

**Compliance Questionnaire and**

**Reliability Standard Audit Worksheet**

**TOP-001-1a — Reliability Responsibilities and Authorities**

**Registered Entity:** *(Must be completed by the Compliance Enforcement Authority)*

**NCR Number:** *(Must be completed by the Compliance Enforcement Authority)*

**Applicable Function(s): BA, TOP, GOP, DP, LSE**

**Auditors:**

**Disclaimer**

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 at <http://www.nerc.com/page.php?cid=2|20>. 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.

# Subject Matter Experts

Identify your company’s subject matter expert(s) responsible for this Reliability Standard. Include the person's title, organization and the requirement(s) for which they are responsible. Insert additional lines if necessary.

**Response: *(Registered Entity Response Required)***

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| **SME Name** | **Title** | **Organization** | **Requirement** |
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# Reliability Standard Language

**TOP-001-1A — Reliability Responsibilities and Authorities**

**Purpose:**

To ensure reliability entities have clear decision‑making authority and capabilities to take appropriate actions or direct the actions of others to return the transmission system to normal conditions during an emergency.

**Applicability:**

Balancing Authorities

Transmission Operators

Generator Operators

Distribution Providers

Load Serving Entities

**NERC BOT Approval Date: 11/1/2006**

**FERC Approval Date: 3/16/2007**

**Reliability Standard Enforcement Date in the United States: 6/18/2007**

**Requirements**:

**R1.**  Each Transmission Operator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area and shall exercise specific authority to alleviate operating emergencies.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R1 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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

**Compliance Assessment Approach Specific to TOP-001-1a R1.**

\_\_\_ Verify that the Transmission Operator has the responsibility and clear decision‑making authority to take whatever actions are needed to ensure the reliability of its area.

\_\_\_ Verify that the Transmission Operator has exercised that specific authority to alleviate operating emergencies if such an event occurred.

**Detailed notes:**

**R2.**  Each Transmission Operator shall take immediate actions to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

**Question:** Have you taken immediate actions to alleviate operating emergencies during the audit period? If yes, describe the event(s).

**Entity** **Response: *(Registered Entity Response Required)***

# R2 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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

**Compliance Assessment Approach Specific to TOP-001-1a R2.**

\_\_\_Verify that the Transmission Operator took immediate action to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (*e.g*., generators, phase shifters, breakers), shedding firm load, or other actions to maintain the integrity of the Bulk Electric System if such an event occurred.

**Detailed notes:**

**R3.**  Each Transmission Operator, Balancing Authority, and Generator Operator shall comply with reliability directives issued by the Reliability Coordinator, and each Balancing Authority and Generator Operator shall comply with reliability directives issued by the Transmission Operator, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances the Transmission Operator, Balancing Authority or Generator Operator shall immediately inform the Reliability Coordinator or Transmission Operator of the inability to perform the directive so that the Reliability Coordinator or Transmission Operator can implement alternate remedial actions.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

**Question:** Have you received any reliability directives from your RC? If yes, were you unable to comply due to safety, equipment or regulatory requirements? If yes, did you immediately notify the RC? Describe the situation.

**Entity** **Response: *(Registered Entity Response Required)***

# R3 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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

**Compliance Assessment Approach Specific to TOP-001-1A R3.**

\_\_\_Verify that the entity complied with all reliability directives issued by the Reliability Coordinator.

\_\_\_Verify that the entity complied with all directives issued by the Transmission Operator.

Note: If in the opinion of the entity, such actions would violate safety, equipment, regulatory or statutory requirements, the entity does not have to comply with the directive. Under these circumstances, review the following:

\_\_\_ Verify the Transmission Operator, Balancing Authority, or Generator Operator shall immediately inform the Reliability Coordinator or Transmission Operator of the inability to perform the directive so that the Reliability Coordinator or Transmission Operator can implement alternate remedial actions.

**Detailed notes:**

**R4.**  Each Distribution Provider and Load Serving Entity shall comply with all reliability directives issued by the Transmission Operator, including shedding firm load, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances, the Distribution Provider or Load Serving Entity shall immediately inform the Transmission Operator of the inability to perform the directive so that the Transmission Operator can implement alternate remedial actions.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

**Question:** Have you received any reliability directives from your TOP? If yes, were you unable to comply due to safety, equipment or regulatory requirements? If yes, did you immediately notify the Transmission Operator? Describe the situation.

**Entity** **Response: *(Registered Entity Response Required)***

# R4 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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

**Compliance Assessment Approach Specific to TOP-001-1a R4.**

\_\_\_ Verify that the Distribution Provider and the Load Serving Entity complied with all reliability directives issued by the Transmission Operator unless such actions would violate safety, equipment, regulatory or statutory requirements.

\_\_\_ Verify that the Distribution Provider or Load Serving Entity immediately informed the Transmission Operator of the inability to perform the directive so that the Transmission Operator could implement alternate remedial actions.

**Detailed notes:**

**R5.**  Each Transmission Operator shall inform its Reliability Coordinator and any other potentially affected Transmission Operators of real time or anticipated emergency conditions, and take actions to avoid, when possible, or mitigate the emergency.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

# R5 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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

**Compliance Assessment Approach Specific to TOP-001-1a R5.**

\_\_\_Verify that the Transmission Operator informed its Reliability Coordinator and any other potentially affected Transmission Operators of real‑time or anticipated emergency conditions.

\_\_\_Verify the entity took actions to avoid, when possible, or mitigate the emergency.

**Detailed notes:**

**R6.** Each Transmission Operator, Balancing Authority, and Generator Operator shall render all available emergency assistance to others as requested, provided that the requesting entity has implemented its comparable emergency procedures, unless such actions would violate safety, equipment, or regulatory or statutory requirements.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

**Question:** Have you been requested to provide emergency assistance to others? If yes, describe.

**Entity** **Response: *(Registered Entity Response Required)***

# R6 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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

**Compliance Assessment Approach Specific to TOP-001-1a R6.**

\_\_\_Verify that the entity rendered all available emergency assistance to others as requested unless it would have violated safety, equipment, or regulatory or statutory requirements.

Note:Emergency assistance only needs to be rendered if the entity has implemented its comparable emergency procedures.

**Detailed notes:**

**R7.** Each Transmission Operator and Generator Operator shall not remove Bulk Electric System facilities from service if removing those facilities would burden neighboring systems unless:

**R7.1.** For a generator outage, the Generator Operator shall notify and coordinate with the Transmission Operator. The Transmission Operator shall notify the Reliability Coordinator and other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.

**R7.2.** For a transmission facility, the Transmission Operator shall notify and coordinate with its Reliability Coordinator. The Transmission Operator shall notify other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.

**R7.3.** When time does not permit such notifications and coordination, or when immediate action is required to prevent a hazard to the public, lengthy customer service interruption, or damage to facilities, the Generator Operator shall notify the Transmission Operator, and the Transmission Operator shall notify its Reliability Coordinator and adjacent Transmission Operators, at the earliest possible time.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

**Question:** Have you removed equipment from service when it caused a burden on neighboring systems? If yes, how did you coordinate this action?

**Entity** **Response: *(Registered Entity Response Required)***

# R7 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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

**Compliance Assessment Approach Specific to TOP-001-1a R7.**

\_\_\_Verify that the entity did not remove BES facilities, if removing those facilities would burden neighboring systems unless:

\_\_\_For a generator outage, the Generator Operator shall notify and coordinate with the Transmission Operator. The Transmission Operator shall notify the Reliability Coordinator and other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.

\_\_\_ For a transmission facility, the Transmission Operator shall notify and coordinate with its Reliability Coordinator. The Transmission Operator shall notify other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.

\_\_\_When time does not permit such notifications and coordination, or when immediate action is required to prevent a hazard to the public, lengthy customer service interruption, or damage to facilities, the Generator Operator shall notify the Transmission Operator, and the Transmission Operator shall notify its Reliability Coordinator and adjacent Transmission Operators, at the earliest possible time.

**Detailed notes:**

**R8.** During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.

**Describe, in narrative form, how you meet compliance with this requirement: *(Registered Entity Response Required)***

**Question:** Have you had a system emergency in which you were required to restore the Real or Reactive Power Balance during the audit period? If yes, explain.

**Entity** **Response: *(Registered Entity Response Required****)*

# R8 Supporting Evidence and Documentation

**Response: *(Registered Entity Response Required)***

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

**Compliance Assessment Approach Specific to TOP-001-1a R8.**

\_\_\_ Verify that during a system emergency, the Balancing Authority and Transmission Operator took immediate action to restore real and Reactive Power Balance.

Note: See interpretation associated with this Requirement on page 18 of this document.

\_\_\_ Verify that if the Balancing Authority or the Transmission Operator was unable to restore Real and Reactive Power Balance, it requested emergency assistance from the Reliability Coordinator.

\_\_\_ Verify that if the requested emergency assistance was not adequate, the Reliability Coordinator, the Balancing Authority, and Transmission Operator implemented firm load shedding.

**Detailed notes:**

# Supplemental Information

**Other ‑** The list of questions above is not all inclusive of evidence required to show compliance with the Reliability Standard. Provide additional information here**, as necessary that** demonstrates compliance with this Reliability Standard.

**Entity** **Response: *(Registered Entity Response)***

# Compliance Findings Summary (to be filled out by auditor)

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| **Req.** | **NF** | **PV** | **OEA** | **NA** | **Statement** |
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**Excerpts from FERC Orders -- For Reference Purposes Only**

**Updated Through April 15, 2013**

**TOP-001-1**

**Order No. 693**

P 1567. The eight Transmission Operations (TOP) Reliability Standards apply to transmission operators, generator operators and balancing authorities. The goal of these Reliability Standards is to ensure that the transmission system is operated within operating limits. Specifically, these Reliability Standards cover the responsibilities and decision-making authority for reliable operations, requirements for operations planning, planned outage coordination, real-time operations, provision of operating data, monitoring of system conditions, reporting of operating limit violations and actions to mitigate such violations. The Interconnection Reliability Operations and Coordination (IRO) group of Reliability Standards complement these proposed TOP Reliability Standards.

P 1568. The reliability goal of TOP-001-1 is to ensure that system operators have the authority to take actions and direct others to take action to maintain Bulk-Power System facilities within operating limits. TOP-001-1 requires that: (a) transmission operating personnel must have the authority to direct actions in real-time; (b) the transmission operator, balancing authority, and generator operator must follow the directives of their reliability coordinator and (c) the balancing authority and generator operator must follow the directives of the transmission operator. In addition, the proposed Reliability Standard requires the transmission operator, balancing authority, generator operator, distribution provider and LSE to take emergency actions when directed to do so in order to keep the transmission system intact.

P 1579. The Commission approves TOP-001-1 as mandatory and enforceable…

P 1586. In response to … [the] request for clarification of the meaning of “safety” in the first sentence of Requirement R4, of TOP-001-1 and whether it refers to safety to the system/equipment, public safety or both, the Commission notes that each term in the series set forth in this provision refers to a type of “requirement.”The provision clearly differentiates between the safety of persons and equipment requirements. Since equipment requirements are mentioned separately, safety must be read as referring to requirements related to safety of persons.

P 1587. … Requirement R6 of the Reliability Standard clearly specifies that entities must provide available emergency assistance provided the requesting entity has implemented its comparable emergency procedures. Given the nature of emergency situations where time is of the essence, compliance with this Requirement must be assessed after the fact as part of the compliance audit, and not during an emergency.

P 1589. Accordingly, the Commission approves Reliability Standard TOP-001-1…

**Appendix 1 of Standard TOP-001-1a**

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| **Requirement Number and Text of Requirement** |
| **R8**. During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding. |
| **Question** |
| For Requirement R8 is the Balancing Authority responsibility to immediately take corrective action to restore Real Power Balance and is the TOP responsibility to immediately take corrective action to restore Reactive Power Balance? |
| **Response** |
| The answer to both questions is yes. According to the NERC Glossary of Terms Used in Reliability Standards, the Transmission Operator is responsible for the reliability of its “local” transmission system, and operates or directs the operations of the transmission facilities. Similarly, the Balancing Authority is responsible for maintaining load-interchange-generation balance, i.e., real power balance. In the context of this requirement, the Transmission Operator is the functional entity that balances reactive power. Reactive power balancing can be accomplished by issuing instructions to the Balancing Authority or Generator Operators to alter reactive power injection.  Based on NERC Reliability Standard BAL-005-1b Requirement R6, the Transmission Operator has no requirement to compute an Area Control Error (ACE) signal or to balance real power.  Based on NERC Reliability Standard VAR-001-1 Requirement R8, the Balancing Authority is not required to resolve reactive power balance issues. According to TOP-001-1 Requirement R3, the Balancing Authority is only required to comply with Transmission Operator or Reliability Coordinator instructions to change injections of reactive power. |

**Order No. 753**

Federal Energy Regulatory Commission approves NERC’s proposed interpretation of Reliability Standard, TOP-001-1, Requirement R8, which pertains to the restoration of real and reactive power during a system emergency.

**Revision History**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Reviewers** | **Revision Description** |
| 1 | December 2010 | RSAW Working Group | Revised Findings Table, modified Supporting Evidence tables and added Revision History. |
| 1 | January 2011 | Craig Struck | Reviewed for format consistency and content. |
| 1.1 | February 2013 | Jacki Power | Added FERC Order issued approved the Interpretation of R8 (FERC Order became effective November 21, 2011). Inserted reference to interpretation for Requirement 8 of this RSAW. |
| 1.1 | April 15, 2013 | NERC Legal | Updated excerpts from FERC orders from March 31, 2009 through and including April 15, 2013. |
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