

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. SAC approves SAR for posting (March 20, 2002).
2. Drafting team posts draft SAR for comment periods (April 2, 2002–May 3, 2002) (September 24, 2002–October 25, 2002) (December 13, 2002–January 31, 2003).
3. SAC approves development of standard (February 27, 2003).
4. JIC assigns development of standard to NERC (March 21, 2003).
5. Drafting team posts drafts for comment (July 1, 2003–August 29, 2003) (December 1, 2003–January 21, 2004) (February 18, 2005–April 3, 2005).
6. Drafting team posts Implementation Plan for comment (June 1, 2003–July 15, 2005).
7. Drafting team posts standards and Implementation Plan for 30-day pre-ballot review (September 1–30, 2005).
8. First ballot conducted October 4–14, 2005 but failed to achieve a quorum.
9. Re-ballot conducted October 18–November 8, 2005.
10. Recirculation ballot conducted November 15–28, 2005.

Description of Current Draft:

Final draft for board adoption.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Board adopts standard.	November 1, 2005
2. Effective date.	May 1, 2006

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.

Equipment Rating: The maximum and minimum voltage, current, frequency, real and reactive power flows on individual equipment under steady state, short-circuit and transient conditions, as permitted or assigned by the equipment owner.

Facility: A set of electrical equipment that operates as a single Bulk Electric System Element (e.g., a line, a generator, a shunt compensator, transformer, etc.)

Performance-Reset Period: The time period that the entity being assessed must operate without any violations to reset the level of non compliance to zero.

A. Introduction

1. **Title:** Facility Ratings Methodology
2. **Number:** FAC-008-1
3. **Purpose:** To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or methodologies.
4. **Applicability**
 - 4.1. Transmission Owner
 - 4.2. Generator Owner
5. **Proposed Effective Date:** May 1, 2006

B. Requirements

- R1. The Transmission Owner and Generator Owner shall each document its current methodology used for developing Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned Facilities. The methodology shall include all of the following:
 - R1.1. A statement that a Facility Rating shall equal the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.
 - R1.2. The method by which the Rating (of major BES equipment that comprises a Facility) is determined.
 - R1.2.1. The scope of equipment addressed shall include, but not be limited to, generators, transmission conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.
 - R1.2.2. The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.
 - R1.3. Consideration of the following:
 - R1.3.1. Ratings provided by equipment manufacturers.
 - R1.3.2. Design criteria (e.g., including applicable references to industry Rating practices such as manufacturer's warranty, IEEE, ANSI or other standards).
 - R1.3.3. Ambient conditions.
 - R1.3.4. Operating limitations.
 - R1.3.5. Other assumptions.
- R2. The Transmission Owner and Generator Owner shall each make its Facility Ratings Methodology available for inspection and technical review by those Reliability Coordinators, Transmission Operators, Transmission Planners, and Planning Authorities that have responsibility for the area in which the associated Facilities are located, within 15 business days of receipt of a request.
- R3. If a Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Authority provides written comments on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings Methodology, the Transmission Owner or Generator Owner shall provide a written response to that commenting entity within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the

Facility Ratings Methodology and, if no change will be made to that Facility Ratings Methodology, the reason why.

C. Measures

- M1.** The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the items identified in FAC-008 Requirement 1.1 through FAC-008 Requirement 1.3.5.
- M2.** The Transmission Owner and Generator Owner shall each have evidence it made its Facility Ratings Methodology available for inspection within 15 business days of a request as follows:
 - M2.1** The Reliability Coordinator shall have access to the Facility Ratings Methodologies used for Rating Facilities in its Reliability Coordinator Area.
 - M2.2** The Transmission Operator shall have access to the Facility Ratings Methodologies used for Rating Facilities in its portion of the Reliability Coordinator Area.
 - M2.3** The Transmission Planner shall have access to the Facility Ratings Methodologies used for Rating Facilities in its Transmission Planning Area.
 - M2.4** The Planning Authority shall have access to the Facility Ratings Methodologies used for Rating Facilities in its Planning Authority Area.
- M3.** If the Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Authority provides documented comments on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings Methodology, the Transmission Owner or Generator Owner shall have evidence that it provided a written response to that commenting entity within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the Facility Ratings Methodology and, if no change will be made to that Facility Ratings Methodology, the reason why.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organization

1.2. Compliance Monitoring Period and Reset Time Frame

Each Transmission Owner and Generator Owner shall self-certify its compliance to the Compliance Monitor at least once every three years. New Transmission Owners and Generator Owners shall each demonstrate compliance through an on-site audit conducted by the Compliance Monitor within the first year that it commences operation. The Compliance Monitor shall also conduct an on-site audit once every nine years and an investigation upon complaint to assess performance.

The Performance-Reset Period shall be 12 months from the last finding of non-compliance.

1.3. Data Retention

The Transmission Owner and Generator Owner shall each keep all superseded portions of its Facility Ratings Methodology for 12 months beyond the date of the change in that methodology and shall keep all documented comments on the Facility Ratings Methodology and associated responses for three years. In addition, entities found non-compliant shall keep information related to the non-compliance until found compliant.

The Compliance Monitor shall keep the last audit and all subsequent compliance records.

1.4. Additional Compliance Information

The Transmission Owner and Generator Owner shall each make the following available for inspection during an on-site audit by the Compliance Monitor or within 15 business days of a request as part of an investigation upon complaint:

- 1.4.1 Facility Ratings Methodology
- 1.4.2 Superseded portions of its Facility Ratings Methodology that had been replaced, changed or revised within the past 12 months
- 1.4.3 Documented comments provided by a Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Authority on its technical review of a Transmission Owner’s or Generator Owner’s Facility Ratings methodology, and the associated responses

2. Levels of Non-Compliance

2.1. Level 1: There shall be a level one non-compliance if any of the following conditions exists:

- 2.1.1 The Facility Ratings Methodology does not contain a statement that a Facility Rating shall equal the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.
- 2.1.2 The Facility Ratings Methodology does not address one of the required equipment types identified in FAC-008 R1.2.1.
- 2.1.3 No evidence of responses to a Reliability Coordinator’s, Transmission Operator, Transmission Planner, or Planning Authority’s comments on the Facility Ratings Methodology.

2.2. Level 2: The Facility Ratings Methodology is missing the assumptions used to determine Facility Ratings or does not address two of the required equipment types identified in FAC-008 R1.2.1.

2.3. Level 3: The Facility Ratings Methodology does not address three of the required equipment types identified in FAC-008-1 R1.2.1.

2.4. Level 4: The Facility Ratings Methodology does not address both Normal and Emergency Ratings or the Facility Ratings Methodology was not made available for inspection within 15 business days of receipt of a request.

E. Regional Differences

None Identified.

Version History

Version	Date	Action	Change Tracking
1	01/01/05	1. Lower cased the word “draft” and “drafting team” where appropriate. 2. Changed incorrect use of certain hyphens (-) to “en dash” (–) and “em dash (—).” 3. Changed “Timeframe” to “Time	01/20/05

		Frame” and “twelve” to “12” in item D, 1.2.	
--	--	---	--

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. SAC approves SAR for posting (March 20, 2002).
2. Drafting team posts draft SAR for comment periods (April 2, 2002–May 3, 2002) (September 24, 2002–October 25, 2002) (December 13, 2002–January 31, 2003).
3. SAC approves development of standard (February 27, 2003).
4. JIC assigns development of standard to NERC (March 21, 2003).
5. Drafting team posts drafts for comment (July 1, 2003–August 29, 2003) (December 1, 2003–January 21, 2004) (February 18, 2005–April 3, 2005).
6. Drafting team posts Implementation Plan for comment (June 1, 2005–July 15, 2005).
7. Drafting team posts standards and Implementation Plan for 30-day pre-ballot review (September 1–30, 2005).
8. First ballot conducted October 4–14, 2005 but failed to achieve a quorum.
9. Re-ballot conducted October 18–November 8, 2005.
10. Recirculation ballot conducted November 15–28, 2005.

Description of Current Draft:

Final draft for Board Adoption.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Board adopts standard.	November 1, 2005
2. Effective date.	July 1, 2006

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.

No new terms introduced in this standard.

A. Introduction

1. **Title:** Establish and Communicate Facility Ratings
2. **Number:** FAC-009-1
3. **Purpose:** To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or methodologies.
4. **Applicability**
 - 4.1. Transmission Owner
 - 4.2. Generator Owner
5. **Proposed Effective Date:** July 1, 2006

B. Requirements

- R1. The Transmission Owner and Generator Owner shall each establish Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology.
- R2. The Transmission Owner and Generator Owner shall each provide Facility Ratings for its solely and jointly owned Facilities that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities to its associated Reliability Coordinator(s), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities.

C. Measures

- M1. The Transmission Owner and Generator Owner shall each be able to demonstrate that it developed its Facility Ratings consistent with its Facility Ratings Methodology.
 - M1.1 The Transmission Owner's and Generator Owner's Facility Ratings shall each include ratings for its solely and jointly owned Facilities including new Facilities, existing Facilities, modifications to existing Facilities and re-ratings of existing Facilities.
- M2. The Transmission Owner and Generator Owner shall each have evidence that it provided its Facility Ratings to its associated Reliability Coordinator(s), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities.

D. Compliance

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

Regional Reliability Organization
 - 1.2. **Compliance Monitoring Period and Reset Time Frame**

Each Transmission Owner and Generator Owner shall self-certify its compliance to the Compliance Monitor annually. The Compliance Monitor may conduct a targeted audit once in each calendar year (January–December) and an investigation upon complaint to assess performance.

The Performance-Reset Period shall be twelve months from the last finding of non-compliance.

1.3. Data Retention

The Transmission Owner and Generator Owner shall each keep documentation for 12 months. In addition, entities found non-compliant shall keep information related to the non-compliance until found compliant.

The Compliance Monitor shall retain audit data for three years.

1.4. Additional Compliance Information

The Transmission Owner and Generator Owner shall each make the following available for inspection during a targeted audit by the Compliance Monitor or within 15 business days of a request as part of an investigation upon complaint:

1.4.1 Facility Ratings Methodology

1.4.2 Facility Ratings

1.4.3 Evidence that Facility Ratings were distributed

1.4.4 Distribution schedules provided by entities that requested Facility Ratings

2. Levels of Non-Compliance

2.1. Level 1: Not all requested Facility Ratings associated with existing Facilities were provided to the Reliability Coordinator(s), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) in accordance with their respective schedules.

2.2. Level 2: Not all Facility Ratings associated with new Facilities, modifications to existing Facilities, and re-ratings of existing Facilities were provided to the Reliability Coordinator(s), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) in accordance with their respective schedules.

2.3. Level 3: Facility Ratings provided were not developed consistent with the Facility Ratings Methodology.

2.4. Level 4: No Facility Ratings were provided to the Reliability Coordinator(s), Planning Authority(ies), Transmission Planner(s), or Transmission Operator(s) in accordance with their respective schedules.

E. Regional Differences

None Identified.

Version History

Version	Date	Action	Change Tracking
1	08/01/05	<ol style="list-style-type: none"> 1. Lower cased the word “draft” and “drafting team” where appropriate. 2. Changed incorrect use of certain hyphens (-) to “en dash” (–) and “em dash (—).” 3. Changed “Timeframe” to “Time Frame” in item D, 1.2. 	01/20/06