

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

TOP-001-3 – Transmission Operations

***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

|  | **BA** | **DP** | **GO** | **GOP** | **PA/PC** | **RC** | **RP** | **RSG** | **TO** | **TOP** | **TP** | **TSP** |
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| **R1** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R2** | X |  |  |  |  |  |  |  |  |  |  |  |
| **R3** | X | X |  | X |  |  |  |  |  |  |  |  |
| **R4** | X | X |  | X |  |  |  |  |  |  |  |  |
| **R5** |  | X |  | X |  |  |  |  |  | X |  |  |
| **R6** |  | X |  | X |  |  |  |  |  | X |  |  |
| **R7** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R8** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R9** | X |  |  |  |  |  |  |  |  | X |  |  |
| **R10** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R11** | X |  |  |  |  |  |  |  |  |  |  |  |
| **R12** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R13** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R14** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R15** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R16** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R17** | X |  |  |  |  |  |  |  |  |  |  |  |
| **R18** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R19** |  |  |  |  |  |  |  |  |  | X |  |  |
| **R20** | 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** |  |  |  |
| **R4** |  |  |  |
| **R5** |  |  |  |
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| **R7** |  |  |  |
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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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1. Supporting Evidence and Documentation
2. Each Transmission Operator shall act to maintain the reliability of its Transmission Operator Area via its own actions or by issuing Operating Instructions.
3. Each Transmission Operator 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 maintain the reliability of its Transmission Operator Area via its own 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: i

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence, which may include but is not limited to, operator logs, dated records, dated and time-stamped voice recordings or dated transcripts of voice recordings, electronic communications, or equivalent documentation that the Transmission Operator acted, or issued Operating Instructions, to maintain reliability within its Transmission Operator Area. |

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 TOP-001-3, R1

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

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|  | (R1) For an auditor selected sample of operating conditions that required action to maintain reliability, review evidence and verify the entity acted, or issued Operating Instructions, to maintain the reliability of its Transmission Operator Area. |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority shall act to maintain the reliability of its Balancing Authority Area via its own actions or by issuing Operating Instructions.
3. Each Balancing Authority 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 maintain the reliability of its Balancing Authority Area via its own 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: i

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| 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 the entity acted, or issued Operating Instructions, to maintain reliability within its Balancing Authority Area. |

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 TOP-001-3, R2

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

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|  | (R2) For an auditor selected sample of operating conditions that required action to maintain reliability, review evidence and verify the entity acted, or issued Operating Instructions to maintain the reliability of its Balancing Authority Area. |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority, Generator Operator, and Distribution Provider shall comply with each Operating Instruction issued by its Transmission Operator(s), unless such action cannot be physically implemented or it would violate safety, equipment, regulatory, or statutory requirements.
3. Each Balancing Authority, Generator Operator, and Distribution Provider shall make available upon request, evidence that it complied with each Operating Instruction issued by the Transmission Operator(s) unless such action could not be physically implemented or it would have violated safety, equipment, regulatory, or statutory requirements. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence in electronic or hard copy format. In such cases, the Balancing Authority, Generator Operator, and Distribution Provider shall have and provide copies of the safety, equipment, regulatory, or statutory requirements as evidence for not complying with the Transmission Operator’s Operating Instruction. If such a situation has not occurred, the Balancing Authority, Generator Operator, or Distribution Provider may provide an attestation.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence demonstrating the entity complied with each Operating Instruction issued by its Transmission Operator(s), unless such action could not be physically implemented or would have violated safety, equipment, regulatory, or statutory requirements. |
| If applicable, evidence demonstrating why the entity did not comply with the Transmission Operator’s Operating Instruction. |

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 TOP-001-3, R3

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

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|  | (R3) For all, or a sample of Operating Instructions selected by the auditor, review evidence and verify the entity complied with Operating Instructions issued by its Transmission Operator(s) unless such action could not be physically implemented or it would have violated safety, equipment, regulatory, or statutory requirements.  |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority, Generator Operator, and Distribution Provider shall inform its Transmission Operator of its inability to comply with an Operating Instruction issued by its Transmission Operator.
3. Each Balancing Authority, Generator Operator, and Distribution Provider shall make available upon request, evidence which may include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent evidence in electronic or hard copy format, that it informed its Transmission Operator of its inability to comply with its Operating Instruction issued. If such a situation has not occurred, the Balancing Authority, Generator Operator, or Distribution Provider may provide an attestation.

**Registered Entity Response (Required):**

**Question:** Did the entity receive an Operating Instruction from a Transmission Operator where compliance with the Operating Instruction could not be physically implemented or such actions would violate safety, equipment, regulatory, or statutory requirements during the audit period?

 [ ]  Yes [ ]  No

If No, describe how this was determined in the narrative section below. If Yes, provide a list of Operating Instructions received from a Transmission Operator that could not be implemented and evidence of compliance with Requirement R4.

[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 Requested: i

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence demonstrating the entity informed its Transmission Operator of its inability to comply with its Operating Instruction, if the entity was unable to comply with the Operating Instruction. |

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 TOP-001-3, R4

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|  | (R4) If the entity was unable to comply with the Operating Instruction(s), verify the entity informed the Transmission Operator(s) that it could not comply.  |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator, Generator Operator, and Distribution Provider shall comply with each Operating Instruction issued by its Balancing Authority, unless such action cannot be physically implemented or it would violate safety, equipment, regulatory, or statutory requirements.
3. Each Transmission Operator, Generator Operator, and Distribution Provider shall make available upon request, evidence that it complied with each Operating Instruction issued by the Balancing Authority(s) unless such action could not be physically implemented or it would have violated safety, equipment, regulatory, or statutory requirements. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence in electronic or hard copy format. In such cases, the Transmission Operator, Generator Operator, and Distribution Provider shall have and provide copies of the safety, equipment, regulatory, or statutory requirements as evidence for not complying with the Balancing Authority’s Operating Instruction. If such a situation has not occurred, the Transmission Operator, Generator Operator, or Distribution Provider may provide an attestation.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence demonstrating that the entity complied with each Operating Instruction issued by its Balancing Authority, unless such action could not be physically implemented or it would have violated safety, equipment, regulatory, or statutory requirements. |
| If applicable, evidence demonstrating why the entity did not comply with the Balancing Authority’s Operating Instruction. |

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 TOP-001-3, R5

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

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|  | (R5) For all, or a sample of Operating Instructions selected by the auditor, review evidence and verify the entity complied with Operating Instructions issued by its Balancing Authority, unless such action could not be physically implemented or it would have violated safety, equipment, regulatory, or statutory requirements.  |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator, Generator Operator, and Distribution Provider shall inform its Balancing Authority of its inability to comply with an Operating Instruction issued by its Balancing Authority.
3. Each Transmission Operator, Generator Operator, and Distribution Provider shall make available upon request, evidence which may include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent evidence in electronic or hard copy format, that it informed its Balancing Authority of its inability to comply with its Operating Instruction. If such a situation has not occurred, the Transmission Operator, Generator Operator, or Distribution Provider may provide an attestation.

**Registered Entity Response (Required):**

**Question:** Did the entity receive an Operating Instruction from its Balancing Authority where compliance with the Operating Instruction could not be physically implemented or such actions would have violated safety, equipment, regulatory, or statutory requirements during the audit period?

 [ ]  Yes [ ]  No

If No, describe how this was determined in the narrative section below. If Yes, provide a list of Operating Instructions received from a Balancing Authority that could not be implemented and evidence of compliance with Requirement R6. [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 Requested: i

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence demonstrating that an entity informed its Balancing Authority of its inability to comply with its Operating Instruction, if the entity was unable to comply with the Operating Instruction. |

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 TOP-001-3, R6

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

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|  | (R6) If the entity was unable to comply with the Operating Instruction(s), verify the entity informed its Balancing Authority that it could not comply. |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall assist other Transmission Operators within its Reliability Coordinator Area, if requested and able, provided that the requesting Transmission Operator has implemented its comparable Emergency procedures, unless such assistance cannot be physically implemented or would violate safety, equipment, regulatory, or statutory requirements.
3. Each Transmission Operator shall make available upon request, evidence that comparable requested assistance, if able, was provided to other Transmission Operators within its Reliability Coordinator Area unless such assistance could not be physically implemented or would have violated safety, equipment, regulatory, or statutory requirements. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence in electronic or hard copy format. If no request for assistance was received, the Transmission Operator may provide an attestation.

**Registered Entity Response (Required):**

**Question:** Did the entity receive a request to provide assistance to another Transmission Operator during the audit period?

 [ ]  Yes [ ]  No

If No, describe how this was determined in the narrative section below. If Yes, provide a list such requests and state if the assistance was provided. If assistance was not provided, state the reasons such assistance was not provided.

[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 Requested: i

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence that comparable requested assistance, if able, was provided to other Transmission Operators within its Reliability Coordinator Area unless such assistance could not be physically implemented or would have violated safety, equipment, regulatory, or statutory requirements. If no request for assistance was received, an attestation may be provided. |

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 TOP-001-3, R7

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

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|  | (R7) For all, or a sample of requests for assistance selected by the auditor, review evidence and verify the entity assisted other Transmission Operators, if requested and able, in accordance with Requirement R7.  |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall inform its Reliability Coordinator, known impacted Balancing Authorities, and known impacted Transmission Operators of its actual or expected operations that result in, or could result in, an Emergency.
3. Each Transmission Operator shall make available upon request, evidence that it informed its Reliability Coordinator, known impacted Balancing Authorities, and known impacted Transmission Operators of its actual or expected operations that result in, or could result in, an Emergency. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence. If no such situations have occurred, the Transmission Operator may provide an attestation.

**Registered Entity Response (Required):**

**Question:** Did the entity encounter any actual or expected operations that could have resulted in an Emergency, or that did result in an Emergency, during the audit period?

 [ ]  Yes [ ]  No

If No, describe how this was determined in the narrative section below. If Yes, provide a list of such instances and evidence of compliance.

 [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 Requested: i

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence to demonstrate the entity informed its Reliability Coordinator, known impacted Balancing Authorities, and known impacted Transmission Operators of the actual or expected operations that result in, or could result in, an Emergency. |

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 TOP-001-3, R8

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

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|  | (R8) Obtain a list of dates and times when the entity experienced actual or expected operations that resulted in, or could have resulted in, an Emergency. |
|  | (R8) For all, or a sample of actual or expected operations that resulted in, or could have resulted in, an Emergency, review evidence to verify the entity informed its Reliability Coordinator, known impacted Balancing Authorities, and known impacted Transmission Operators. |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority and Transmission Operator shall notify its Reliability Coordinator and known impacted interconnected entities of all planned outages, and unplanned outages of 30 minutes or more, for telemetering and control equipment, monitoring and assessment capabilities, and associated communication channels between the affected entities.
3. Each Balancing Authority and Transmission Operator shall make available upon request, evidence that it notified its Reliability Coordinator and known impacted interconnected entities of all planned outages, and unplanned outages of 30 minutes or more, for telemetering and control equipment, monitoring and assessment capabilities, and associated communication channels. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence. If such a situation has not occurred, the Balancing Authority or Transmission Operator may provide an attestation.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| A list of all planned outages, and unplanned outages of 30 minutes or more, for telemetering and control equipment, monitoring and assessment capabilities, and associated communication channels between the affected entities. |
| Evidence that demonstrates that the entity notified its Reliability Coordinator and impacted interconnected entities of all planned outages, and unplanned outages of 30 minutes or more, for telemetering and control equipment, telecommunication equipment, monitoring and assessment capabilities, and associated communication channels between affected entities. |

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 TOP-001-3, R9

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

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|  | (R9) For all, or a sample of outages selected by the auditor, review evidence and verify the entity notified its Reliability Coordinator and impacted interconnected entities. |
|  **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall perform the following as necessary for determining System Operating Limit (SOL) exceedances within its Transmission Operator Area:
	1. Within its Transmission Operator Area, monitor Facilities and the status of Special Protection Systems, and
	2. Outside its Transmission Operator Area, obtain and utilize status, voltages, and flow data for Facilities and the status of Special Protection Systems.
3. Each Transmission Operator shall have, and provide upon request, evidence that could include but is not limited to Energy Management System description documents, computer printouts, Supervisory Control and Data Acquisition (SCADA) data collection, or other equivalent evidence that will be used to confirm that it monitored or obtained and utilized status, voltages, and flow data for Facilities, and the status of Special Protection Systems as required to determine any SOL exceedances within its Transmission Operator Area.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence to demonstrate the entity monitored Facilities and the status of Special Protection Systems within its Transmission Operator Area as necessary for determining SOL exceedances within its Transmission Operator Area.  |
| Evidence to demonstrate the entity obtained and utilized status, voltages, and flow data for Facilities and the status of Special Protection Systems outside its Transmission Operator Area as necessary for determining SOL exceedances within its Transmission Operator Area. |

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 TOP-001-3, R10

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

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|  | (10.1) Verify the entity monitored Facilities and the status of Special Protection Systems within its Transmission Operator Area as necessary for determining SOL exceedances within its Transmission Operator Area. |
|  | (10.2) Verify the entity obtained and utilized status, voltages, and flow data for Facilities and the status of Special Protection Systems outside its Transmission Operator Area as necessary for determining SOL exceedances within its Transmission Operator Area. |
|  **Note to Auditor:** |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority shall monitor its Balancing Authority Area, including the status of Special Protection Systems that impact generation or Load, in order to maintain generation-Load-interchange balance within its Balancing Authority Area and support Interconnection frequency.
3. Each Balancing Authority shall have, and provide upon request, evidence that could include but is not limited to Energy Management System description documents, computer printouts, SCADA data collection, or other equivalent evidence that will be used to confirm that it monitors its Balancing Authority Area, including the status of Special Protection Systems that impact generation or Load, in order to maintain generation-Load-interchange balance within its Balancing Authority Area and support Interconnection frequency.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| A list of Special Protection Systems within the entity’s Balancing Authority Area that impact generation or Load. |
| Evidence to demonstrate the entity monitors its Balancing Authority Area, including the status of Special Protection Systems that impact generation or Load, in order to maintain generation-Load-interchange balance within its Balancing Authority Area and support Interconnection frequency. |

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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Compliance Assessment Approach Specific to TOP-001-3, R11

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|  | (R11) Verify the entity monitored its Balancing Authority Area, including the status of Special Protection Systems that impact generation or Load, in order to maintain generation-Load-interchange balance within its Balancing Authority Area and support Interconnection frequency. |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall not operate outside any identified Interconnection Reliability Operating Limit (IROL) for a continuous duration exceeding its associated IROL Tv.
3. Each Transmission Operator shall make available evidence to show that for any occasion in which it operated outside any identified IROL, the continuous duration did not exceed its associated IROL Tv. Such evidence could include but is not limited to dated computer logs or reports in electronic or hard copy format specifying the date, time, duration, and details of the excursion. If such a situation has not occurred, the Transmission Operator may provide an attestation that an event has not occurred.

**Registered Entity Response (Required):**

**Question:** Did the entity exceed an identified IROL for any period of time during the audit period?

 [ ]  Yes [ ]  No

If No, describe how this was determined in the narrative section below. If Yes, provide a list of IROL exceedances.

[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 Requested: i

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| A list of IROLs with the associated IROL Tv. |
| Evidence to demonstrate that for any occasion in which the entity operated outside any identified IROL, the continuous duration did not exceed its associated IROL Tv.  |

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 TOP-001-3, R12

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

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|  | (R12) For all, or a sample of IROL exceedances selected by the auditor, verify the entity did not operate outside any IROL for a continuous duration exceeding its associated IROL Tv. |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall ensure that a Real-time Assessment is performed at least once every 30 minutes.
3. Each Transmission Operator shall have, and make available upon request, evidence to show it ensured that a Real-Time Assessment was performed at least once every 30 minutes. This evidence could include but is not limited to dated computer logs showing times the assessment was conducted, dated checklists, or other evidence.

**Registered Entity Response (Required):**

**Question:** During the audit period, did the entity experience a loss in Real-time Assessment capability?

 [ ]  Yes [ ]  No

If No, describe how this was determined in the narrative section below. If Yes, explain how the entity ensured a Real-time Assessment was performed at least once every 30 minutes during this loss.

[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 Requested: i

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence to demonstrate the entity ensured a Real-time Assessment was performed at least once every 30 minutes. |

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 TOP-001-3, R13

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

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|  | (R13) Verify the Transmission Operator ensured a Real-time Assessment was performed at least once every 30 minutes. |
| **Note to Auditor:** See definition of Real-time Assessment in Selected Glossary Terms section of RSAW and the rationale for R13 in the Rationale section of the Standard.  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall initiate its Operating Plan to mitigate a SOL exceedance identified as part of its Real-time monitoring or Real-time Assessment.
3. Each Transmission Operator shall have evidence that it initiated its Operating Plan for mitigating SOL exceedances identified as part of its Real-time monitoring or Real-time Assessments. This evidence could include but is not limited to dated computer logs showing times the Operating Plan was initiated, dated checklists, or other evidence.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Operating Plans for SOL exceedances as required under TOP-002-4 R2. |
| Evidence to demonstrate the entity initiated its Operating Plan to mitigate identified SOL exceedances. |

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 TOP-001-3, R14

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

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|  | (R14) For all, or a sample of SOL exceedances identified as part of the entity’s Real-time monitoring or Real-time Assessment, verify the entity initiated its Operating Plan to mitigate the SOL exceedance. |
| **Note to Auditor:** TOPs are required to have an Operating Plan(s) for next-day operations in TOP-002-4 R2. |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall inform its Reliability Coordinator of actions taken to return the System to within limits when a SOL has been exceeded.
3. Each Transmission Operator shall make available evidence that it informed its Reliability Coordinator of actions taken to return the System to within limits when a SOL was exceeded. Such evidence could include but is not limited to dated operator logs, voice recordings or transcripts of voice recordings, or dated computer printouts. If such a situation has not occurred, the Transmission Operator may provide an attestation.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence to demonstrate the entity informed its Reliability Coordinator of its actions to return the System to within limits when a SOL was exceeded. |

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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Compliance Assessment Approach Specific to TOP-001-3, R15

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

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|  | (R15) For all, or a sample of instances when a SOL was exceeded, verify the entity informed its Reliability Coordinator of its actions to return the System to within limits. |
| **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall provide its System Operators with the authority to approve planned outages and maintenance of its telemetering and control equipment, monitoring and assessment capabilities, and associated communication channels between affected entities.
3. Each Transmission Operator shall have, and provide upon request, evidence that could include but is not limited to a documented procedure or equivalent evidence that will be used to confirm that the Transmission Operator has provided its System Operators with the authority to approve planned outages and maintenance of telemetering and control equipment, monitoring and assessment capabilities, and associated communication channels between affected entities.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence to demonstrate the entity provided its System Operators with the authority to approve planned outages of its telemetering and control equipment, monitoring and assessment capabilities, and associated communication channels between affected entities. |

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 TOP-001-3, R16

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|  | (R16) Verify the entity provided its System Operators with the authority to approve planned outages of its telemetering and control equipment, monitoring and assessment capabilities, and associated communication channels between affected entities. |
| **Note to Auditor:** This authority can also be confirmed during System Operator interview questions. |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority shall provide its System Operators with the authority to approve planned outages and maintenance of its telemetering and control equipment, monitoring and assessment capabilities and associated communication channels between affected entities.
3. Each Balancing Authority shall have, and provide upon request, evidence that could include but is not limited to a documented procedure or equivalent evidence that will be used to confirm that the Balancing Authority has provided its System Operators with the authority to approve planned outages and maintenance of its telemetering and control equipment, monitoring and assessment capabilities and associated communication channels between affected entities.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence to demonstrate the entity provided its System Operators with the authority to approve planned outages of its telemetering and control equipment, monitoring and assessment capabilities and associated communication channels between affected entities. |

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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Compliance Assessment Approach Specific to TOP-001-3, R17

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

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|  | (R17) Verify the entity provided its System Operators with the authority to approve planned outages of its telemetering and control equipment, monitoring and assessment capabilities and associated communication channels between affected entities. |
| **Note to Auditor:** This authority can also be confirmed during System Operator interviews. |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall operate to the most limiting parameter in instances where there is a difference in SOLs.
3. Each Transmission Operator shall have, and provide upon request, evidence that could include but is not limited to operator logs, voice recordings, electronic communications, or equivalent evidence that will be used to determine if it operated to the most limiting parameter in instances where there is a difference in SOLs.

**Registered Entity Response (Required):**

**Question:** Did the entity experience an instance where there was a difference in SOLs during the audit period?

[ ]  Yes [ ]  No

If No, describe how this was determined in the narrative section below. If Yes, provide a list of such instances.

[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 Requested: i

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| Evidence to demonstrate the entity operated to the most limiting parameter in instances where there was a difference in SOLs. |

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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Compliance Assessment Approach Specific to TOP-001-3, R18

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

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|  | (R18) For an auditor selected sample of instances where there was a difference in SOLs, verify the entity operated to the most limiting parameter. |
|  **Note to Auditor:**  |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Transmission Operator shall have data exchange capabilities with the entities that it has identified that it needs data from in order to maintain reliability in its Transmission Operator Area.
3. Each Transmission Operator shall have, and provide upon request, evidence that could include, but is not limited to, operator logs, system specifications, or other evidence that it has data exchange capabilities with the entities that it has identified that it needs data from in order to maintain reliability in its Transmission Operator Area.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| List of other entities that the entity has identified as those from whom it needs Real-time data in order to maintain reliability in its Transmission Operator Area. |
| Evidence to demonstrate the entity has data exchange capabilities with the entities that it has identified that it needs data from. |

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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Compliance Assessment Approach Specific to TOP-001-3, R19

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|  | (R19) Verify the entity has data exchange capabilities with the entities that it has identified that it needs data from in order to maintain reliability in its Transmission Operator Area.  |
| **Note to Auditor:** TOP-003-3 requires the Transmission Operator and Balancing Authority to have a data specification for all the data necessary for it to perform its Operational Planning Analysis, Real-time Assessments, and Real-time monitoring. |

Auditor Notes:

1. Supporting Evidence and Documentation
2. Each Balancing Authority shall have data exchange capabilities with the entities that it has identified that it needs data from in order to maintain reliability in its Balancing Authority Area.
3. Each Balancing Authority shall have, and provide upon request, evidence that could include, but is not limited to, operator logs, system specifications, or other evidence that it has data exchange capabilities with the entities that it has identified that it needs data from in order to maintain reliability in its Balancing Authority Area.

**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

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| **Provide the following evidence, or other evidence to demonstrate compliance.**  |
| List of other entities that the entity has identified as those from whom it needs Real-time data in order to maintain reliability in its Balancing Authority Area. |
| Evidence to demonstrate the entity has data exchange capabilities with the entities that it has identified that it needs data from. |

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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Compliance Assessment Approach Specific to TOP-001-3, R20

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|  | (R20) Verify the entity has data exchange capabilities with the entities that it has identified that it needs data from in order to maintain reliability in its Balancing Authority Area. |
| **Note to Auditor:** TOP-003-3 requires the Transmission Operator and Balancing Authority to have a data specification for all the data necessary for it to perform its Operational Planning Analysis, Real-time Assessments, and Real-time monitoring. |

Auditor Notes:

Additional Information:

Reliability Standard



The full text of TOP-001-3 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

[*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.[[3]](#footnote-4) 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.[[4]](#footnote-5) 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.

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. The proposed TOP Reliability Standards will eliminate multiple TOP standards, resulting in a more concise set of standards, reducing redundancy and more clearly delineating responsibilities between applicable entities. In addition, we find that the proposed Reliability Standards provide a comprehensive framework as well as important improvements to ensure that the bulk electric system is operated within pre-established limits while enhancing situational awareness and strengthening operations planning. The TOP and IRO Reliability Standards address the coordinated efforts to plan and reliably operate the bulk electric system under both normal and abnormal conditions.

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.

35. Indeed, once a non-BES facility is included in the BES definition under the BES exception process, the “non-BES facility” becomes a BES “Facility” under TOP-001-3, Requirement R10, and real-time monitoring is required of “Facilities.” However, we are concerned that in some instances the absence of real-time monitoring of non-BES facilities by the transmission operator within and outside its TOP area as necessary for determining SOL exceedances in proposed TOP-001-3, Requirement R10 creates a reliability gap. As the 2011 Southwest Outage Report indicates, the Regional Entity “should lead other entities, including TOPs and BAs, to ensure that all facilities that can adversely impact BPS reliability are either designated as part of the BES or otherwise incorporated into planning and operations studies and actively monitored and alarmed in[real-time contingency analysis] systems.” Such monitoring of non-BES facilities could provide a “stop gap” during the period where a sub-100 kV facility undergoes analysis as a possible BES facility, allowing for monitoring in the interim until such time the non-bulk electric system facilities become “BES Facilities” or the transmission operator determines that a non-bulk electric system facility is no longer needed for monitoring to determine a system operating limit exceedance in its area. We believe that the operational planning analyses and real-time assessments performed by the transmission operators as well as the reliability coordinators will serve as the basis for determining which “non-BES facilities” require monitoring to determine system operating limit and interconnection reliability operating limit exceedances. In addition, we believe that monitoring of certain non-BES facilities that are occasional system operating limit exceedance performers may not qualify as a candidate for inclusion in the BES definition, yet should be monitored for reliability purposes. Accordingly, pursuant to section 215(d)(5) of the FPA, we direct NERC to revise Reliability Standard TOP-001-3, Requirement R10 to require real-time monitoring of non-BES facilities. We believe this is best accomplished by adopting language similar to Reliability Standard IRO-002-4, Requirement R3, which requires reliability coordinators to monitor non-bulk electric system facilities to the extent necessary. NERC can develop an equally efficient and effective alternative that addresses our concerns.

47. We agree with NERC and other commenters that there is a reliability need for the reliability coordinator, transmission operator and balancing authority to have data exchange capabilities that are redundant and diversely routed. However, we are concerned that the TOP and IRO Standards do not clearly address redundancy and diverse routing so that registered entities will unambiguously recognize that they have an obligation to address redundancy and diverse routing as part of their TOP and IRO compliance obligations. NERC’s comprehensive approach to establishing communications capabilities necessary to maintain reliability in the COM standards is applicable to data exchange capabilities at issue here. Therefore, pursuant to section 215(d)(5) of the FPA, we direct NERC to modify Reliability Standards TOP-001-3, Requirements R19 and R20 to include the requirement that the data exchange capabilities of the transmission operators and balancing authorities require redundancy and diverse routing. In addition, we direct NERC to clarify that “redundant infrastructure” for system monitoring in Reliability Standards IRO-002-4, Requirement R4 is equivalent to redundant and diversely routed data exchange capabilities.

55. With regard to clarification of emergencies in Reliability Standard TOP-001-3, Requirement R8, we do not see a need to modify the language…the requirement as written implies that the transmission operator has discretion to determine what could result in an emergency, based on its experience and judgment. In addition, we note that the transmission operators’ required next-day operational planning analysis, real-time assessments and real-time monitoring under the TOP Reliability Standards provide evaluation, assessment and input in determining what “could result” in an emergency.

60. Rather, we believe that, because the reliability coordinator is required to have a coordinated operating plan for the next-day operations, the reliability coordinator will perform its task of developing a coordinated operating plan in good faith, with inputs not only from its transmission operators and balancing authorities, but also from its neighboring reliability coordinators. A reliability coordinator has a wide-area view and bears the ultimate responsibility to maintain the reliability within its footprint, “including the authority to prevent or mitigate emergency operating situations in both next-day analysis and real-time operations.”

65. Reliability Standard TOP-001-3, Requirement R13 requires the transmission operator to ensure the assessment is performed at least once every 30 minutes, but does not state that the transmission operator on its own must perform the assessment and does not specify a system or tool. This gives the transmission operator flexibility to perform its real-time assessment. Further supporting this flexibility, NERC’s definition of real-time assessment states that a real-time assessment “may be provided through internal systems or through third-party services.” Therefore, we believe that Reliability Standard TOP-001-3, Requirement R13 does not specify the system or tool a transmission operator must use to perform a real-time assessment. In addition, NERC explains that Reliability Standard TOP-001-3, Requirement R13 and the definition of real-time assessment “do not specify the manner in which an assessment is performed nor do they preclude Reliability Coordinators and Transmission Operators from taking ‘alternative actions’ and developing procedures or off-normal processes to mitigate analysis tool (RTCA) outages and perform the required assessment of their systems. As an example, the Transmission Operator could rely on its Reliability Coordinator to perform a Real-time Assessment or even review its Reliability Coordinator’s Contingency analysis results when its capabilities are unavailable and vice-versa.” Accordingly, we conclude that TOP-001-3 adequately addresses NIPSCO’s concern, namely, if a transmission operators’ tools are unavailable for 30 minutes or more, the transmission operator has the flexibility to meet the requirement to assess system conditions through other means.

69. In its SOL White Paper, NERC stated that the intent of the SOL concept is to bring clarity and consistency for establishing SOLs, exceeding SOLs, and implementing operating plans to mitigate SOL exceedances.56 In addition, “transient stability ratings” are included in the SOL definition. Further, in the SOL White Paper, NERC states that the “concept of SOL determination is not complete without looking at the approved NERC FAC standards FAC-008-3, FAC-011-2 and FAC-014-2.”

70. With respect to Reliability Standard TOP-001-3, we agree with NERC that Requirement R13 specifies that transmission operators must perform a real-time assessment at least once every 30 minutes, which by definition is an evaluation of system conditions to assess existing and potential operating conditions. The real-time assessment provides the transmission operator with the necessary knowledge of the system operating state to initiate an operating plan, as specified in Requirement R14, when necessary to mitigate an exceedance of SOLs. In addition, the SOL White Paper provides technical guidance for including timelines in the required operating plans to return the system to within prescribed ratings and limits. Accordingly, we conclude that the establishment of transient stability operating limits is adequately addressed collectively through proposed Reliability Standard TOP-001-3, currently-effective Reliability Standards FAC-011-2 and FAC-014-2 and NERC’s Glossary of Terms definition of SOLs.

Selected Glossary Terms

Real-time Assessment: An evaluation of system conditions using Real-time data to assess existing (pre-Contingency) and potential (post-Contingency) operating conditions. The assessment shall reflect applicable inputs including, but not limited to: load, generation output levels, known Protection System and Special Protection System status or degradation, Transmission outages, generator outages, Interchange, Facility Ratings, and identified phase angle and equipment limitations. (Real-time Assessment may be provided through internal systems or through third-party services.)

Operating Plan: A document that identifies a group of activities that may be used to achieve some goal. An Operating Plan may contain Operating Procedures and Operating Processes. A company-specific system restoration plan that includes an Operating Procedure for black-starting units, Operating Processes for communicating restoration progress with other entities, etc., is an example of an Operating Plan.

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 for updated standard language and comments received during second comment period. |
| 4 | 12/05/2014 | NERC Compliance, NERC Standards | Revisions for updated standard language and comments received during third comment period. |
| 5 | 1/29/2017 | NERC Compliance, NERC Standards | Revisions for updated standard language and comments received during third comment period. |
| 6 | 5/22/2017 | NERC Compliance, NERC Standards, RSAWTF | Corrected definition of Real-time Assessment |

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-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. See Mandatory Reliability Standards for the Bulk-Power System, Order No. 693, FERC Stats. & Regs. ¶ 31,242, at P 508, order on reh’g, Order No. 693-A, 120 FERC ¶ 61,053 (2007). In addition, in Order No. 748, the Commission approved revisions to the IRO Reliability Standards. Mandatory Reliability Standards for Interconnection Reliability Operating Limits, Order No. 748, 134 FERC ¶ 61,213 (2011). [↑](#footnote-ref-4)
4. On April 5, 2013, in Docket No. RM13-12-000, NERC proposed revisions to Reliability Standard TOP-006-3 to clarify that transmission operators are responsible for monitoring and reporting available transmission resources and that balancing authorities are responsible for monitoring and reporting available generation resources. [↑](#footnote-ref-5)