordinator.
3. Each Balancing Authority shall have evidence that it provided its Operating Plan(s) for next day operations identified in Requirement R4 to its Reliability Coordinator. Such evidence could include but is not limited to dated operator logs or email 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.

Evidence Requested i:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| Correspondence that demonstrates that the entity provided its Operating Plan(s) for next day operations identified in Requirement R4 to its Reliability Coordinator. |

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 TOP-002-5, R7

This section to be completed by the Compliance Enforcement Authority

|  |  |
| --- | --- |
|  | (R7) Review logs or correspondence that demonstrates that the entity provided its Operating Plan(s) for next day operations identified in Requirement R4 to its Reliability Coordinator. |
| **Note to Auditor:** | |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority shall have an extreme cold weather Operating Process for its Balancing Authority Area, addressing preparations for and operations during extreme cold weather periods. The extreme cold weather Operating Process shall include, but is not limited to:
   1. A methodology for identifying an extreme cold weather period within each Balancing Authority Area;
   2. A methodology to determine an adequate reserve margin during the extreme cold weather period considering the generating unit(s) operating limitations in previous extreme cold weather periods that includes, but is not limited to:
      1. Capability and availability;
      2. Fuel supply and inventory concerns;
      3. Start-up issues;
      4. Fuel Switching capabilities; and
      5. Environmental constraints.
   3. A methodology to determine a five-day hourly forecast during the identified extreme cold weather periods that includes, but is not limited to:
      1. Expected generation resource commitment and dispatch;
      2. Demand patterns;
      3. Capacity and energy reserve requirements, including deliverability capability; and
      4. Weather forecast
3. Each Balancing Authority shall have evidence that it has developed an extreme cold weather Operating Process in accordance with Requirement R8.

**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 i:

|  |
| --- |
| **Provide the following evidence, or other evidence to demonstrate compliance.** |
| An extreme cold weather Operating Process pursuant to Requirement R8. |

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 TOP-002-5, R8

This section to be completed by the Compliance Enforcement Authority

|  |  |
| --- | --- |
|  | (R8) Review extreme cold weather Operating Process and verify the following is included; |
|  | (Part 8.1) Methodology for identifying an extreme cold weather period; |
|  | (Part 8.2) Methodology to determine adequate reserve margin during the extreme cold weather period considering the generating unit(s) operating limitations in previous extreme cold weather periods that includes Parts 8.2.1 to 8.2.5. |
|  | (Part 8.2.1) Capability and availability; |
|  | (Part 8.2.2) Fuel supply and inventory concerns; |
|  | (Part 8.2.3) Start-up issues; |
|  | (Part 8.2.4) Fuel Switching capabilities; and |
|  | (Part 8.2.5) Environmental constraints |
|  | (Part 8.3) Methodology to determine a five-day hourly forecast during the identified extreme cold weather periods that includes Parts 8.3.1 to 8.3.4 |
|  | (Part 8.3.1) Expected generation resource commitment and dispatch; |
|  | (Part 8.3.2) Demand patterns; |
|  | (Part 8.3.3) Capacity and energy reserve requirements, including deliverability capability; and |
|  | (Part 8.3.4) Weather forecast |
| **Note to Auditor:** | |

Auditor Notes:

Additional Information:

Reliability Standard



The full text of TOP-002-5 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.

Regulatory Language

Reliability Standard TOP-002-5 was approved by FERC in the following order: *Order Approving Extreme Cold Weather Reliability Standards EOP-011-4 and TOP-002-5*, 186 FERC ¶ 61,115 (2024)

Selected Glossary Terms

Operation Planning Analysis: An evaluation of projected system conditions to assess anticipated (pre-Contingency) and potential (post-Contingency) conditions for next-day operations. The evaluation shall reflect applicable inputs including, but not limited to, load forecasts; generation output levels; Interchange; known Protection System and Remedial Action Scheme status or degradation, functions, and limitations; Transmission outages; generator outages; Facility Ratings; and identified phase angle and equipment limitations. (Operational Planning Analysis may be provided through internal systems or through third-party services.)

Revision History for RSAW

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Reviewers** | **Revision Description** |
| 1 | 6/20/2014 | Initial Posting | New Document |
| 2 | 8/29/2014 | NERC Compliance, NERC Standards, RSAWTF | Revisions for updated standard language and comments received during comment period. |
| 3 | 1/20/2017 | NERC Compliance Assurance, RSAW Task Force | Revisions for comments received during second comment period. |
| 4 | 9/1/2024 | NERC Compliance Assurance, OPCTF | Revisions for updated standard language |

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. [↑](#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)