

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. The Standards Committee (SC) approved the Standard Authorization Request (SAR) for posting on March 1, 2007.
2. The SAR was posted for comment from March 19 through April 17, 2007.
3. The SC sought SAR drafting team nominations April 18 through May 2, 2007.
4. The SAR drafting team posted reply comments to industry comments received on the first posting of the SAR on June 8, 2007.
5. Standard drafting team appointed by SC Executive Committee on June 28, 2007.
6. Version 1 draft of COM-003-1 Standard posted November 2009 for Informal Comments closed January 15, 2010.
7. Version 2 draft of COM-003-1 Standard posted May 2012 for Formal Comments, Initial Ballot closed June 20, 2012.
8. Version 3 draft of COM-003-1 Standard posted August 2012 for Formal Comments, Ballot closed September 22, 2012.
9. Version 4 draft of COM-003-1 Standard posted November 2012 for Formal Comments, Ballot closed December 13, 2012.
10. Version 5 draft of COM-003-1 Standard posted March 2013 for Formal Comments, Ballot closed April 5, 2013.
11. Version 6 draft of COM-003-1 Standard posted June 2013 for Formal Comments, Ballot closed July 19, 2013.

Description of Current Draft:

This is the first draft of a revised standard (seventh posting of a communications standard) requiring the use of standardized communication protocols during normal and emergency operations to improve situational awareness and shorten response time. The drafting team is posting this standard for a 15-day concurrent Formal Comment period and Ballot.

Future Development Plan:

| Anticipated Actions | Anticipated Date |
|----------------------------------|-------------------------|
| 1. Additional ballot of Standard | October 2013 |
| 2. Final ballot of Standard. | November 2013 |
| 3. Board adopts standard. | November 2013 |

Definitions of Terms Used in Standard

This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

Operating Instruction — A command by operating personnel responsible for the Real-time generation control and operation of the interconnected Bulk Electric System to change or preserve the state, status, output, or input of an Element of the Bulk Electric System or Facility of the Bulk Electric System. A discussion of general information and of potential options or alternatives to resolve Bulk Electric System operating concerns is not a command and is not considered an Operating Instruction. A Reliability Directive is one type of an Operating Instruction.

A. Introduction

1. **Title:** Operating Personnel Communications Protocols
2. **Number:** COM-002-4
3. **Purpose:** To tighten communications for the issuance of Operating Instructions with predefined communications protocols to reduce the possibility of miscommunication that could lead to action or inaction harmful to the reliability of the Bulk Electric System (BES).
4. **Applicability:**
 - 4.1. **Functional Entities**
 - 4.1.1 Balancing Authority
 - 4.1.2 Distribution Provider
 - 4.1.3 Reliability Coordinator
 - 4.1.4 Transmission Operator
 - 4.1.5 Generator Operator
5. **(Proposed) Effective Date:** The standard shall become effective on the first day of the first calendar quarter that is twelve (12) months after the date that the standard is approved by an applicable governmental authority or as otherwise provided for in a jurisdiction where approval by an applicable governmental authority is required for a standard to go into effect. Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is twelve (12) months after the date the standard is adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.

B. Requirements

- R1. Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall have documented communications protocols. The protocols shall, at a minimum:
[Violation Risk Factor: Low][Time Horizon: Long-term Planning]
 - 1.1. Require the issuer of a Reliability Directive to identify the action as a Reliability Directive to the receiver.
 - 1.2. Require the issuer and receiver of an oral or written Operating Instruction to use the English language, unless agreed to otherwise. An alternate language may be used for internal operations.
 - 1.3. Require the issuer of an oral two-party, person-to-person Operating Instruction to wait for a response from the receiver. Once a response is received, or if no response is received, require the issuer to take one of the following actions:
 - Confirm the receiver's response if the repeated information is correct.

- Reissue the Operating Instruction if the repeated information is incorrect, if the receiver does not issue a response, or if requested by the receiver.
- 1.4. Require the receiver of an oral two-party, person-to-person Operating Instruction to take one of the following actions:
 - Repeat the Operating Instruction and wait for confirmation from the issuer that the repetition was correct.
 - Request that the issuer reissue the Operating Instruction.
 - 1.5. Require the issuer of an oral Operating Instruction to verbally or electronically confirm receipt by at least one receiver when issuing the Operating Instruction through a one-way burst messaging system used to communicate a common message to multiple parties in a short time period (*e.g.*, an all call system).
 - 1.6. Require the receiver of an oral Operating Instruction to request clarification from the issuer if the communication is not understood when receiving the Operating Instruction through a one-way burst messaging system used to communicate a common message to multiple parties in a short time period (*e.g.*, an all call system).
 - 1.7. Specify the instances that require time identification when issuing an oral or written Operating Instruction and the format for that time identification.
 - 1.8. Specify the nomenclature for Transmission interface Elements and Transmission interface Facilities when issuing an oral or written Operating Instruction.
 - 1.9. Specify the instances where alpha-numeric clarifiers are required when issuing an oral Operating Instruction and the format for those clarifiers.
- R2.** Each Distribution Provider and Generator Operator shall have documented communications protocols. The protocols shall, at a minimum: [*Violation Risk Factor: Low*][*Time Horizon: Long-term Planning*]
- 2.1. Require the receiver of an oral or written Operating Instruction to respond using the English language, unless agreed to otherwise. An alternate language may be used for internal operations.
 - 2.2. Require the receiver of an oral two-party, person-to-person Operating Instruction to take one of the following actions:
 - Repeat the Operating Instruction and wait for confirmation from the issuer that the repetition was correct.
 - Request that the issuer reissue the Operating Instruction.
 - 2.3. Require the receiver of an oral Operating Instruction to request clarification from the issuer if the communication is not understood when receiving the Operating Instruction through a one-way burst messaging system used to communicate a common message to multiple parties in a short time period (*e.g.*, an all call system).

- R3.** Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement the documented communications protocols developed in Requirement R1. *[Violation Risk Factor: High][Time Horizon: Real-time Operations]*
- R4.** Each Distribution Provider and Generator Operator shall implement the documented communications protocols developed in Requirement R2. *[Violation Risk Factor: High][Time Horizon: Real-time Operations]*
- R5.** Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall implement a method to evaluate the communications protocols developed in Requirement R1 that: *[Violation Risk Factor: Low][Time Horizon: Operations Planning]*
 - 5.1.** Assesses adherence to the communications protocols to provide feedback to issuers and receivers of Operating Instructions.
 - 5.2.** Assesses the effectiveness of the communications protocols and modifies those protocols, as necessary.

C. Measures

- M1.** Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall provide its documented communications protocols developed for Requirement R1.
- M2.** Each Distribution Provider and Generator Operator shall provide its documented communications protocols developed for Requirement R2.
- M3.** Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall provide evidence that it implemented the documented communication protocols which may include, but is not limited to, descriptions of the management practices in place that provide the entity reasonable assurance that protocols established in Requirement R1 are being followed by personnel responsible for the real-time generation control and operation of the interconnected Bulk Electric System, spreadsheets, memos, or logs, evidencing periodic, independent review of operating personnel's adherence to the protocols established in Requirement R1 and the remediation of noted exceptions in fulfillment of Requirement R5.
- M4.** Each Distribution Provider and Generator Operator shall provide evidence that it implemented the documented communication protocols which may include, but is not limited to, descriptions of the management practices in place that provide the entity reasonable assurance that protocols established in Requirement R2 are being followed by personnel responsible for the real-time generation control and operation of the interconnected Bulk Electric System, spreadsheets, memos, or logs, evidencing periodic, independent review of operating personnel's adherence to the protocols established in Requirement R2.
- M5.** Each Balancing Authority, Reliability Coordinator, and Transmission Operator shall provide descriptions and associated evidence of the management practices in place that demonstrate a review of communications with operating personnel responsible for the real-time generation control and operation of the interconnected Bulk Electric System

and evidence that the entity evaluates the effectiveness of its documented communications protocols in fulfillment of Requirement R5.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

As defined in the NERC Rules of Procedure, “Compliance Enforcement Authority” means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

1.2. Data Retention

The following evidence retention periods identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

Each Balancing Authority, Distribution Provider, Generator Operator, Reliability Coordinator, and Transmission Operator shall each keep data or evidence for each applicable Requirement for the current calendar year and one previous calendar year, with the exception of voice recordings which shall be retained for a minimum of 90 calendar days, unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a Balancing Authority, Distribution Provider, Generator Operator, Reliability Coordinator, or Transmission Operator is found non-compliant, it shall keep information related to the non-compliance until mitigation is complete and approved or for the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

Compliance Monitoring and Assessment Processes

Compliance Audit

Self-Certification

Spot Checking

Compliance Investigation

Self-Reporting

Complaint

1.3. Additional Compliance Information

None

DRAFT

| R # | Time Horizon | VRF | Violation Severity Levels | | | |
|-----|--------------------|-----|--|--|---|--|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| R1 | Long-term Planning | Low | <p>The responsible entity did not specify the instances that require time identification when issuing an oral or written Operating Instruction and the format for that time identification, as required in Requirement R1, Part 1.7</p> <p>OR</p> <p>The responsible entity did not specify the nomenclature for Transmission interface Elements and Transmission interface Facilities when issuing an oral or written Operating Instruction, as required in Requirement R1, Part 1.8</p> <p>OR</p> <p>The responsible entity did not specify the instances where alpha-numeric clarifiers are required when issuing an oral Operating Instruction and the format for those clarifiers, as required in Requirement R1, Part 1.9.</p> | <p>The responsible entity did not require the issuer and receiver of an oral or written Operating Instruction to use the English language, unless agreed to otherwise, as required in Requirement R1, Part 1.2. An alternate language may be used for internal operations.</p> | <p>The responsible entity did not include Requirement R1, Part 1.5 in its documented communication protocols</p> <p>OR</p> <p>The responsible entity did not include Requirement R1, Part 1.6 in its documented communications protocols.</p> | <p>The responsible entity did not include Requirement R1, Part 1.1 in its documented communications protocols</p> <p>OR</p> <p>The responsible entity did not include Requirement R1, Part 1.3 in its documented communications protocols</p> <p>OR</p> <p>The responsible entity did not include Requirement R1, Part 1.4 in its documented communications protocols</p> <p>OR</p> <p>The responsible entity did not develop any documented communications protocols as required in Requirement R1.</p> |

COM-002-4 Operating Personnel Communications Protocols

| R # | Time Horizon | VRF | Violation Severity Levels | | | |
|-----|----------------------|------|---------------------------|--|---|---|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| R2 | Long-term Planning | Low | N/A | The responsible entity did not require the receiver of an oral or written Operating Instruction to use the English language, unless agreed to otherwise, as required in Requirement R2, Part 2.1. An alternate language may be used for internal operations. | The responsible entity did not include Requirement R2, Part 2.3 in its documented communication protocols. | The responsible entity did not include Requirement R2, Part 2.2 in its documented communications protocols OR The responsible entity did not develop any documented communications protocols as required in Requirement R2. |
| R3 | Real-time Operations | High | N/A | N/A | The responsible entity demonstrates a consistent pattern of not using the documented communications protocols developed in Requirement R1 for Operating Instructions that are not Reliability Directives. | The responsible entity did not use the documented communications protocols developed in Requirement R1 when issuing or receiving a Reliability Directive. |

COM-002-4 Operating Personnel Communications Protocols

| R # | Time Horizon | VRF | Violation Severity Levels | | | |
|-----------|----------------------|------|---------------------------|--------------|---|--|
| | | | Lower VSL | Moderate VSL | High VSL | Severe VSL |
| R4 | Real-time Operations | High | N/A | N/A | The responsible entity demonstrates a consistent pattern of not using the documented communications protocols developed in Requirement R2 for Operating Instructions that are not Reliability Directives. | The responsible entity did not use the documented communications protocols developed in Requirement R2 when receiving a Reliability Directive. |
| R5 | Operations Planning | Low | N/A | N/A | N/A | The responsible entity did not implement a method for evaluating its communications protocols as specified in Requirement R5. |

E. Regional Variances

None.

Version History

| Version | Date | Action | Change Tracking |
|----------------|------------------|---|--|
| 0 | April 1, 2005 | Effective Date | New |
| 0 | August 8, 2005 | Removed “Proposed” from Effective Date | Errata |
| 1 | February 7, 2006 | Adopted by Board of Trustees | Added measures and compliance elements |
| 2 | November 1, 2006 | Adopted by Board of Trustees | Revised in accordance with SAR for Project 2006-06, Reliability Coordination (RC SDT). Retired R1, R1.1, M1, M2 and updated the compliance monitoring information. Replaced R2 with new R1, R2 and R3. |
| 2a | February 9, 2012 | Interpretation of R2 adopted by Board of Trustees | Project 2009-22 |
| 3 | November 7, 2012 | Adopted by Board of Trustees | |