

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. Transmission Operator Certification SAR submitted — October 7, 2002.
2. Transmission Operator Certification SAR authorized for posting — November 20, 2002.
3. SAR drafting team appointed — January 6, 2003.
4. Transmission Operator Certification SAR first posting — December 1, 2002 to January 10, 2003.
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10. [Transmission Operator Certification standard third posting — September 1, 2005 to October 15, 2005.](#)

Description of Current Draft:

[This is the fourth posting of the Transmission Operator Certification standards. These standards have been drafted based on the SARs and updated based on the comments received during the four postings of the Balancing Authority Certification standard, the third posting of the Transmission Operator Certification Standards, and the second posting of the Reliability Coordinator Certification Standards.](#)

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Future Development Plan:

Anticipated Actions	Anticipated Date
1. The drafting team will consider and respond to comments received during the current posting and revise the draft standard as needed.	December July 2005
2. Post this standard for a fourth time. It may be necessary to post this standard for a third time if changes are made after receiving the comments from this second posting.	January 2006 August 2005
3. Field test standards. Ballot standards.	March—July 2006 October 2005
4. Ballot standards. BOT adoption.	August

	<u>2006</u> February 6, <u>2006</u>
<u>5. BOT</u> Board adoption. — <u>5.</u> Proposed effective date.	<u>November</u> <u>2006</u> April 1, 2006
<u>6. Proposed effective date.</u>	<u>December 2006</u>

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.

Agreement: A contract or other document delineating an arrangement that expresses assent by two or more parties to the same object. This arrangement determines a course of action to be followed by all parties involved in the situation. The key components of the agreement must identify the ability, intent, and authority of the parties. The requirement for an agreement can be satisfied in a variety of ways, including but not limited to: contracts, designation of authority documents, policies, and procedures.

[Above definition is proposed to replace the existing definition of Agreement in the Reliability Standards Glossary of Terms.]

Transmission Operator Area: A collection of electrical facilities which a Transmission Operator is responsible for controlling or directing operations.

A. Introduction

1. **Title:** **Transmission Operator Certification — Certification**
2. **Number:** ORG-001-1
3. **Purpose:** To ensure that each entity that performs the transmission operation function is certified as a NERC Transmission Operator by the NERC Regional Reliability Organization using the NERC [Organization Registration and Certification Manual](#)~~Process for Transmission Operators~~.
4. **Applicability**
 - 4.1. Entity seeking certification as a Transmission Operator.
 - 4.2. Regional Reliability Organization.
5. ~~(Proposed)~~ **Effective Date:** ~~April~~[December](#) 1, 2006

B. Requirements

- R1. The entity that intends to perform the transmission operation function shall obtain certification as a NERC Transmission Operator by satisfying all of the requirements identified in the NERC Transmission Operator Certification Standards:
 - Transmission Operator Certification — Certification
 - Transmission Operator Certification — Agreements
 - Transmission Operator Certification — Personnel
 - Transmission Operator Certification — Data Acquisition and Monitoring
 - Transmission Operator Certification — System Analysis
 - Transmission Operator Certification — Emergency Operations
 - Transmission Operator Certification — Loss of Control Center Functionality
 - Transmission Operator Certification — Restoration
- R2. The entity seeking certification as a Transmission Operator shall apply for certification in accordance with and adhere to the administrative requirements of the NERC [Organization Registration and Certification Manual](#)~~Process for Transmission Operators~~.
- R3. A Transmission Operator may delegate tasks, but shall retain responsibility for all tasks. Each entity seeking certification as a Transmission Operator shall identify any task for which it is responsible that will be performed by another entity and shall ensure that the entity has the capability to perform the tasks. The entity, to which a task is delegated, shall be subject to review as part of the NERC [Organization Registration and Certification Manual](#)~~Process for Transmission Operators~~.
- R4. The Transmission Operator shall have procedures, processes, and tools for adhering to NERC Reliability Standards ~~related to cyber security including reporting requirements~~.
- R5. The ~~NERC Regional Reliability Organizations~~ awarding of ~~certification~~ certification to the [Transmission Operator by the NERC Regional Reliability Organization](#) ~~to the Transmission Operator~~ ~~NERC Regional Reliability Organizations~~ shall be based on satisfying all of the requirements defined in the NERC Transmission Operator Certification standards identified in Requirement R1.

- R6. The NERC Regional Reliability Organizations shall administer the certification process using the NERC [Organization Registration and Certification Manual](#) ~~Process for Transmission Operators~~.

C. Measures

- M1. The Transmission Operator shall meet Requirement R1.
- M2. The Transmission Operator shall have available for inspection, documentation to meet Requirements R2 through R4.
- M3. The Regional Reliability Organization shall have available for inspection, documentation to meet Requirements R5 and R6.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

- 1.1.1 Regional Reliability Organization for Requirements R1 through R4.
- 1.1.2 NERC for Requirements R5 through R6.

1.2. Compliance Monitoring Period and Reset Time ~~ff~~frame

None

1.3. Data Retention

Regional Reliability Organization — None.
 NERC — Regional Reliability Organization letter of certification approval.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance

- 2.1. Level 1: Not Applicable.
- 2.2. Level 2: Not Applicable.
- 2.3. Level 3: Not Applicable.
- 2.4. Level 4: Not Applicable.

E. Regional Differences

None identified.

Version History

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2. Post this standard for a fourth time. It may be necessary to post this standard for a third time if changes are made after receiving the comments from this second posting.	January 2006 August-2005
3. Field test standards. Ballot standards.	March—July 2006 October-2005
4. Ballot standards. BOT adoption.	August 2006 February-6, 2006

<u>5. BOTBoard adoption.</u> — 5. Proposed effective date.	<u>November</u> 2006 <u>April 1, 2006</u>
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Agreement: A contract or other document delineating an arrangement that expresses assent by two or more parties to the same object. This arrangement determines a course of action to be followed by all parties involved in the situation. The key components of the agreement must identify the ability, intent, and authority of the parties. The requirement for an agreement can be satisfied in a variety of ways, including but not limited to: contracts, designation of authority documents, policies, and procedures.

[Above definition is proposed to replace the existing definition of Agreement in the Reliability Standards Glossary of Terms.]

Transmission Operator Area: A collection of electrical facilities which a Transmission Operator is responsible for controlling or directing operations.

A. Introduction

1. **Title:** Transmission Operator Certification — Agreements
2. **Number:** ORG-002-1
3. **Purpose:** To ensure that the entity seeking certification as a Transmission Operator has agreements in place that define its responsibilities, authority, and interaction with entities that are necessary to perform its transmission operations function.
4. **Applicability**
 - 4.1. Entities seeking certification as a Transmission Operator.
5. ~~(Proposed)~~ **Effective Date:** ~~April~~December 1, 2006

B. Requirements

- R1.** The Transmission Operator shall have agreements that define the responsibilities and authority of that Transmission Operator with respect to its Reliability Coordinator, Generator Owner(s), Generator Operator(s), Planning Authority(ies), Distribution Provider(s), Transmission Owner(s), Transmission Service Provider(s), Balancing Authority(ies), Transmission Planner(s), and adjacent Transmission Operator(s). The entities identified below are the typical information sources, however the information identified can be obtained from alternate sources and must be identified in the appropriate agreements. The agreements for the acquisition of this information for the defined Transmission Operator Area must that addresses:
- R1.1.** The Transmission Operators commitment to:
- R1.1.1.** Provide facility and operational data to the Reliability Coordinator as identified in TOP-005.
 - R1.1.2.** Provide real-time operational data to the Reliability Coordinator as identified in TOP-005.
 - R1.1.3.** Provide outages related to transmission maintenance and construction plans to the Reliability Coordinator ~~and Planning Authority~~ as identified in TOP-003.
 - R1.1.4.** Implement corrective actions as directed by the Reliability Coordinator as identified in IRO-001.
 - R1.1.5.** Notify the Reliability Coordinator of the implementation of the Transmission Operator's emergency procedures as identified in COM-002.
 - R1.1.6.** Operate the transmission system within the generator facility ratings.
 - R1.1.6.1.** Notify Generator Operators of transmission system problems that may affect generator operation in compliance with FERC requirements.
 - R1.1.7.** Operate the transmission system within the transmission facility ratings as identified in TOP-004.
 - R1.1.8.** Provide information and capability to curtail and shed load during emergencies ~~to the Planning Authority~~ as identified in EOP-003.
 - R1.1.9.** ~~Implement DC tie operations.~~

- R1.1.10.** Direct voltage reduction and load shedding if needed to ensure balance in real-time as requested by the Balancing Authority or [directed by the Reliability Coordinator as identified in TOP-001](#).
- R1.1.11.** Obtain generation facility data, real-time operational data and generator maintenance outage plans [as identified in TOP-005](#).
- R1.1.12.** Obtain facility ratings and transmission maintenance and construction plans [as identified in TOP-004 and TOP-003](#).
- R1.1.13.** Obtain transmission system protection and control information, including special protection systems [as identified in PRC-001](#).
- R1.2.** The Reliability Coordinator's commitment to provide reliability analyses to the Transmission Operator [as identified in IRO-005](#).
- R1.3.** The Generator Owner's commitment to provide voltage support to the Transmission Operator.
- R1.4.** The Generator Operator's commitment to:
 - R1.4.1.** Provide reactive supply to the Transmission Operator.
 - R1.4.2.** Report immediate changes in status of automatic voltage regulators and power system stabilizers to the Transmission Operator [as identified in TOP-002](#).
 - R1.4.3.** Provide real-time operating information to the Transmission Operator [as identified in TOP-006](#).
- R1.5.** The Distribution Provider's commitment to implement voltage reduction and shed load as directed by the Transmission Operator [as identified in TOP-001](#).
- R1.6.** The Transmission Planner's commitment to define and communicate transmission system protection and control information, including special protection systems to the Transmission Operator.
- R1.7.** Commitment of both the Transmission Operator and adjacent Transmission Operators to coordinate:
 - R1.7.1.** Transmission-line flows on interconnected facilities [as identified in TOP-004](#).
 - R1.7.2.** Transmission operations and maintenance outages [as identified in TOP-004](#).
 - R1.7.3.** Transmission voltage [as identified in TOP-004](#).

C. Measures

- M1.** The Transmission Operator shall have available for inspection agreement(s) that meet Requirement R1.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Timeframe

None.

1.3. Data Retention

None.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance

2.1. Level 1: Not Applicable.

2.2. Level 2: Not Applicable.

2.3. Level 3: Not Applicable

2.4. Level 4: Not Applicable.

E. Regional Differences

None identified.

Version History

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10. [Transmission Operator Certification standard third posting — September 1, 2005 to October 15, 2005.](#)

Description of Current Draft:

This is the ~~fourth~~^{third} posting of the Transmission Operator Certification Standards. These standards have been drafted based on the SARs and updated based on the comments received during the ~~fourth~~^{three} postings of the Balancing Authority Certification standard, the ~~third~~^{second} posting of the Transmission Operator Certification standards, and the ~~second~~^{first} posting of the Reliability Coordinator Certification standards.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. The drafting team will consider and respond to comments received during the current posting and revise the draft standard as needed.	July-December 2005
2. It may be necessary to p Post this standard for a fourth ^{third} time if changes are made after receiving the comments from this second posting.	January ^{August} 200 5
3. Ballot standards. <u>Field test standards.</u>	October-March- July 200 5
4. Ballot standards. <u>BOT adoption.</u>	August 200 6 ^{February 6,} 2006
5. BOT <u>Board adoption.</u> — 5. Proposed effective date.	November 200 6 ^{April 1,} 2006

6. Proposed effective date.	December 2006

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A. Introduction

1. **Title:** Transmission Operator Certification — Personnel
2. **Number:** ORG-003-1
3. **Purpose:** To ensure that the entity seeking certification as a Transmission Operator has operating personnel that have been trained and are NERC certified to perform Transmission Operator real-time responsibilities.
4. **Applicability**
 - 4.1. Entities seeking certification as a Transmission Operator.
5. ~~(Proposed)~~ **Effective Date:** December 1, April 1, 2006

B. Requirements

- R1. The Transmission Operator shall provide their operating personnel with the responsibility and authority as identified in PER-001 and TOP-001.
- R2. The Transmission Operator shall have NERC-certified personnel as identified in PER-003, to perform any of the real-time Transmission Operator responsibilities 24 hours a day, seven days a week.
- R3. Personnel shall have a current certification credential applicable to the Transmission Operations function. The Transmission Operator may delegate. If any of these real-time tasks are delegated provided, the personnel performing these tasks are shall also be certified.
 - R3.1. Tasks considered real-time are:
 - Monitor and operate or direct the operations of the transmission system within equipment and facility ratings.
 - Deploy reactive resources to maintain acceptable voltage profiles.
 - Notify Generator Operators of transmission system problems in compliance with FERC requirements.
 - Request Reliability Coordinator to mitigate equipment overloads.
 - Coordinate voltage reduction and load shedding as requested by the Balancing Authority or as directed by the Reliability Coordinator.
 - Direct voltage reduction and load shedding

~~R1.~~

~~R1.1. Tasks considered real-time Transmission Operator responsibilities include:~~

- ~~▪ Monitor, operate or direct the operations of the transmission system within equipment and facility ratings.~~
- ~~▪ Deploy reactive resources to maintain acceptable voltage profiles.~~
- ~~▪ Notify Generator Operators of transmission system problems.~~
- ~~▪ Request Reliability Coordinator to mitigate equipment overloads.~~
- ~~▪ Coordinate voltage reduction and load shedding with, or as directed by, the Reliability Coordinator.~~
- ~~▪ Direct voltage reduction and load shedding.~~

~~•Implement DC tie operations~~

~~R4. The Transmission Operator shall have a training program and provide its operating personnel with training as identified in PER-002.~~

~~R2. Entities to whom tasks are delegated The Transmission Operator shall have a training program and provide its operating personnel with training as identified in PER-002. have a training program and provide its operating personnel with training that addresses all of the procedures, processes, and tools associated with performing the Transmission Operator responsibilities identified in Requirement R1.~~

~~R2.1. The Transmission Operator shall have a training program that addresses the knowledge and competencies required for reliable system operations.~~

~~R2.2.R5. The Transmission Operator shall have training records identifying when the training occurred, who attended the training, and the material that was covered.~~

C. Measures

~~M1. The Transmission Operator shall have available for inspection, documentation identifying the elements to satisfy Requirement R1.~~

~~M1.M2. The Transmission Operator shall have available for inspection, records of all certification for personnel identified in Requirements R2+ and R3 (if applicable).~~

~~M2.M3. The Transmission Operator shall have available for inspection, documentation of its training programs and records of training activities for personnel identified in Requirements R4 and R52.~~

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Time ~~ff~~frame

None.

1.3. Data Retention

None.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance

2.1. Level 1: Not Applicable. —

2.2. Level 2: Not Applicable.

2.3. Level 3: Not Applicable.

2.4. Level 4: Not Applicable.

E. Regional Differences

None identified.

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1. The drafting team will consider and respond to comments received during the current posting and revise the draft standard as needed.	December 2005
2. Post this standard for a fourth time.	January 2006
3. Field test standards.	March—July 2006
4. Ballot standards.	August 2006

<u>5. BOTBoard adoption.</u>	<u>November 2006</u>
<u>6. Proposed effective date.</u>	<u>December 2006</u>
Anticipated Actions	Anticipated Date
1. The drafting team will consider and respond to comments received during the current posting and revise the draft standard as needed.	July 2005
2. It may be necessary to post this standard for a third time if changes are made after receiving the comments from this second posting.	August 2005
3. Ballot standards.	October 2005
4. BOT adoption.	February 6, 2006
5. Proposed effective date.	April 1, 2006

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Transmission Operator Area: A collection of electrical facilities which a Transmission Operator is responsible for controlling or directing operations.

A. Introduction

1. **Title:** Transmission Operator Certification — Data Acquisition and Monitoring
2. **Number:** ORG-004-1
3. **Purpose:** To ensure that each entity seeking certification as a Transmission Operator has ~~real-time~~ transmission, generation, and protection and control data in order to adequately monitor the transmission system.
4. **Applicability**
 - 4.1. Entity seeking certification as a Transmission Operator
5. ~~(Proposed)~~ **Effective Date:** ~~April~~ December 1, 1, 2006

B. Requirements

- R1. The Transmission Operator shall have data ~~reporting-acquisition~~ requirements for its Transmission Operator Area that include: periodicity of transmittal, format of submission, and time frame.
- R2. The Transmission Operator shall have procedures, processes, ~~orand~~ tools as identified in COM-001 for acquiring or developing data as identified in TOP-005 that includes:
 - R3.R2.1. Generation facility data.
 - R4.R2.2. Generator real-time operational data.
 - R5.R2.3. Generator outages related to maintenance plans.
 - R6.R2.4. Transmission facility data.
 - R7.R2.5. Transmission real-time operational data.
 - R8.R2.6. Transmission outages related to maintenance and construction plans.
 - R9.R2.7. System protection and control information, including special protection schemes.
 - R10.R2.8. Generator reactive supply.
 - R11.R2.9. Status of automatic voltage regulator.
- R3. The Transmission Operator shall have procedures, processes, ~~orand~~ tools to:
 - R4.R3.1. Provide its Transmission Operator area information, in real-time, to the Reliability Coordinator as identified in TOP-005 and TOP-007.
 - R5.R3.2. Coordinate outages related to transmission maintenance and construction plans with the Reliability Coordinator as identified in TOP-003.
 - R6.R3.3. Coordinate operations with adjacent Transmission Operators as identified in TOP-002.
- R4. The Transmission Operator shall have procedures, processes, and tools for monitoring its Transmission Operator area with real-time data as identified in TOP-006 that includes:
 - R4.1. Frequency
 - R4.2. Voltages
 - R4.3. Transmission facility flows — both real and reactive

- R4.4. Transmission facility statuses
- R4.5. Generator MW and MVAR output
- R4.6. Voltage phase angles (if applicable)
- R4.7. Special protection system statuses (if applicable)
- R4.8. Equipment dynamic ratings (if applicable)
- R4.9. Transformer load tap changers position (if applicable)
- R4.10. Phase shifter settings (if applicable)
- R4.11. Power System Stabilizers (if applicable)

C. Measures

- M1. The Transmission Operator shall have available for inspection its established data reporting requirements identified in Requirement R1.
- M2. The Transmission Operator shall demonstrate that it can follow its procedure, process, ~~and~~ use its tools for acquiring, developing, and sharing ~~to collect the~~ data or information identified in Requirements R2 and R3 ~~and R4~~.
- M3. The Transmission Operator shall demonstrate that it can follow its procedure, process, and use its tools for monitoring system conditions ~~provide and coordinate the elements~~ identified in Requirement R4 ~~3~~.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization

1.2. Compliance Monitoring Period and Reset Time ~~ff~~Frame

None.

1.3. Data Retention

None.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance

2.1. Level 1: Not Applicable.

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A. Introduction

1. **Title:** **Transmission Operator Certification — System Analysis**
2. **Number:** ORG-005-1
3. **Purpose:** To ensure that the entity seeking certification as a Transmission Operator has the ability to perform system analyses, develop contingency plans, coordinate actions, and operate its Transmission Operator Area within established limits.
4. **Applicability**
 - 4.1. Entity seeking certification as a Transmission Operator.
5. ~~(Proposed)~~ **Effective Date:** ~~April~~December 1, 2006

B. Requirements

- R1. The Transmission Operator shall have processes, procedures, and tools to perform real-time reliability analysis and alert operating personnel to limit violations as identified in TOP-002.
- R2. The Transmission Operator shall have processes, procedures, and tools to perform contingency analyses, develop contingency plans and coordinate these plans with its Reliability Coordinator as identified in TOP-002 and TOP-004.
- R3. The Transmission Operator shall have processes, procedures, and tools to communicate real-time actions to its Reliability Coordinator as identified COM-002 and TOP-002.
- R4. The Transmission Operator shall have processes, procedures, and tools to develop operating limits (thermal, voltage, and stability) for use in real-time operations as identified in TOP-002 and TOP-004.
- R5. The Transmission Operator shall have processes or procedures to determine and arrange for the required reactive resources to ensure voltage support as identified in VAR-001 and TOP-004.

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- ~~R1. The Transmission Operator shall perform real-time reliability analysis and alert operating personnel to limit violations.~~
- ~~R2. The Transmission Operator shall perform contingency analyses, develop contingency plans and coordinate these plans with its Reliability Coordinator.~~
- ~~R3. The Transmission Operator shall communicate real-time actions to its Reliability Coordinator.~~
- ~~R4. The Transmission Operator shall determine and arrange for the required reactive resources to ensure voltage support.~~
- ~~R5. The Transmission Operator shall develop operating limits (thermal, voltage, and stability) for use in real-time operations.~~

C. Measures

- M1. The Transmission Operator shall demonstrate that it can follow its procedures, processes, and use its tools to meet Requirements R1 ~~through R4~~through R5.
- M2. The Transmission Operator shall have available for inspection its procedures and processes to meet Requirement R5.

D. Compliance

1. **Compliance Monitoring Process**

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Time ~~ff~~Frame

None.

1.3. Data Retention

None.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance

2.1. Level 1: Not Applicable.

2.2. Level 2: Not Applicable.

2.3. Level 3: Not Applicable.

2.4. Level 4: Not Applicable.

E. Regional Differences

None identified.

Version History

Version	Date	Action	Change Tracking

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. Transmission Operator Certification SAR submitted — October 7, 2002.
2. Transmission Operator Certification SAR authorized for posting — November 20, 2002.
3. SAR drafting team appointed — January 6, 2003.
4. Transmission Operator Certification SAR first posting — December 1, 2002 to January 10, 2003.
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6. Transmission Operator Certification SAR authorized by SAC for standard development — September 8, 2003.
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10. [Transmission Operator Certification standard third posting — September 1, 2005 to October 15, 2005.](#)

Description of Current Draft:

[This is the fourth posting of the Transmission Operator Certification standards. These standards have been drafted based on the SARs and updated based on the comments received during the four postings of the Balancing Authority Certification standard, the third posting of the Transmission Operator Certification standards, and the second posting of the Reliability Coordinator Certification standards.](#)
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Future Development Plan:

Anticipated Actions	Anticipated Date
1. The drafting team will consider and respond to comments received during the current posting and revise the draft standard as needed.	July-December 2005
2. Post this standard for a fourth time. It may be necessary to post this standard for a third time if changes are made after receiving the comments from this second posting.	January 2006 August 2005
3. Field test standards. Ballot standards.	March—July 2006 October 2005
4. Ballot standards. BOT adoption.	August 2006 February 6,

	<u>2006</u>
<u>5. BOTBoard adoption.</u> — <u>5. Proposed effective date.</u>	<u>November</u> <u>2006</u> <u>April 1, 2006</u>
<u>6. Proposed effective date.</u>	<u>December 2006</u>

Definitions of Terms Used in Standard

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Transmission Operator Area: A collection of electrical facilities which a Transmission Operator is responsible for controlling or directing operations.

A. Introduction

1. **Title:** Transmission Operator Certification — Emergency Operations
2. **Number:** ORG-006-1
3. **Purpose:** To ensure that the entity seeking certification as a Transmission Operator has the capability for continued operations during Bulk Electric System emergency conditions.
4. **Applicability:**
 - 4.1. Entity seeking certification as a Transmission Operator.
5. ~~(Proposed)~~ **Effective Date:** ~~April~~ December 1, 2006

B. Requirements

- R1. The Transmission Operator shall have procedures or processes that define its responsibilities and authority for responding to a Bulk Electric System emergency as identified in TOP-001.
- R2. The Transmission Operator shall have procedures, processes or tools for communicating and coordinating operations during a Bulk Electric System emergency that addresses when the Transmission Operator:
 - R2.1. Is unable to meet its voltage and reactive requirements as identified in VAR-001 and COM-002.
 - R2.2. Is unable to control system thermal requirements as identified in TOP-004 and TOP-008.
 - R2.3. Is unable to control system stability requirements as identified in TOP-004.
 - R2.4. Has experienced or is informed of an actual or suspected act of sabotage that affects a physical or cyber asset within its Transmission Operator area and impacts the ability to operate as identified in CIP-001.
 - R2.5. Coordinates actions with adjacent Transmission Operators and Reliability Coordinator under an anticipated or actual Bulk Electric System- emergency as identified in EOP-001 and TOP-008.
 - R2.6. Is directed to take action to mitigate an Interconnection Reliability Operating Limit violation as identified in TOP-004, TOP-008, and EOP-001.
 - R2.7. Is directed to shed load by the Balancing Authority or Reliability Coordinator as identified in EOP-003.
- ~~R1. The Transmission Operator shall have procedures or processes that define its responsibilities, authority, and actions for responding, communicating status, and coordinating operations during a bulk electric system Emergency that addresses when the Transmission Operator:~~
- ~~R2. Is unable to meet its voltage and reactive requirements.~~
- ~~R3. Is experiencing a actual bulk electric system Emergency.~~
- ~~R4. Has experienced or is informed of an actual or suspected act of sabotage that affects a physical or cyber asset within its Transmission Operator Area and impacts the ability to operate.~~
- ~~R5. Takes actions under an anticipated or actual bulk electric system Emergency.~~
- ~~R6. Coordinate with adjacent Transmission Operators.~~
- ~~R7. Is directed to take action to mitigate an Interconnection Reliability Operating Limit violation.~~

~~R8. Is directed to shed load by the Balancing Authority or Reliability Coordinator.~~

C. Measures

M1. The Transmission Operator shall have available for inspection its procedures and processes ~~and demonstrate its tools for satisfying or processes as identified in~~ Requirements R1 and R2.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Time ~~ff~~frame

None.

1.3. Data Retention

None.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance

2.1. Level 1: Not Applicable.

2.2. Level 2: Not Applicable.

2.3. Level 3: Not Applicable.

2.4. Level 4: Not Applicable.

E. Regional Differences

None identified.

Version History

Version	Date	Action	Change Tracking

Standard Development Roadmap

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Future Development Plan:

Anticipated Actions	Anticipated Date
1. The drafting team will consider and respond to comments received during the current posting and revise the draft standard as needed.	December July 2005
2. Post this standard for a fourth time. It may be necessary to post this standard for a third time if changes are made after receiving the comments from this second posting.	January 2006 August 2005
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Transmission Operator Area: A collection of electrical facilities which a Transmission Operator is responsible for controlling or directing operations.

A. Introduction

1. **Title:** Transmission Operator Certification — Loss of Control Center Functionality
2. **Number:** ORG-007-1
3. **Purpose:** To ensure that the entity seeking certification as a Transmission Operator has the capability for continued operations during loss of its control center functionality.
4. **Applicability:**
 - 4.1. Entity seeking certification as a Transmission Operator.
5. ~~(Proposed)~~ **Effective Date:** ~~April~~December 1, 2006

B. Requirements

- ~~R1.~~The Transmission Operator shall have procedures, processes, tools, or facilities to continue to operate in accordance with the requirements applicable to the Transmission Operator in EOP-008 under the single occurrence for each of the following conditions:
- ~~R2.~~Evacuation of control center building
- ~~R3.~~Loss of communications¹
- ~~R4.~~Loss of monitoring and assessment systems functionality²
- ~~R5.~~Loss of Supervisory Control and Data Acquisition system data
- ~~R6.~~Loss of control center support functions, i.e. air conditioning, power, or water —
- ~~R7.~~The Transmission Operator shall have procedures or processes and tool(s) to operate during the conditions identified in Requirement R1 that addresses:
- ~~R8.~~Acquiring generation facility data, real time operational data and generator maintenance outage plans.
- ~~R9.~~Acquiring transmission facility data, real time operational data and outages related to maintenance and construction plans.
- ~~R10.~~Providing its Transmission Operator Area information, in real time, to the Reliability Coordinator.
- ~~R11.~~Providing and coordinating outages related to transmission maintenance and construction plans with the Reliability Coordinator.
- ~~R12.~~Coordinating operations with adjacent Transmission Operators.
- ~~R13.~~Performing real time reliability analysis.
- ~~R14.~~Performing contingency analyses, develop contingency plans, and coordinate these plans with its Reliability Coordinator.
- ~~R15.~~Determining and arranging for the required reactive resources to ensure voltage support.
- ~~R16.~~Communicating real time actions to its Reliability Coordinator.

¹ Loss of communications is meant to include all primary communications(internet, administrative and operational voice, etc.) other than that associated with SCADA data

² Loss of monitoring and assessment systems functionality is meant to include any method that entities' utilize in monitoring, controlling, and assessing their area of responsibility.

~~R17. Monitoring its Transmission Operator Area with real time data.~~

~~R2.11.R1. Adhering to cyber security protocols.~~

C. Measures

M1. The Transmission Operator shall have available for inspection its procedures, processes, tools or facilities to meet Requirements R1 and R2.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization.

1.2. Compliance Monitoring Period and Reset Time ~~ff~~Frame

None.

1.3. Data Retention

None.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance

2.1. Level 1: Not Applicable.

2.2. Level 2: Not Applicable.

2.3. Level 3: Not Applicable.

2.4. Level 4: Not Applicable.

E. Regional Differences

None identified.

Version History

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A. Introduction

1. **Title:** Transmission Operator Certification — Restoration
2. **Number:** ORG-008-1
3. **Purpose:** To ensure that the entity seeking certification as a Transmission Operator has a restoration plan for implementation after a Bbulk Eelectric System shutdown.
4. **Applicability:**
 - 4.1. Entity seeking certification as a Transmission Operator.
5. ~~(Proposed)~~ **Effective Date:** ~~April~~December 1, 2006

B. Requirements

- ~~R1.~~The Transmission Operator shall have a restoration plan that satisfies all of the requirements applicable to the Transmission Operator in EOP-005. defines its responsibilities, authority, and actions in responding, communicating status, and coordinating with the Reliability Coordinator, Balancing Authority(ies), Generator Operator(s), Distribution Providers, and adjacent Transmission Operators following a partial or total bulk electric system shutdown.
- ~~R2.~~R1. _____ The Transmission Operator shall provide its restoration plan to its Reliability Coordinator.

C. Measures

- M1. The Transmission Operator shall have available for inspection the documentation necessary to satisfy the elements of specified in Requirements R1 and R2.

D. Compliance

1. **Compliance Monitoring Process**
 - 1.1. **Compliance Monitoring Responsibility**

Regional Reliability Organization.
 - 1.2. **Compliance Monitoring Period and Reset Time** ~~f~~frame
None.
 - 1.3. **Data Retention**

None.
 - 1.4. **Additional Compliance Information**

None.
2. **Levels of Non-Compliance**
 - 2.1. **Level 1:** Not Applicable.
 - 2.2. **Level 2:** Not Applicable
 - 2.3. **Level 3:** Not Applicable.
 - 2.4. **Level 4:** Not Applicable.

E. Regional Differences

None identified.

Version History

Version	Date	Action	Change Tracking