

**Compliance Questionnaire and**

**Reliability Standard Audit Worksheet**

**TOP-005-2a — Operational Reliability Information**

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

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

**Applicable Function(s): TOP, BA, PSE**

**Auditors:**

**Disclaimer**

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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. Include additional sheets if necessary.

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

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

**TOP-005-2a — Operational Reliability Information**

**Purpose:**

To ensure reliability entities have the operating data needed to monitor system conditions within their areas.

**Applicability:**

Transmission Operators

Balancing Authorities

Purchasing Selling Entities

**NERC BOT Approval Date:**

**FERC Approval Date:**

**Reliability Standard Enforcement Date in the United States:**

**Requirements:**

1. As a condition of receiving data from the Interregional Security Network (ISN), each ISN data recipient shall sign the NERC Confidentiality Agreement for “Electric System Reliability Data.”

**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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|  | **Provide the following:**  **Document Title and/or File Name, Page & Section, Date & Version** | | |
| **Title** | | **Date** | **Version** | |
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| *Audit Team: Additional Evidence Reviewed:* | |  |  | |
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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to TOP-005-2a R1**

\_\_\_ Review the evidence provided to determine if the entity is receiving data from the ISN (if not, this requirement is not applicable).

\_\_\_ Confirm that the entity has signed the NERC Confidentiality Agreement for “Electric System

Reliability Data.”

**Detailed notes:**

1. Upon request, each Balancing Authority and Transmission Operator shall provide to other Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability, the operating data that are necessary to allow these Balancing Authorities and Transmission Operators to perform operational reliability assessments and to coordinate reliable operations. Balancing Authorities and Transmission Operators shall provide the types of data as listed in Attachment 1-TOP-005 “Electric System Reliability Data,” unless otherwise agreed to by the Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability.

**Describe, in narrative form, how you meet compliance with this requirement:**

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

# R2 Supporting Evidence and Documentation

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

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|  | **Provide the following:**  **Document Title and/or File Name, Page & Section, Date & Version** | | |
| **Title** | | **Date** | **Version** | |
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| *Audit Team: Additional Evidence Reviewed:* | |  |  | |
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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to TOP-005-2a R2**

\_\_\_ Review the evidence provided to determine if the entity has been requested to provide operating data (as defined in Attachment 1-TOP-005) to other Balancing Authorities or Transmission Operators with immediate responsibility for operational reliability.

\_\_\_ Review the evidence provided to determine if the entity has provided the requested data.

**Detailed notes:**

1. Each Purchasing-Selling Entity shall provide information as requested by its Host Balancing Authorities and Transmission Operators to enable them to conduct operational reliability assessments and coordinate reliable operations.

**Describe, in narrative form, how you meet compliance with this requirement:**

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

# R3 Supporting Evidence and Documentation

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

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|  | **Provide the following:**  **Document Title and/or File Name, Page & Section, Date & Version** | | |
| **Title** | | **Date** | **Version** | |
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| *Audit Team: Additional Evidence Reviewed:* | |  |  | |
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***This section must be completed by the Compliance Enforcement Authority.***

**Compliance Assessment Approach Specific to TOP-005-2a R3**

\_\_\_ Verify the Purchasing-Selling Entity is providing the requested information to its Host Balancing Authorities and Transmission Operators, to enable them to conduct operational reliability assessments and coordinate reliable operations.

**Detailed notes:**

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# 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** |
| **1** |  |  |  |  |  |
| **2** |  |  |  |  |  |
| **3** |  |  |  |  |  |

**Excerpts from FERC Orders -- For Reference Purposes Only**

**Updated Through October 11, 2011**

**TOP-005-2a**

**Order 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 1642. Reliability Standard TOP-005-1 seeks to ensure that reliability information is shared among reliability coordinators, transmission operators and balancing authorities. It requires the transmission operator and the balancing authority to provide operating data to each other and to the reliability coordinator, and it provides a list of typical operating data that must be provided. TOP-005-1 also provides that each data recipient must execute a confidentiality agreement as a condition of receiving data from NERC’s Interregional Security Network.

P 1649. We are adopting our proposal regarding deletion of references to confidentiality agreements from the Requirements. Our discussion of this matter in connection with TOP-002-1 applies equally here.

P 1651. Accordingly, the Commission approves Reliability Standard TOP-005-1….

**Order No. 748, 18 CFR Part 40 Mandatory Reliability Stds. for Interconnection Reliability Operating Limits, 134 FERC ¶ 61,213 (March 17, 2011)**

1. Under section 215 of the Federal Power Act (FPA), n1 the Federal Energy Regulatory Commission (Commission) approves three new Interconnection Reliability Operations and Coordination (IRO) Reliability Standards and seven revised Reliability Standards related to Emergency Preparedness and Operations (EOP), IRO, and Transmission Operations (TOP). The proposed Reliability Standards were submitted to the Commission for approval by the North American Electric Reliability Corporation (NERC), which the Commission has certified as the Electric Reliability Organization (ERO) responsible for developing and enforcing mandatory Reliability Standards. n2 These Reliability Standards were designed to prevent instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the interconnection by ensuring that the reliability coordinator has the data necessary to assess its reliability coordinator area during the operations horizon and that it takes prompt action to prevent or mitigate instances of exceeding Interconnection Reliability Operating Limits (IROL). n3 The Commission also approves the addition of two new terms to the NERC Glossary of Terms (NERC Glossary). In addition, the Commission approves NERC's proposed revisions to Reliability Standards EOP-001-1, IRO-002-2, IRO-004-2, IRO-005-3, TOP-003-1, TOP-005-2, and TOP-006-2, which remove requirements for the reliability coordinator to monitor and analyze system operating limits (SOL) n4 other than IROLs.

7. On December 31, 2009, NERC submitted a petition to the Commission (NERC Petition) n13 seeking approval of proposed Reliability Standards IRO-008-1, IRO-009-1, and IRO-010-1a. Under these Reliability Standards, reliability coordinators must analyze and monitor IROLs within their Wide-Area n14 to prevent instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the interconnection. These Reliability Standards do not require the reliability coordinator to analyze and monitor SOLs other than IROLs or to take preventive action to avoid or mitigate SOL violations within their reliability coordinator area. In developing the proposed IRO Reliability Standards, NERC determined that it was necessary to retire or modify certain requirements from several existing Reliability Standards. Therefore, NERC proposed revisions to Reliability Standards EOP-001-1, n15 IRO-002-2, IRO-004-2, IRO-005-3, TOP-003-1, TOP-005-2, and TOP-006-2, which remove requirements for the reliability coordinator to monitor and analyze SOLs other than IROLs. NERC also requests approval of new definitions "Operational Planning Analysis" and "Real-time Assessment."

21. The Commission hereby adopts its NOPR proposals and approves new Reliability Standards IRO-008-1, IRO-009-1, and IRO-010-1a; revised Reliability Standards EOP-001-1, IRO-002-2, IRO-004-2, IRO-005-3, TOP-003-1, TOP-005-2, and TOP-006-2; and the two new NERC Glossary terms: "Operational Planning Analysis" and "Real-time Assessment." In approving these Reliability Standards, the Commission concludes that they are just, reasonable, not unduly discriminatory or preferential, and in the public interest. These Reliability Standards serve an important reliability purpose in seeking to prevent instability, uncontrolled separation, or cascading outages that adversely impact the reliability of the interconnection by ensuring that the reliability coordinator has the data necessary to assess its reliability coordinator area during the operations horizon and that it takes prompt action to prevent or mitigate instances of exceeding IROLs. Moreover, they clearly identify the entities to which they apply and contain clear and enforceable requirements. Commenters addressed many of the Commission concerns discussed in the NOPR and in some areas the ERO has indicated that it is continuing to study some issues related to the Commission concerns. The Commission encourages the ERO, applying its technical expertise, to continue such reviews and make any necessary changes to applicable Reliability Standards.

70. Separately from NERC's Petition here, on March 5, 2010, NERC submitted the first of two VSL compliance filings (Filing 1) to the Commission's VSL Orders, n40 which contained the VSL assignments for the original set of 83 Reliability Standards approved by the Commission and NUC-001-2. In addition, NERC requested an extension for filing the remaining VSLs until the 3rd quarter of 2010. On July 6, 2010, the Commission issued a Notice of Extension of Time up to and including December 1, 2010, for Filing 2. n41 On December 1, 2010, NERC submitted a compliance filing to the Commission in Docket No. RR08-04-006 (Filing 2). In Filing 2, NERC submitted VSLs both for Reliability Standards that are pending at the Commission and Reliability Standards previously approved by the Commission. Filing 2 includes VSLs to supersede those in NERC's Petition in Docket No. RM10-15-000 for EOP-001-1, IRO-002-2, IRO-004-2, IRO-005-3, IRO-008-1, IRO-009-1, IRO-010-1, IRO-010-1a, TOP-003-1, TOP-005-2, and TOP-006-2. n42

74. The Commission approves new Reliability Standards IRO-008-1, IRO-009-1, and [\*\*57] IRO-010-1a; revised Reliability Standards EOP-001-1, IRO-002-2, IRO-004-2, IRO-005-3, TOP-003-1, TOP-005-2, and TOP-006-2; and the two new NERC Glossary terms: "Operational Planning Analysis" and "Real-time Assessment." The three new Reliability Standards (IRO-008-1, IRO-009-1 and IRO-010-1a, governing reliability coordinator analyses, operational actions and data collection) replace parts of the currently-effective Reliability Standards EOP-001-0, IRO-002-1, IRO-004-1, IRO-005-2, TOP-003-0, TOP-005-1 and TOP-006-1 approved by the Commission in Order No. 693.

75. Thus, this final rule does not impose entirely new burdens on the affected entities. With the exception of the addition of Interchange Authority as an applicable entity in IRO-010-1a, the currently-effective standards EOP-001-0, IRO-002-1, IRO-004-1, IRO-005-2, TOP-003-0, TOP-005-1 and TOP-006-1 require actions by the same applicable group of entities. IRO-010-1a clarifies that balancing authorities, generator owners, generator operators, interchange authorities, load-serving entities, reliability coordinators, transmission operators, and transmission owners shall provide data and information, as specified, to the reliability coordinator(s) with which it has a reliability relationship. n45 The requirements of IRO-008-1 and IRO-009-1 provide clarification from existing requirements, dictating the analysis and operational roles of the reliability coordinator.

**Order No. 750, 18 CFR Part 40 Electric Reliability Organization Interpretations of Interconnection Reliability Operations and Coordination, Transmission Operations Reliability Standards, 135 FERC ¶ 61,041 (April 21, 2011).**

1. Pursuant to section 215 of the Federal Power Act, the Federal Energy Regulatory Commission hereby approves the North American Electric Reliability Corporation's (NERC) interpretation of the Commission-approved Reliability Standards, IRO-005-1, Reliability Coordination -- Current-Day Operations, and TOP-005-1, Operational Reliability Information. Specifically, the interpretation finds that a transmission owner must report a Special Protection System that is operating with only one communication channel in service to the reliability coordinator and neighboring systems upon request, or when the loss of the communication channel will result in the failure of the Special Protection System to operate as designed. In the Final Rule, the Commission declines to adopt the proposal from the Notice of Proposed Rulemaking (NOPR) to direct the Electric Reliability Organization (ERO) to develop modifications to the Reliability Standards to require additional reporting and instead approves the interpretation as submitted. n1

5. In this proceeding, the Commission addresses NERC's interpretation of the IRO-005-1 and TOP-005-1 Reliability Standards, as previously discussed in the NOPR. In Order No. 693, the Commission approved prior versions of the IRO-005-1 and TOP-005-1, with modifications. n8 The Commission directed NERC to modify TOP-005-1 to specify the operational status of Special Protection Systems and power system stabilizers as information that transmission operators are expected to share, unless otherwise agreed. n9 Because these and other intervening changes are not material to the substance of the interpretation, the discussion in this Final Rule is intended to apply equally to the subsequent versions of these standards as appropriate.

2. Reliability Standard TOP-005-1

7. Reliability Standard TOP-005-1 applies to transmission operators, balancing authorities, reliability coordinators and purchasing selling entities, and has the stated purpose of ensuring that reliability entities have the operating data needed to monitor system conditions within their areas. n10

8. Requirement R3 of TOP-005-1 states in relevant part:

Upon request, each Balancing Authority and Transmission Operator shall provide to other Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability, the operating data that are necessary to allow these Balancing Authorities and Transmission Operators to perform operational reliability assessments and to coordinate reliable operations. Balancing Authorities and Transmission Operators shall provide the types of data as listed in Attachment 1-TOP-005-0 "Electric System Reliability Data," unless otherwise agreed to by the Balancing Authorities and Transmission Operators with immediate responsibility for operational reliability.

TOP-005-1, Attachment 1 includes "New or degraded special protection systems" in the types of data to be reported.

16. In response to Manitoba Hydro's interpretation request, NERC provided the following:

TOP-005-1 does not provide, nor does it require, a definition for the term "degraded."

The IRO-005-1 ([Requirement] R12) standard implies that degraded is a condition that will result in a failure of an [Special Protection System] to operate as designed. If the loss of a communication channel will result in the failure of an [Special Protection System] to operate as designed, then the Transmission Operator would be mandated to report that information. On the other hand, if the loss of a communication channel will not result in the failure of the [Special Protection System] to operate as designed, then such a condition can be, but is not mandated to be, reported.

17. In the background section of the interpretation, NERC affirms that transmission operators are required to provide information such as that listed in the TOP-005-1, Attachment 1 examples upon request, "whether or not [a facility] is or is not in some undefined 'degraded' state." n17

20. NERC reports that it will examine any gaps or deficiencies in Reliability Standards TOP-005-1 and IRO-005-2 when it develops the next version of these standards through the Reliability Standards development process. According to NERC, the interpretations do not modify the language contained in the requirements under review. NERC states that the interpretations do not represent new or modified Reliability Standard requirements and will provide instruction and guidance of the intent and application of the requirements. NERC requests that the Commission approve the interpretations and make them effective immediately after approval, consistent with the Commission's procedures.

21. NERC submitted its Petition for Approval of Interpretations to Reliability Standard TOP-005-1 -- Operational Reliability Information and Reliability Standard IRO-005-1 - Reliability Coordination -- Current Day Operations (Petition) on November 24, 2009, seeking Commission approval of the interpretations referenced in the title of its pleading.

33. The Commission declines to adopt the NOPR proposal and approves NERC's interpretation of IRO-005-1, Requirement R12 and TOP-005-1, Requirement R3 as submitted. The Commission approves the interpretation as consistent with the language of the Reliability Standards, and finds the interpretation just and reasonable. Based on the comments of NERC and the industry that no reliability gap exists, the Commission will rely on their expert opinion and decline to adopt the NOPR proposal to direct the ERO develop modifications to the Reliability Standards. These actions are discussed more fully below.

34. The Commission agrees with the ERO that, with regard to IRO-005-2 Requirement R12, if a redundant Special Protection System with one communication channel out of service can still perform reliably with the remaining channel and its function would therefore not be considered degraded under IRO-005-2. n32 We also agree with the ERO and Entergy that if a reliability coordinator has identified a Special Protection System that is necessary for Reliable Operation, the reliability coordinator can request detailed data as needed, including the status of the components of a Special Protection System. n33 The Reliability Coordinator is obligated to receive and consider data to support its assessment of the performance of the system in order to protect against SOL and IROL events -- this could include data about the status of communication facilities. n34 We agree with commenters that, while the specific wording in the Requirement does not compel the affected entities to report the outage of a single communication channel as degraded if the system remains functional, the information can be compelled by the Reliability Coordinator.

35. In the NOPR, the Commission expressed concern that the interpretation may create a reliability gap with regard to the reporting requirements for a Special Protection System that is able to operate as designed, but still poses a reliability risk to the Bulk-Power System with loss of a single communication channel with redundant design. The ERO asserts that the fact "that one communication channel of a Special Protection System may be out of service in no way prevents that Special Protection System from performing its designed function." As such, a system operator would not be required to make changes to its operational protocols. The ERO nevertheless states that "...the knowledge of the loss of a communication channel could be of general interest to a reliability coordinator or transmission operator." Finally, the ERO and ISO/RTO Council indicate that this information is available to reliability coordinators pursuant to requirements in other reliability standards, and is therefore not necessary as a reporting requirement in TOP-005-1.

36. We are persuaded that a requirement to report the outage of a single communication channel where redundant channels exist is unnecessary because both the ERO and ISO/RTO point to existing requirements in other Reliability Standards that would make this information available to the reliability coordinator upon its request. n35 Such requirements provide the reliability coordinator authority to compel such information as it may deem necessary to ensure reliable operation of the Bulk-Power System including information on the outage of communication channels. Our review of the record in this proceeding satisfies the concerns we expressed in the NOPR and therefore we do not find it necessary to establish the NOPR reporting requirement proposal.

37. In light of the Commission's decision not to implement the NOPR proposal concerning the reporting of the loss of a redundant communication channel, we need not address commenters' objections to our proposal. Ultimately, the decision whether the redundancy of a particular system is needed to perform as designed is a judgment call that must be made by the appropriate reliability entities (i.e., the transmission operator and the reliability coordinator).

40. With respect to TOP-005-1, the interpretation clarifies that NERC affirms that transmission operators are required to provide information upon request, without regard to whether the equipment is operating in a degraded state, as posited in the request for an interpretation. n39 Consequently, the interpretation does not change the information that a transmission owner must report, because the requesting entity is free to request the same types of information as before, and the same logs, data, or measurements would be maintained.

**Revision History**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Reviewers** | **Revision Description** |
| 1 | September 2011 | QRSAW WG | Original Document |
| 1 | October 11, 2011 | NERC Legal | Updated Excerpts from FERC Orders from March 31, 2009 through and including October 11, 2011. |
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