

Facility Ratings Standard Drafting Team Meeting

August 27, 2007 — 1–5 p.m. Central Daylight Time
August 28, 2007 — 8 a.m.–3 p.m. Central Daylight Time

ERCOT
7620 Metro Center Drive
Austin, Texas 78744
512-225-7000

Meeting Agenda

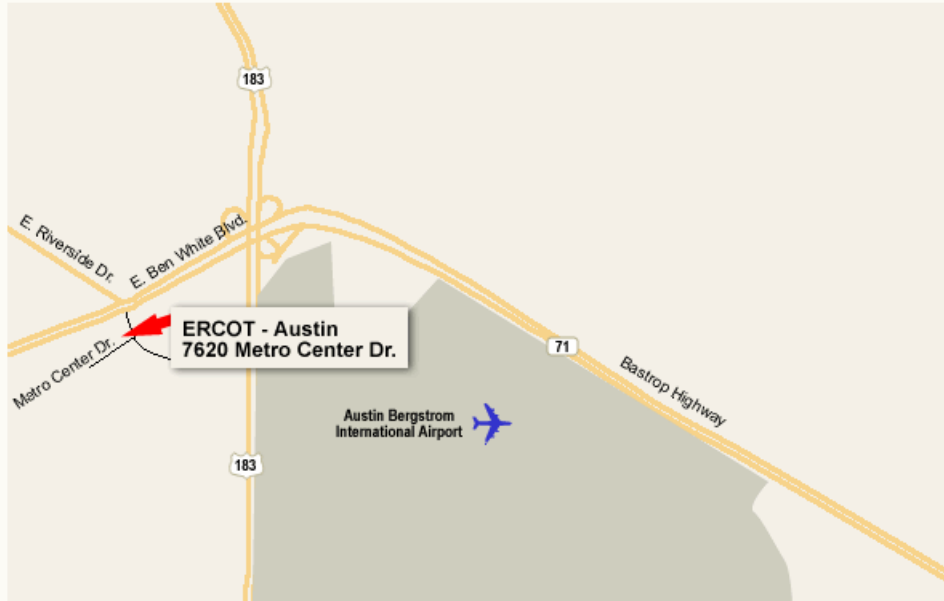
Note — ERCOT will provide lunch at noon on August 27, 2007.

1. **Lunch provided by ERCOT beginning at noon local time.** (Attachment 1 — Driving Directions to ERCOT)
2. **Introductions** (Attachment 2)
3. **Review of new NERC Antitrust Compliance Guidelines** (Attachment 3)
4. **Review purpose of meeting:**
 - a. Draft Responses to FERC NOPR on FAC-010, FAC-011, FAC-014 (**Attachment 4**)
 - b. Review, discuss and respond to FERC observations and stakeholder comments on Draft 2 of FAC-008-2 (**Attachment 5**)
 - c. Review and respond to comments submitted by stakeholders in response to Draft 2 of FAC-008 (**Attachment 6**)
 - d. Make conforming changes to FAC-008-2 (**Attachment 7**)
 - e. Determine next actions — another posting or move forward to ballot
5. **Set tentative date for next meeting**
6. **Adjourn**

ERCOT AUSTIN

7620 Metro Center Drive
Austin, Texas 78744
512-225-7000

Driving directions appear [below](#).



Driving Directions

- From Austin Bergstrom International Airport: Head west on Highway 71 (Ben White Blvd.) for approximately two miles.
- At the corner of Riverside Drive and Ben White Blvd., turn left.
- Immediately turn right on Metro Center Drive.
- The ERCOT Austin facility is located $\frac{1}{4}$ of a mile down the road, on the right side of the street, just past the La Quinta Inn and Suites parking lot.

Facility Ratings - Standard Drafting Team

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**Facility Rating August 27-28, 2007 Agenda
Attachment 2**

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NERC Antitrust Compliance Guidelines

I. General

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

II. Prohibited Activities

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

III. Activities That Are Permitted

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and

adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation and Bylaws are followed in conducting NERC business. Other NERC procedures that may be applicable to a particular NERC activity include the following:

- Reliability Standards Process Manual
- Organization and Procedures Manual for the NERC Standing Committees
- System Operator Certification Program

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.
- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

FERC proposes to approve FAC-010 subject to the following clarifications:

Consistency with Order No. 890

The Commission seeks comment on whether the development of a methodology for calculation of SOLs for the planning horizon pursuant to proposed Reliability Standard FAC-010-1 and the calculation of ATC for the long-term pursuant to NERC's Modeling, Data, and Analysis (MOD) Reliability Standards results in the consistent use of assumptions as required by Order No. 890.

(1) For a given set of conditions, the IROL and SOL values will change with the additional contingencies that are studied. Application of additional first contingencies and multiple contingencies will, in general, result in lower SOL limits as compared to those calculated with either the existing operational or planning contingencies. Is there a potential for the exercise of undue discrimination against transmission customers where, for example, a planning authority's SOL methodology calls for the application of a single contingency in determining SOLs pursuant to FAC-010-1 and the reliability coordinator and planning authority calculate ATC for the long-term using the assumption of multiple contingencies? Do the Order No. 890 transparency requirements mitigate any potential for the exercise of undue discrimination in this respect?

(2) In Order No. 693, the Commission required that total transfer capability (TTC) be addressed under the Reliability Standard that deals with transfer capability such as FAC-012-1, rather than MOD-001-0.18 The Commission disagreed with commenters suggesting that transfer capabilities addressed by FAC-012-1 are necessarily different from TTC used for ATC calculation. In a similar vein, the Commission seeks comment on whether the SOLs developed pursuant to FAC-010-1 are essentially the same as TTC used for ATC calculation. If so, should NERC address SOLs, transfer capability and TTC in a coordinated and consistent manner?

Requirement R2.2:

R2.2 of FAC-010-1 requires a planning authority to consider various single contingencies including the loss of a shunt device. While the transmission planning (TPL) Reliability Standards implicitly require the consideration of the loss of a shunt device, they do not require this explicitly. Should the Commission clarify the TPL Reliability Standards by requiring the ERO to modify them to explicitly require the consideration of a shunt device, consistent with FAC-010-1?

Requirement R2.3:

Requirement R2.3 provides that the system's response to a single contingency may include, inter alia, "planned or controlled interruption of electric supply to radial customers or some local network customers connected to or supplied by the Faulted Facility or by the affected area." The Commission seeks clarification whether this provision is limited to the loss of load that is a direct result of the contingency, i.e., consequential load, or whether this provision allows firm load shedding and firm transmission curtailment following a single contingency. In Order No. 693, the Commission determined that the single contingency provision should allow only the interruption of consequential load and seeks confirmation from the ERO that this proposed Reliability Standard conforms to this determination.

Planning Authority

The ERO should explain its plans to make FAC-010-1 consistent with the most recent iteration of the Functional Model, and how this may affect the applicability of the Reliability Standard to individual entities.

Compliance Monitor

NERC must remove references to the regional reliability organization as the entity responsible for compliance monitoring and replace it with either the Regional Entity or ERO.

WECC Regional Difference

Similar to our discussion regarding FAC-010-1, the Commission is concerned that the regional difference provides that the Western Interconnection may make changes to the contingencies required to be studied or required responses to contingencies based on actual system performance. Presumably, such change would be developed by WECC. However, the Reliability Standard does not identify any process for making such changes or indicate whether the requirements for reasonable notice and opportunity for public comment, due process, openness and balance of interests will be met in making such changes. Accordingly, we propose that WECC should identify the process that it will use to make changes to the currently listed contingencies required to be studied or required responses to contingencies. Further, the Commission seeks comment on whether the regional difference should be modified to explicitly include the process that WECC will use to make changes to the currently listed contingencies.

FERC proposes to approve FAC-011 subject to the following clarifications:

Consistency with Order No. 890

(1) Is there a potential for the exercise of undue discrimination against transmission customers where, for example, a reliability coordinator's SOL methodology calls for the application of a single contingency in determining SOLs pursuant to FAC-011-1 and the reliability coordinator and planning authority calculate ATC for the short-term using the assumption of multiple contingencies? Do the Order No. 890 transparency requirements mitigate any potential for the exercise of undue discrimination in this respect?

(2) In Order No. 693, the Commission required that TTC be addressed under the Reliability Standard that deals with transfer capability such as FAC-012-1, rather than MOD-001-0. The Commission disagreed with commenters suggesting that transfer capabilities addressed by FAC-012-1 are necessarily different from TTC used for ATC calculation. In a similar vein, the Commission seeks comment on whether the SOLs developed pursuant to FAC-011-1 are essentially the same as TTC used for ATC calculation. If so, should NERC address SOLs, transfer capability and TTC in a coordinated and consistent manner?

WECC Regional Difference

... the Reliability Standard does not identify any process for making such changes or indicate whether the requirements for reasonable notice and opportunity for public comment, due process, openness and balance of interests will be met in making such changes. Accordingly, we propose that WECC should identify the process that it will use to make changes to the currently listed contingencies required to be studied or required responses to contingencies. Further, the Commission seeks comment on whether the regional difference should be modified to explicitly include the process that WECC will use to make changes to the currently listed contingencies.

Requirement R2.2

Requirement R2.2 of FAC-011-1 requires a reliability coordinator to consider various single contingencies including the loss of a shunt device. While the TPL Reliability Standards implicitly require the consideration of the loss of a shunt device, they do not require this explicitly. Should the TPL Reliability Standards be modified to explicitly require the consideration of a shunt device, consistent with FAC-011-1?

Requirement R2.3.2:

As mentioned above, Requirement R2.3.2 provides that the system's response to a single contingency may include, inter alia, "[i]nterruption of other network customers, only if the system has already been adjusted, or is being adjusted, following at least one prior outage, or, if the real-time operating conditions are more adverse than anticipated in the corresponding studies, e.g., load greater than studied." The Commission seeks clarification from the ERO regarding the meaning of the phrase "if the real-time operating conditions are more adverse than anticipated in the corresponding studies, e.g., load greater than studied." In particular, the Commission is concerned whether this provision treats load forecast error as a contingency and as such would allow an interruption due to an inaccurate weather forecast.

Compliance Monitor:

Finally, NERC must remove references to the regional reliability organization as the entity responsible for compliance monitoring and replace it with either the Regional Entity or ERO.

FERC proposes to approve FAC-014 subject to the following clarifications:

Compliance Monitor

NERC must remove references to the regional reliability organization as the entity responsible for compliance monitoring and replace it with either the Regional Entity or ERO.

FERC proposes to approve Definitions subject to the following clarifications:

Cascading Outage:

The current definition of Cascading Outages in the approved NERC glossary is “The uncontrolled successive loss of system elements triggered by an incident at any location. Cascading results in widespread electric service interruption that cannot be restrained from sequentially spreading beyond an area predetermined by studies.” The ambiguity in the term relates to the last phrase in the definition which identifies the extent of an outage that would be considered a cascade. The revised definition uses the similar phrase “a pre-determined area” which may lead to different interpretations. The Commission understands that this phrase has been interpreted as being as small as the elements that would be removed from service by local protective relays to as large as the entire balancing authority. Simply put, some applications of Cascading Outage could allow the loss of an entire balancing authority and not consider that loss to be a Cascading Outage. The Commission disagrees with such a liberal application.

For purposes of compliance, the Commission proposes to direct NERC to consider the loss of facilities in the bulk electric systems that are beyond those that would be removed from service by primary or backup protective relaying associated with the initiating event to be a Cascading Outage. With this understanding of the phrase, the Commission proposes to accept the definition in FAC-014.

IROLs

The revised definition is consistent with the intent of the statute with the exception of the phrase “that adversely impacts the reliability of the bulk electric system.” This may give the impression that violation of some IROLs that do not adversely impact the reliability of the bulk electric system are acceptable. The Commission proposes to accept the definition in FAC-014 with the understanding that all IROLs impact bulk electric system reliability.

In Order No. 693, the Commission identified two interpretations of when an entity exceeds an IROL. The definition of IROL T_v does not distinguish between those two interpretations. The Commission proposes to accept the definition in FAC-014 with the understanding that the only time it is acceptable to violate an IROL is in the limited time after a contingency has occurred and the operators are taking action to eliminate the violation.

From Order 693, P 946 and footnote 303

946. The Commission clarifies the intent of and need for the proposed survey. We reiterate that the intent is to learn about the operating experiences and practices of operating entities; specifically, how they operate their systems to respect IROLs in the normal system conditions, i.e. prior to a contingency. The survey results will facilitate future development and modifications of IROL-related Reliability Standards to better clarify and eliminate potential multiple interpretations of respecting IROLs that may exist in the proposed Reliability Standards. In addition, the survey will identify the reliability risks and the frequency

Response to NOPR on FAC-010, FAC-011, FAC-014

and number of operating practices involving drifting in and out of IROL. The survey results will also provide guidance on the frequency, duration and magnitude of IROL violations, their causes and whether these IROL violations occur during normal or contingency conditions.

Order 693 footnote 303: NOPR at P 540: IRO-005-1 could be interpreted as allowing a system operator to respect IROLs in two possible ways: (1) allowing IROL to be exceeded during normal operations, i.e., prior to a contingency, provided that corrective actions are taken within 30 minutes or (2) exceeding IROL only after a contingency and subsequently returning the system to a secure condition as soon as possible, but no longer than 30 minutes. Thus, the system can be one contingency away from potential cascading failure if operated under the first interpretation and two contingencies away from cascading failure under the second interpretation.

Violation Risk Factors

46. In the Violation Risk Factor Order, the Commission addressed Violation Risk Factors filed by NERC for Version 0 and Version 1 Reliability Standards. In that order, the Commission used five guidelines for evaluating the validity of each Violation Risk Factor assignment: (1) consistency with the conclusions of the Final Report on the August 14, 2003 blackout in the United States and Canada,³⁵ (2) consistency within a Reliability Standard, (3) consistency among Reliability Standards with similar Requirements, (4) consistency with NERC's proposed definition of the Violation Risk Factor level, and (5) assignment of Violation Risk Factor levels to those Requirements in certain Reliability Standards that co-mingle a higher risk reliability objective and a lower risk reliability objective.

WECC Risk Factors

First, the Commission notes that there are no Violation Risk Factors applicable to the WECC regional differences and that certain portions of the WECC regional differences lack levels of non-compliance. The Commission requests comment on whether it should require WECC to develop Violation Risk Factors and the levels of non-compliance for the regional differences. If so, we request comment on how WECC should assess penalties in the interim.

FAC-010-1 R2 and its sub-requirements

In FAC-010-1, the Commission proposes to direct NERC to modify the lower Violation Risk Factor assigned to Requirement R2 and the medium Violation Risk Factor assigned to sub-Requirements R2.1 – R2.2.3 based on guideline (4), which was developed to evaluate whether the assignment of a particular Violation Risk Factor level conforms to NERC's definition of that risk level.

49. FAC-010-1 Requirement R2 requires the Planning Authority's SOL methodology to include a requirement that SOLs provide bulk electric system performance consistent with a stable pre-contingency (sub-Requirement R2.1) and post-contingency (sub-Requirements 2.2 – R2.2.3) bulk electric system using an accurate system topology with all facilities operating within their ratings and without post-contingency cascading outages or uncontrolled separation.

50. NERC has assigned a lower Violation Risk Factor to Requirement R2.1, which requires the bulk electric system in a pre-contingency state and with all facilities in service to demonstrate transient, dynamic and voltage stability. The Commission believes that the lower assignment is inappropriate. A violation of a lower Violation Risk Factor, by definition, is generally considered administrative in nature and would not be expected to affect the electrical state or capability of the Bulk-Power System, or the ability to effectively monitor, control or restore the Bulk-Power System. The Commission believes that the lower Violation Risk Factor NERC proposes for this Requirement is not consistent with the "lower" definition, but consistent with the definition of "high." The Commission believes that a violation of Requirement R2.1 could directly cause or contribute to Bulk-Power System instability, separation or cascading failures since a violation of R2.1 means that the system is in an unreliable state even before the system is subject to respond to a contingency. Therefore, we propose to require NERC to change the Violation Risk Factor of R.2.1 to high.

51. Similarly, NERC assigns a medium violation Risk Factor to FAC-010-1 R2.2, which would be appropriate if a violation is unlikely to lead to Bulk-Power System instability, separation or cascading failures. However, Requirement R2.2 specifically states that with regard to post-contingency bulk electric system performance, "[c]ascading outages or uncontrolled separation shall not occur." Therefore, if Requirement R2.2 is violated for any one of the specific contingencies as described in Requirements R2.2.1 – R2.2.3, cascading outages or uncontrolled separation of the Bulk- Power System may occur. The

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potential risk a violation of R2.2 poses to the Bulk-Power System is not consistent with the definition of a medium Violation Risk Factor. Instead, the risk a violation of R2.2 presents to the Bulk-Power System is consistent with the definition of a high Violation Risk Factor. Therefore, we propose to require NERC to change the Violation Risk Factor of R.2.2 to high.

52. As stated in the Violation Risk Factor Order, the Commission expects a rational connection between the sub-Requirement Violation Risk Factor assignments and the main Requirement Violation Risk Factor assignment. Because the Commission proposes to require NERC to modify the Violation Risk Factors for the sub-requirements of R2, to have a rational connection between the Violation Risk Factors assigned to sub-Requirements and Violation Risk Factors assigned to the main Requirement, we are also proposing to require NERC to change the Violation Risk Factor for R2 to high.

53. Similarly, the Commission has the same concern and proposal to reassign NERC's Violation Risk Factors for FAC-011-1 Requirement R2 and sub-Requirements R2.1 – 2.2.3, which contain similar language as the corresponding Requirements in FAC-010-1.

54. With regard to FAC-014-1, our concerns are with NERC's proposed Violation Risk Factor assignment of medium to Requirement R5 and sub-Requirements R5.1 – 5.1.4. Requirement R5 requires that the reliability coordinator, planning authority and transmission planner each provide its SOLs and IROLs to those entities that have a reliability-related need for those limits and provide a written request that includes a schedule for delivery of those limits. Sub-Requirements R5.1 – R5.1.4 comprise the list of supporting information to be provided. The Commission has concerns with NERC's proposed assignment based on its lack of consistency with the Final Blackout Report.

55. The Commission believes that it is important to ensure that critical areas identified as causes of the August 2003 and other previous major blackouts are appropriately assigned as potential risks to the reliability of the Bulk-Power System. For example, the Final Blackout Report identified ineffective communications as one common factor of the August 2003 blackout and other previous major blackouts. The Final Blackout Report explained that, “[u]nder normal conditions, parties with reliability responsibility need to communicate important and prioritized information to each other in a timely way, to help preserve the integrity of the grid.”

56. The Commission believes that NERC's proposed Violation Risk Factor assignment of medium for the subject Requirements is not consistent with the findings of the Final Blackout Report. By definition, a “medium” Violation Risk Factor designation means that a violation of the requirement is unlikely to lead to Bulk-Power System instability, separation or cascading failures. Findings of the Final Blackout Report, as well as reports on other previous major blackouts, have determined otherwise in that the timely communication of important and prioritized information, in this case, SOLs and IROLs, to entities that have a reliability-related need for those limits are crucial in maintaining the reliability of the Bulk-Power System.

57. As a result, we propose to require NERC to assign FAC-014-1 Requirement R5, as well as sub-Requirements R5.1 – R5.1.4, a high Violation Risk Factor to accurately reflect the potential risk a violation of the subject requirements presents to the Bulk-Power System.

A. Introduction

1. **Title:** Facility Ratings
2. **Number:** FAC-008-2
3. **Purpose:** To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on technically sound principles. A Facility Rating is essential for the determination of System Operating Limits.
4. **Applicability**
 - 4.1. Transmission Owner.
 - 4.2. Generator Owners with units in a plant directly connected to the BES and units in a plant with [MEL1] an aggregate > 300 MVA (gross nameplate rating) not directly connected to the BES
5. **Proposed Effective Date:** The first day of the first calendar quarter that is twelve months beyond the date approved by applicable regulatory authorities.

B. Requirements [MEL2]

- R1. The Generator Owner shall have a documented methodology for determining the Facility Ratings (Facility Ratings Methodology) of [MEL3] its solely and jointly owned generating unit Facilities that identifies how each of the [MEL4] following were considered: *[Violation Risk Factor: Lower] [Time Horizon: Long-term Planning]*
 - R1.1. Facility commissioning data.
 - R1.2. Performance history or rating verification accompanied by engineering analysis.
 - R1.3. Ratings provided by equipment manufacturers.
 - R1.4. Ambient conditions.
 - R1.5. Equipment Rating standard(s) used in development of this methodology.
- R2. The Transmission Owner and Generator Owner shall each have a documented methodology for determining Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned Facilities (except for those generating Facilities addressed in R1) that contains all of the following: *[Violation Risk Factor: Lower] [Time Horizon: Long-term Planning]*
 - R2.1. The methodology used to establish the Ratings of the Equipment that comprises the Facility shall be consistent with one or more industry Equipment Rating standards or guidelines.¹ [MEL5]
 - R2.2. The underlying assumptions, design criteria, and methods used to determine the Equipment Ratings identified in R2.1 including identification of how the following were considered:
 - R2.2.1. Equipment Rating standard(s) used in development of this methodology.

¹ The industry Equipment Rating standard or practice used must be either a **nameplate rating**; IEEE Standards or Guides; or a recognized, published industry-accepted practice such as a CIGRE guideline, or other similar documents.

- R2.2.2.** Ratings provided by equipment manufacturers.
- R2.2.3.** Ambient conditions (for particular or average conditions or as they vary in real-time).
- R2.2.4.** Operating limitations.²
- R2.3.** A statement that a Facility Rating shall respect the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility[MEL6].
- R2.4.** The method by which the Rating (of equipment that comprises a Facility) is determined.
 - R2.4.1.** The scope of equipment addressed shall include, but not be limited to, transmission conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.
 - R2.4.2.** The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.
- R3.** 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 Coordinators that have responsibility for the area in which the associated Facilities are located, within 21 calendar days of receipt of a request. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning*]
- R4.** If a Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator 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 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. [*Violation Risk Factor: Lower*] [*Mitigation Time Horizon: Operations Planning*]
- R5.** The Transmission Owner and Generator Owner shall each have Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]
- R6.** 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 Coordinator(s), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]

² Including temporary de-ratings of impaired equipment in accordance with good utility practice.

R7. If a Transmission Owner receives a request (from an associated Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator^[MEL7]) for identification of the most limiting Equipment that comprises a Facility and the hypothetical increase in the Facility's Rating if that most limiting Equipment that comprises that Facility were not considered in the development of that Facility Rating, the Transmission Owner shall provide the requested information within 30 calendar days, (or a later date if specified by the requester) if the Facility Rating meets all of the following criteria: *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*

R7.1. It is a thermal rating.

R7.2. It is not limited by a conductor rating.

R7.3. It can be classified as one of the following:

- An Interconnection Reliability Operating Limit
- A limitation of Total Transfer Capability
- An impediment to generation deliverability
- An impediment to service to major cities or load pockets

C. Measures

M1. The Generator Owner shall have a documented Facility Ratings Methodology that considers all of the items identified in Requirement 1.1 through Requirement 1.5.

M2. The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the items identified in Requirement 2.1 through Requirement 2.4.

M3. The Transmission Owner and Generator Owner shall each have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it made its Facility Ratings Methodology available for inspection within 21 calendar days of a request in accordance with Requirement 3.

M4. If the Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator 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, (such as a copy of a dated electronic note or other comparable evidence from the Transmission Owner or Generator Owner addressed to the commenter that includes the response to the comment, that it provided a response to that commenting entity in accordance with Requirement 4.

M5. The Transmission Owner and Generator Owner shall have evidence to show or shall be able to demonstrate that its Facility Ratings are consistent with its Facility Ratings Methodology (Requirement 5).

M6. The Transmission Owner's and Generator Owner's set of Facility Ratings shall include ratings for its solely and jointly owned Facilities including new Facilities, existing Facilities, modifications to existing Facilities and re-ratings of existing Facilities. (Requirement 5)

M7. The Transmission Owner and Generator Owner shall each have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it provided its Facility Ratings to its associated Reliability Coordinator(s), Planning

Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with Requirement 6.

- M8.** The Transmission Owner shall each have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it provided requested information (identification of the most limiting Equipment that comprises a Facility and the hypothetical increase in the Facility's Rating if that most limiting Equipment that comprises that Facility were not considered in the development of that Facility's Rating) to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with Requirement 7.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Entity

1.2. Compliance Monitoring Period and Reset Timeframe

One or more of the following methods will be used to assess compliance:

- Self-certification (conducted annually with submission according to schedule).
- Spot check audits (conducted anytime with up to 30 days notice given to prepare).
- Periodic audit (conducted once every three years according to schedule for the Transmission Operator and once every six years according to schedule for the Generator Operator).
- Investigations.
- Other methods as provided for in the Compliance Monitoring Enforcement Program.

The Reset Timeframe shall be one month from the last finding of noncompliance.

1.3. Data Retention

The Generator Owner shall keep its evidence for Measures 1 through 7 for three years plus current, or since the last audit, whichever is longer.

The Transmission Owner shall keep its evidence for Measures 2 through 7 for three years plus current or since the last audit, whichever is longer.

If a Generator Owner or Transmission Owner is found non-compliant, it 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:

1.4.1 Facility Ratings Methodology.

- 1.4.2 Industry Equipment Rating standards or practice(s) used for developing Equipment Ratings.
- 1.4.3 Superseded portions of its Facility Ratings Methodology that had been replaced, changed or revised within the past 12 months.
 - 1.4.3.1 The Compliance Monitor may, at its determination, request some or all the previous three years of the superseded portions of the entity's Facility Ratings Methodology that had been replaced, changed or revised as part of an audit or investigation.
- 1.4.4 Documented comments provided by a Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings methodology, and the associated responses.
- 1.4.5 Facility Ratings.
- 1.4.6 Evidence that Facility Ratings were distributed.
- 1.4.7 Distribution schedules provided by entities that requested Facility Ratings.

2. Violation Severity Levels

- 2.1. **Lower:** There shall be a lower violation if one or more 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 R2.4.1.
 - 2.1.3 No evidence of responses to a Reliability Coordinator's, Transmission Operator, Transmission Planner, or Planning Coordinator's comments on the Facility Ratings Methodology.
 - 2.1.4 Not all requested Facility Ratings associated with existing Facilities were provided to the Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with their respective schedules.
 - 2.1.5 The Facility Ratings Methodology was not made available for inspection within 22 business days of receipt of a request, but was provided within 28 calendar days of receipt.
- 2.2. **Moderate:** There shall be a moderate violation if one or more of the following conditions exists:
 - 2.2.1 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 R2.4.1.
 - 2.2.2 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 Coordinator(s), Transmission

Planner(s), and Transmission Operator(s) in accordance with their respective schedules.

2.2.3 The Facility Ratings Methodology was not made available for inspection within 29 business days of receipt of a request, but was provided within 42 calendar days of receipt.

2.3. High: There shall be a high violation if one or more of the following conditions exists:

2.3.1 The Facility Ratings Methodology does not address three or more of the required equipment types identified in FAC-008 R2.4.1.

2.3.2 Facility Ratings provided were not developed consistent with the Facility Ratings Methodology.

2.3.3 The Facility Ratings Methodology was not made available for inspection within 42 business days of receipt of a request, but was provided within 56 calendar days of receipt.

2.4. Severe: There shall be a severe violation if one or more of the following conditions exists:

2.4.1 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.

2.4.2 No Facility Ratings were provided to the Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), or Transmission Operator(s) in accordance with their respective schedules.

2.4.3 The Facility Ratings Methodology was not made available for inspection within 57 calendar days of receipt of a request, or was not provided for inspection at all.

E. Regional Variances

None Identified

F. Associated Documents

None Identified

Version History

Version	Date	Action	Change Tracking
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FERC's 5 Factors for reviewing 'new' VRFs are:

1. Consistency with the conclusions of the Final Report on the August 14, 2003 blackout in the United States and Canada
2. Consistency within a Reliability Standard
3. Consistency among Reliability Standards with similar Requirements
4. Consistency with NERC's proposed definition of the Violation Risk Factor level
5. Assignment of Violation Risk Factor levels to those Requirements in certain Reliability Standards that co-mingle a higher risk reliability objective and a lower risk reliability objective

Applicability for Generator Owners/Operators from Registration Criteria:

III(c) Generator Owner/Operator:

- III.c.1 Individual generating unit > 20 MVA (gross nameplate rating) and is directly connected to the bulk power system, or;
- III.c.2 Generating plant/facility > 75 MVA (gross aggregate nameplate rating) or when the entity has responsibility for any facility consisting of one or more units that are connected to the bulk power system at a common bus with total generation above 75 MVA gross nameplate rating, or;
- III.c.3 Any generator, regardless of size, that is a blackstart unit material to and designated as part of a transmission operator entity's restoration plan, or;
- III.c.4 Any generator, regardless of size, that is material to the reliability of the bulk power system.

[Exclusions:

A generator owner/operator will not be registered based on these criteria if responsibilities for compliance with approved NERC reliability standards or associated requirements including reporting have been transferred by written agreement to another entity that has registered for the appropriate function for the transferred responsibilities, such as a load-serving entity, G&T cooperative or joint action agency as described in Sections 501 and 507 of the NERC Rules of Procedure.

As a general matter, a customer-owned or operated generator/generation that serves all or part of retail load with electric energy on the customer's side of the retail meter may be excluded as a candidate for registration based on these criteria if (i) the net capacity provided to the bulk power system does not exceed the criteria above or the Regional Entity otherwise

determines the generator is not material to the bulk power system and (ii) standby, back-up and maintenance power services are provided to the generator or to the retail load pursuant to a binding obligation with another generator owner/operator or under terms approved by the local regulatory authority or the Federal Energy Regulatory Commission, as applicable.]

Consideration of Comments on Second Draft of FAC-008-2 (Project 2006-09)

The Facility Ratings standard requesters thank all commenters who submitted comments on the 2nd draft of the standard. This standard was posted for a 30-day public comment period from July 19 through August 17, 2007. The requesters asked stakeholders to provide feedback on the standard through a special Standard Comment Form. There were 34 sets of comments, including comments from 121 different people from more than 50 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received, the drafting team is recommending .

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

http://www.nerc.com/~filez/standards/Facility_Ratings_Project_2006-09.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

The Industry Segments are:

- 1 – Transmission Owners
- 2 – RTOs, ISOs
- 3 – Load-serving Entities
- 4 – Transmission-dependent Utilities
- 5 – Electric Generators
- 6 – Electricity Brokers, Aggregators, and Marketers
- 7 – Large Electricity End Users
- 8 – Small Electricity End Users
- 9 – Federal, State, Provincial Regulatory or other Government Entities
- 10 – Regional Reliability Organizations, Regional Entities

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	J. Bussman	AECI	✓				✓	✓						
2.	Thad K. Ness	AEP	✓				✓	✓						
3.	Anita Lee (G4)	AESO		✓										
4.	Darrell Pace (G2)	Alabama Electric Cooperative	✓											
5.	Mike Mears (G5)	Alcoa Power Generating, Inc.						✓						
6.	Kirit Shah	Ameren	✓					✓						
7.	Robert Ferguson (G5)	Ameren						✓						
8.	Jason Shaver	American Transmission Co.	✓											
9.	Bill Keagle	Baltimore Gas and Electric	✓											
10.	Tayo Oyelade	Baltimore Gas and Electric	✓											
11.	Brian D. Bartos	Bandera Electric Cooperative, Inc.	✓											
12.	Mike Thompson (G5)	Bid Rivers Electric Coop						✓						
13.	Brent Kingsford (G4)	CAISO		✓										
14.	Karl Kohlrus	City Water, Light & Power-Springfield, IL						✓						
15.	Edwin Thompson (G1)	ConEdison	✓											
16.	Jeanne Kurzynowski (G7)	Consumers Energy			✓	✓								
17.	Rick Blumenstock	Consumers Energy				✓								
18.	Greg Rowland	Duke Energy	✓		✓			✓						
19.	Gary Humphries (G5)	Duke Energy Carolinas						✓						
20.	Greg Mason (I)(G7)	Dynegy						✓						

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
21.	Charles Long (G2)	Entergy	✓											
22.	Jules Guillot (G3)	Entergy Services					✓							
23.	Stanley Jaskot (G3)(G5)	Entergy Services					✓							
24.	Will Franklin (G3)	Entergy Services						✓						
25.	Steve Myers (I)(G4)	ERCOT		✓										✓
26.	John Stephens (G6)	FE, Energy Deliver Transmission Planning	✓											
27.	Dave Folk (G6)	FE, FERC Compliance	Various											
28.	Ken Dresner (G6)	FE, Fossil Generation					✓							
29.	Bill Duge (G6)	FE, Nuclear Generation					✓							
30.	Jon Stephens (G7)	First Energy	✓											
31.	Sam Ciccone (G6)(G7)	First Energy, FERC Compliance	✓											
32.	Doug Hohlbaugh (G6)	FirstEnergy Corp.	✓		✓		✓	✓						
33.	Robert C. Williams	Florida Municipal Power Agency												
34.	Ross Kovacs (G5)	Georgia Transmission Corporation					✓							
35.	Gwen Frazier (G9)	Gulf Power Company	✓											
36.	David Kiguel (G1)	Hydro One Networks		✓										
37.	Roger Champagne (I)(G1)	Hydro Quebec TransEnergie	✓											
38.	Ron Falsetti (I)(G1)(G4)	IESO		✓										
39.	Charles Yeung (G4)	ISO/RTO Council		✓										
40.	Kathleen Goodman (I)(G1)	ISO-New England		✓										
41.	Matt Goldberg (G4)	ISO-New England		✓										
42.	Brian Thumm (I)(G7)	ITC	✓											
43.	Jim Cyrulewski (G7)	JDRJC Associates									✓			
44.	Michael Gammon	Kansas City Power & Light	✓											

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
45.	Joseph DePoorter (I)(G7)	Madison Gas & Electric				✓								
46.	Donald Nelson (G1)	MA-DPU/EPD										✓		
47.	Michelle Rheault	Manitoba Hydro	✓		✓		✓	✓						
48.	Allen McKee (G2)	Midwest ISO		✓										
49.	Jason Marshall (G7)	Midwest ISO		✓										
50.	William Phillips (G4)	MISO		✓										
51.	Bill DeVries (G1)	New York ISO		✓										
52.	Jim Castle (G4)	New York ISO		✓										
53.	Ralph Rufrano (G1)	New York Power Authority	✓											
54.	Diane Barney (G1)	New York PSC										✓		
55.	Al Adamson (G1)	New York State Reliability Council												✓
56.	Michael Schiavne (G1)	NGrid	✓											
57.	Mike Ranalli (G1)	NGrid	✓											
58.	Brian Hogue (G1)	NPCC												✓
59.	Guy V. Zito (G1)	NPCC												✓
60.	Jeff Crandall	NYSEG/RG&E	✓											
61.	John Mayhan	Omaha Public Power District	✓											
62.	Ellis Rankin	Oncor Electric Delivery	✓											
63.	Stan Southers	Oncor Electric Delivery	✓											
64.	Larry Larson (G7)	Otter Tail Power Corporation	✓											
65.	Jane Verner	Pepco Holdings, Inc	✓											
66.	Richard Kafka	Pepco Holdings, Inc	✓											
67.	Alicia Daugherty (G4)	PJM		✓										
68.	Chris Georgeson (G5)	Progress Energy						✓						
69.	John Babinec (G5)	Progress Energy						✓						
70.	Paul Gaffney (G5)	Progress Energy						✓						
71.	Thomas J. Bradish	Reliant Energy						✓						
72.	Pat Longshore	SC Electric and Gas	✓		✓			✓						

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
	(G5)(G8)													
73.	Phil Kleckley (G2) (G8)	SC Electric and Gas	✓		✓		✓							
74.	Henry Schweers (G5)	SC Public Service Authority					✓							
75.	Andy Bowden (G8)	SCE&G ERO Working Group	✓		✓		✓							
76.	Arnie Cribb (G8)	SCE&G ERO Working Group	✓		✓		✓							
77.	Bob Smith (G8)	SCE&G ERO Working Group	✓		✓		✓							
78.	Brad Stokes (G8)	SCE&G ERO Working Group	✓		✓		✓							
79.	Dan Goldston (G8)	SCE&G ERO Working Group	✓		✓		✓							
80.	Ernie Gibbons (G8)	SCE&G ERO Working Group	✓		✓		✓							
81.	Henry Delk (G8)	SCE&G ERO Working Group	✓		✓		✓							
82.	Hubert C. Young (G8)	SCE&G ERO Working Group	✓		✓		✓							
83.	Jay Hammond (G8)	SCE&G ERO Working Group	✓		✓		✓							
84.	Jerry Lindler (G8)	SCE&G ERO Working Group	✓		✓		✓							
85.	John T. Blalock (G8)	SCE&G ERO Working Group	✓		✓		✓							
86.	Marcus Harris (G8)	SCE&G ERO Working Group	✓		✓		✓							
87.	Marion Frick (G8)	SCE&G ERO Working Group	✓		✓		✓							
88.	Richard Jones (G8)	SCE&G ERO Working Group	✓		✓		✓							
89.	Sally Wofford (G8)	SCE&G ERO Working Group	✓		✓		✓							
90.	Shawn McCarthy (G8)	SCE&G ERO Working Group	✓		✓		✓							
91.	Simon Shealy (G8)	SCE&G ERO Working Group	✓		✓		✓							
92.	Terrence J. Harris (G8)	SCE&G ERO Working Group	✓		✓		✓							
93.	Todd Johnson (G8)	SCE&G ERO Working Group	✓		✓		✓							
94.	Wayne Stuart (G8)	SCE&G ERO Working Group	✓		✓		✓							
95.	Roger Green (G5)	SERC GS					✓							
96.	Pat Huntley (G2)	SERC Reliability Corp												✓
97.	Chris Schaeffer (G5)	SERC Reliability Corp.												✓

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
98.	Jim Busbin (G9)	Southern Company - Transmission	✓											
99.	Tom Higgins (G5)	Southern Company Generation					✓							
100.	Bob Jones (G2)	Southern Company Services	✓											
101.	Marc Butts (G9)	Southern Company Services	✓											
102.	Roman Carter (G9)	Southern Company Services	✓											
103.	Doug McLaughlin (G9)	Southern Company Services	✓											
104.	Keith Calhoun (G9)	Southern Company Services	✓											
105.	Tom Sims (G9)	Southern Company Services	✓											
106.	Tom Higgins (G9)	Southern Company Services					✓							
107.	Terry Crawley (G9)	Southern Company Services					✓							
108.	Jim Viikinsalo (G9)	Southern Company Services	✓											
109.	J T Wood (G9)	Southern Company Services	✓											
110.	Travis Sykes (G2)	Tennessee Valley Authority	✓											
111.	Mark Marcum (G5)	TVA					✓							
112.	Bob Pelligrini (G1)	United Illuminating	✓											
113.	Barb Kedrowski (G7)	We Energies			✓		✓							
114.	David Kral	Xcel Energy Services	✓		✓		✓							

I – Indicates that individual comments were submitted in addition to comments submitted as part of a group

G1 – NPCC CP9 Reliability Standards Working Group (NPCC CP9 RSWG)

G2 – SERC EC Planning Standards Subcommittee

G3 – Entergy Services, Inc. Fossil Generation

G4 – ISO/RTO Council

G5 – SERC Generation Subcommittee

G6 – FirstEnergy Corp.

G7 – Midwest ISO Stakeholders

G8 – SCE&G ERO Working Group

G9 – Southern Company – Transmission

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Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

1. FERC directed NERC to give consideration to the following suggestion relative to the need to identify the underlying assumptions and methods used to determine normal and emergency facility ratings:
 - EEI suggested that having the underlying assumptions and methods used to determine normal and emergency facility ratings available for review upon request of a registered user, owner or operator should be considered by the ERO in its Reliability Standards development process.

Under the proposed standard (R3), this information is made available (within 21 calendar days of a request) to those Reliability Coordinators, Transmission Operators, Transmission Planners and Planning Coordinators that have responsibility for the area in which the associated Facilities are located.

Do you believe additional changes are needed based on EEI’s suggestion?

Summary Consideration: Most commenters indicated that they do not believe that additional changes are needed based on EEI’s suggestion.

Question #1			
Commenter	Yes	No	Comment
NPCC	<input checked="" type="checkbox"/>		NPCC participating Members agree but may need revisions to the words to ensure objective is accomplished. Emergency ratings should be clarified as 15 minutes and 4 hours ratings. Also the summer and winter ratings should be mentioned.
Response:			
Hydro-Québec TransÉnergie	<input checked="" type="checkbox"/>		NPCC participating Members agree but may need revisions to the words to ensure objective is accomplished. Emergency ratings should be clarified as 15 minutes and 4 hours ratings. Also the summer and winter ratings should be mentioned.
Response:			
ATC	<input checked="" type="checkbox"/>		ATC believes that entities should be granted thirty (30) days to respond.
Response:			
IESO	<input checked="" type="checkbox"/>		
ISO-New England	<input checked="" type="checkbox"/>		
ITC		<input checked="" type="checkbox"/>	Reliability Standards need only concern themselves with the development and application of a facility rating methodology, not the dissemination of underlying assumptions to registered users.
Response:			
Madison Gas & Electric Co.		<input checked="" type="checkbox"/>	It is reasonable that some of the other registered users, owners or operators would want access to transmission ratings methodologies and values. However, there are other

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #1			
Commenter	Yes	No	Comment
			avenues that are available to gather this data such as through the interconnection request processes. It is not a reliability related issue.
Response:			
Bandera Electric Cooperative, Inc.		<input checked="" type="checkbox"/>	The proposed language should be sufficient to address the issue identified by EEI.
Response:			
Dynegy		<input checked="" type="checkbox"/>	It is reasonable that some of the other registered users, owners or operators would want access to transmission ratings methodologies and values. However, there are other avenues that are available to gather this data such as through the interconnection request processes. It is not a reliability related issue.
Response:			
AECI		<input checked="" type="checkbox"/>	AECI does not believe the changes are needed because the present standard requires that the Methodology is made available in R2.
Response:			
Baltimore Gas and Electric		<input checked="" type="checkbox"/>	R3 is sufficient as proposed
Response:			
Manitoba Hydro		<input checked="" type="checkbox"/>	As a transmission owner, we are responsible for establishing facility ratings based on the risk we are willing to take that our equipment is damaged. As long as our rating methodology does not unfairly favour our own loads or generators, the opportunity for review of the methodology should be limited to the entities that use the ratings, and not all users or operators.
Response:			
Oncor Electric Delivery		<input checked="" type="checkbox"/>	The standard as is provides for meaningful review by responsible entities in the interest of reliability.
Response:			
Midwest ISO		<input checked="" type="checkbox"/>	It is reasonable that some of the other registered users, owners or operators would want access to transmission ratings methodologies and values. However, there are other avenues that are available to gather this data such as through the interconnection request processes. It is not a reliability related issue.
Response:			
Southern Company - Transmission		<input checked="" type="checkbox"/>	No additional comment.
City Water, Light & Power-Springfield, IL		<input checked="" type="checkbox"/>	

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #1			
Commenter	Yes	No	Comment
Consumers Energy		<input checked="" type="checkbox"/>	
ERCOT		<input checked="" type="checkbox"/>	
TVA		<input checked="" type="checkbox"/>	
AEP		<input checked="" type="checkbox"/>	
Duke Energy		<input checked="" type="checkbox"/>	
Florida Municipal Power Agency		<input checked="" type="checkbox"/>	
ISO/RTO Council		<input checked="" type="checkbox"/>	
SERC GS		<input checked="" type="checkbox"/>	
Xcel Energy Services		<input checked="" type="checkbox"/>	
Ameren		<input checked="" type="checkbox"/>	
FirstEnergy Corp.		<input checked="" type="checkbox"/>	
Kansas City Power & Light		<input checked="" type="checkbox"/>	
Pepco Holdings, Inc		<input checked="" type="checkbox"/>	

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

2. FERC directed NERC to give consideration to the following suggestion relative to the requirement to develop facility ratings consistent with industry standards developed through an open, transparent and validated process:

- LPPC asks the Commission to require only that facility ratings be consistent with good utility practice. According to LPPC, to the extent facility rating methodologies need to be more prescriptive than good utility practice, the details must be spelled out in the ERO Reliability Standards themselves, not by reference to other unspecified industry methodologies. LPPC believes that it would be poor policy for the Commission to endorse these methodologies since it would be impossible to police the processes by which such organizations develop their methodologies.

The drafting team supports the FERC position that rating standards and guidelines that have been developed consistent with one or more industry Equipment Rating standards or guidelines will support the standard’s purpose of ensuring that facility ratings are based on technically sound principles.

The drafting team did not make a change to the standard in support of these comments.

Do you believe the drafting team should make additional changes to the standard in support of LPPC’s comments?

Summary Consideration:

Question #2			
Commenter	Yes	No	Comment
ATC	<input checked="" type="checkbox"/>		<p>Unlike many IEEE publications, National Standard writing agencies like ANSI require periodic review and ratification or the agency automatically deems the standard obsolete. IEEE papers are peer reviewed when published, but, because not all IEEE publications are standards, there is not always a mechanism to reaffirm them. Therefore, many IEEE publications become obsolete after some time.</p> <p>Regardless of the periodic reaffirmation; these committees are notoriously slow to adopt new information through their standards writing process. Research is always ahead of industry publications. Therefore, safety and reliability is best served if NERC permits utilities to utilize newly acquired knowledge.</p> <p>Examples: 1) ATC has discovered papers that describe the proximity effect of closely spaced conductors that increase resistance and reduce capacity. Much of this information has not been peer reviewed or published by industry organization such as IEEE. Yet, reliability is better served to keep records supporting their criteria but should be permitted to utilize this information that is supported by credible test data. 2) Another example is where ratings are greater than what outdated IEEE publications</p>

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #2			
Commenter	Yes	No	Comment
			<p>suggest include jumper connections to bushing. Recent test data prove the arbitrary assumptions of the IEEE committee are not realistic. Often industry guidelines are written to match current industry practice without any forensic research to support the position.</p> <p>Currently, ATC and other utilities are founding research to investigate the capability of conductor sleeves to withstand extended operation at high temperature. Early results show that the ANS 119.4 standard does not adequately test or qualify the capacity of these critical components.</p> <p>The two examples of publications referenced in footnote 1 are too restrictive and do not represent the information available. We are concerned that entities could be fined because the rating methodology does not have either IEEE or CIGRE label. ATC believes that the footnote should be deleted and the requirement changed to require that a commonly applied methodology be used.</p>
Response:			
Entergy Services	<input checked="" type="checkbox"/>		<p>The Standard should direct Generator Owners to rate their facilities in accordance with MOD-024 and MOD-025 in requirement 1. The balance of the requirements could then apply to transmission facilities.</p> <p>MOD-024 and MOD-025 are written specifically for generating units. Redirecting to these two reliability standards would lessen the effort required by the drafting team to come up with the necessary practices and transparency issues for both transmission and generating facilities. It would also lessen the effort to come up with the different compliance issues in section D of the standard.</p>
Response:			
NYSEG/RG&E	<input checked="" type="checkbox"/>		<p>Re-word or clarify that if facility owners ratings guidelines are based on one or more industry equipment rating standards (industry rating standards that were developed through an open, transparent, validated process), then it is not necessary for the facility owners rating guidelines to also go through an open, transparent, validated process in order to have a rating guideline that meets the intent of FAC-008.</p>
Response:			
Omaha Public Power District	<input checked="" type="checkbox"/>		<p>We agree with LPPC that there should only be a requirement that facility ratings be consistent with good utility practice. A Transmission Owner may have valid reasons for arguing that its rating methodology is superior to existing industry standards.</p>
Response:			

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #2			
Commenter	Yes	No	Comment
SCE&G ERO Working Group	<input checked="" type="checkbox"/>		SCE&G supports the comments submitted by LPCC, and believes the standard should be revised to apply only to transmission facilities. Generator capabilities are developed consistent with the requirements as specified in MOD-024 and MOD-025
Response:			
Duke Energy	<input checked="" type="checkbox"/>		The footnote to R2.1 should be revised to read as follows: The industry Equipment Rating standard or practice used must be either a nameplate rating; IEEE Standards or Guides; or a recognized, published industry-accepted practice such as CIGRE guideline, or other technically sound practice.
Response:			
Bandera Electric Cooperative, Inc.		<input checked="" type="checkbox"/>	The language of the proposed standard strikes a good balance between the need for consistent ratings based on a number of industry standards and the need for owners to determine specific ratings for their equipment based on specific conditions and circumstances.
Response:			
Dynergy Midwest ISO Madison Gas & Electric Co.		<input checked="" type="checkbox"/>	As long as ratings are based on an industry standard method and applied uniformly regardless of transmission user, the transmission owner should have the right to decide how aggressively they want to rate their system.
Response:			
ITC		<input checked="" type="checkbox"/>	Reliability Standards provide minimum requirements, not maximum requirements. If an entity chooses to rate facilities in a highly prescriptive (and presumably more reliable) manner, it should not be prevented from doing so simply because the details were not spelled out in a Standard.
Response:			
Oncor Electric Delivery		<input checked="" type="checkbox"/>	The standard as is provides sufficient requirements to ensure sound technical basis is used for ratings and does not need to be more prescriptive nor do the NERC standards need to enter the area of design/manufacturing/etc. details when industry already has an established process for treatment of these items.
Response:			
FirstEnergy Corp.		<input checked="" type="checkbox"/>	FirstEnergy agrees with the Commission's determination that "...methodology chosen by a facility owner be consistent with industry standards developed through an open process such as IEEE or CIGRE." (ref. Order 693 Par. 742). We concur with the flexibility allowing differing methodologies and that the standard should drive transparency to the methodology chosen by the asset owner. Furthermore, in an effort to clarify the wording addressing these examples of technically sound principles in the standard, FirstEnergy proposes the following revisions:

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Question #2			
Commenter	Yes	No	Comment
			<p>R1.4 Ratings obtained from equipment manufacturer specifications.</p> <p>R1.6 Equipment Rating standard(s) or practice(s)[Footnote 1] used in the development of this methodology.</p> <p>R2.1 The methodology used to establish the Ratings of the Equipment that comprises the Facility shall be in accordance with manufacturer specifications or with one or more Equipment Rating standard(s) or practice(s)[Footnote 1].</p> <p>R2.2.1 Equipment Rating standard(s) or practice(s)[Footnote 1] used in the development of this methodology.</p> <p>R2.2.2 Ratings obtained from equipment manufacturer specifications. [Footnote 1]: The Equipment Rating standard(s) or practice(s) used must be industry recognized, published, and periodically reviewed standard(s) or practice(s) such as, but not limited to, IEEE, ANSI, or CIGRE.</p>
Response:			
Southern Company - Transmission		<input checked="" type="checkbox"/>	No additional comment.
Consumers Energy		<input checked="" type="checkbox"/>	
ERCOT		<input checked="" type="checkbox"/>	
IESO		<input checked="" type="checkbox"/>	
NPCC		<input checked="" type="checkbox"/>	
TVA		<input checked="" type="checkbox"/>	
AEP		<input checked="" type="checkbox"/>	
AECI		<input checked="" type="checkbox"/>	
Baltimore Gas and Electric		<input checked="" type="checkbox"/>	
Florida Municipal Power Agency		<input checked="" type="checkbox"/>	
Hydro-Québec TransÉnergie		<input checked="" type="checkbox"/>	

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Question #2			
Commenter	Yes	No	Comment
ISO/RTO Council		<input checked="" type="checkbox"/>	
ISO-New England		<input checked="" type="checkbox"/>	
Manitoba Hydro		<input checked="" type="checkbox"/>	
Xcel Energy Services		<input checked="" type="checkbox"/>	
Ameren		<input checked="" type="checkbox"/>	
Kansas City Power & Light		<input checked="" type="checkbox"/>	
Pepco Holdings, Inc		<input checked="" type="checkbox"/>	

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3. FERC directed NERC to give consideration to the following suggestion relative to the requirement to develop facility ratings consistent with industry standards developed through an open, transparent and validated process:

- MRO requests that the Commission clarify whether its directive to modify FAC-008-1 to develop facility ratings consistent with industry standards developed through an open process such as IEEE or CIGRE would allow for legitimate regional differences such as climate, terrain or population density.

The differences — such as climate, terrain and wind — cited are addressed as inputs in equipment rating industry standards and guidelines. Therefore, regional differences, based upon owner supplied inputs such as climate, terrain, and/or wind don't warrant a Regional Variance. The drafting team did not make a change to the standard in support of these comments.

Do you believe the drafting team should make additional changes to the standard in regard to MRO's comments?

Summary Consideration:

Question #3			
Commenter	Yes	No	Comment
IESO	<input checked="" type="checkbox"/>		In the last round of comments, we suggested to: [Add the phrase "the framework of" after "consistent with" so that the sentence reads: The methodology used to establish the Equipment Rating for each component of the Facility shall be consistent with THE FRAMEWORK OF" one or more commonly accepted industry Equipment Rating standards or practices. This change is proposed since some transmission and generator owners may apply some variations to the detailed assumptions and parameters that are somewhat different from established standards and practices such as the IEEE approach, but the methodology is consistent with the general framework of these established standards and practices.] This is in line with MRO's suggestion that minor variations should be allowed for so long as the framework of the methodology is consistent with the industry's established standard methodologies.
Response:			
Entergy Services	<input checked="" type="checkbox"/>		IEEE and CIGRE give examples and clarity only to transmission facilities. Generation facilities that are rated in accordance with MOD-0024 and MOD-0025 will have open and transparent rating methodologies as the ratings will be empirically determined.
Response:			
ATC	<input checked="" type="checkbox"/>		This question is difficult to answer because the Standard Drafting Team did not make available the difference contained within IEEE and CIGRE methodologies. These methodologies should be provided with the next posting. ATC also questions whether industry standards IEEE and CIGRE allow for "legitimate" regional difference. Although CIGRE offers some limited techniques to address regional

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Question #3			
Commenter	Yes	No	Comment
			<p>assessments, IEEE does not provide for regional assessments. CIGRE regional assessment does not address "regional" relationship (such as climate, terrain or populations) in a special context. Section 3.2.1 of CIGRE-299 is prescriptive with regard to wind speed applicable to the entire world and one absorbtivity value for any and all conductor types. Section 5.6 of CIGRE-299 that addresses "Study-based ratings" is specific to a single line and not a region as requested by MRO. Therefore, even CIGRE which discusses the subject falls short of the test.</p> <p>ATC believes FAC-008 reference of IEEE and CIGRE is too restrictive and limiting with respect to the FERC Order. For these reasons ATC request that Requirement 2.1 be modified removed any reference of "industry Equipment Rating standards or guidelines". (See our concerns about Requirement 2.1 located in question 10.)</p> <p>The SDT should recognize that any industry standard developed by consensus could change at any time depending on the membership of the committee. In the case were modifications are made to an industry standard that is used by an entity how long does a company have to adopt the new standard?</p>
Response:			
Omaha Public Power District	<input checked="" type="checkbox"/>		There may be regional differences that are not addressed in equipment rating industry standards and guidelines. The Standard should make it clear that it allows for these types of regional differences without requiring a formal Regional Variance.
Response:			
SCE&G ERO Working Group	<input checked="" type="checkbox"/>		SCE&G takes the position, as in item #2, that generator "capabilities" are more meaningful and accurate than "ratings". Therefore, generator capabilities should reflect regional variances.
Response:			
Bandera Electric Cooperative, Inc.		<input checked="" type="checkbox"/>	In requiring owners to use general industry standards, sufficient flexibility should be included in applying these standards such that a Regional Variance is not required or necessary to comply with this standard in terms of climate, terrain, and/or wind.
Response:			
TVA		<input checked="" type="checkbox"/>	We believe that the equipment rating methodologies should consider local design parameters, such as ambient temperature, wind speed, elevation, latitude, etc. as inputs to the rating methodologies. These parameters should be local to the transmission owner and are not necessarily regional in nature.
Response:			

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Midwest ISO

Dynergy Madison Gas & Electric Co.	<input checked="" type="checkbox"/>	To the extent that climate, terrain and wind are already inputs to the ratings standards, there is no need for additional changes.
Response:		
ITC	<input checked="" type="checkbox"/>	Inputs and assumptions for valid methodologies provide sufficient variation at the entity level (performing the facility ratings) that a Regional variation is not warranted.
Response:		
Oncor Electric Delivery	<input checked="" type="checkbox"/>	Concur with the drafting team's comment on this item.
Response:		
Ameren	<input checked="" type="checkbox"/>	We believe that the equipment rating methodologies should consider local design parameters, such as ambient temperature, wind speed, elevation, latitude, etc. as inputs to the rating methodologies. These parameters should be local to the transmission owner and are not necessarily regional in nature. There may be certain commonalities of inputs to ratings methodologies that may be reflective of transmission or generator owners in certain areas, but we do view these as regional issues or differences. Utilities have the capability to establish generator facility ratings. The ratings are to be verified also in accordance with the MOD-024 & -025 Standards.
Response:		
Southern Company - Transmission	<input checked="" type="checkbox"/>	No additional comment.
City Water, Light & Power-Springfield, IL	<input checked="" type="checkbox"/>	
Consumers Energy	<input checked="" type="checkbox"/>	
ERCOT	<input checked="" type="checkbox"/>	
NPCC	<input checked="" type="checkbox"/>	
AEP	<input checked="" type="checkbox"/>	
Duke Energy	<input checked="" type="checkbox"/>	
AECI	<input checked="" type="checkbox"/>	
Baltimore Gas and Electric	<input checked="" type="checkbox"/>	
Florida Municipal Power Agency	<input checked="" type="checkbox"/>	
Hydro-Québec	<input checked="" type="checkbox"/>	

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TransÉnergie			
ISO/RTO Council		<input checked="" type="checkbox"/>	
ISO-New England		<input checked="" type="checkbox"/>	
Manitoba Hydro		<input checked="" type="checkbox"/>	
Xcel Energy Services		<input checked="" type="checkbox"/>	
FirstEnergy Corp.		<input checked="" type="checkbox"/>	
Kansas City Power & Light		<input checked="" type="checkbox"/>	
Pepco Holdings, Inc		<input checked="" type="checkbox"/>	

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4. FERC Order 693 included a directive that FAC-008 be modified to include the following:

(3) for each facility, identify the limiting component and, for critical facilities, the resulting increase in rating if that component is no longer limiting.

This scope of this directive was qualified in paragraph 756 and paragraph 758 of Order 693.

Does Requirement 7 in the proposed standard substantially address this FERC directive?

Summary Consideration:

Question #4			
Commenter	Yes	No	Comment
FirstEnergy Corp.		<input checked="" type="checkbox"/>	<p>FirstEnergy agrees with the SDT's intent in R7 to limit the need to provide information related to the "next limiting component" to be only required upon request, however, the wording in R7 is awkward and should be revised. FirstEnergy proposes the following revisions to the wording in R7:</p> <p>R7. Upon request from an associated Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Coordinator, the Transmission Owner shall provide the following information for a thermally limited Facility within 30 calendar days [Violation Risk Factor: Lower][Time Horizon: Operations Planning]:</p> <ul style="list-style-type: none"> - Identification of the most Limiting Element that establishes a Facility Rating and its seasonal Normal and Emergency Rating(s). - Identification of the next most Limiting Element of a Facility Rating and its seasonal Normal and Emergency Rating(s). <p>This change to R7 per the above requires a change to M8 as follows: M8. The Transmission Owner shall have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it provided requested information (identification of the most and next most Limiting Element that establishes a Facility Rating and its seasonal Normal and Emergency Rating(s)) to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with Requirement 7.</p>
Response:			
NPCC		<input checked="" type="checkbox"/>	<p>As stated R7, seems to go beyond the FERC directive. Only upon the request of the RC, TOP, PA (etc) the TO should there be a requirement to provide through a documented process the potential increase in rating.</p>
Response:			

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Question #4			
Commenter	Yes	No	Comment
ISO-New England		<input checked="" type="checkbox"/>	As stated, R7 seems to go beyond the FERC directive. Only upon the request of the RC, TOP, PA (etc) should the TO be required to provide such information.
Response:			
Hydro-Québec TransÉnergie		<input checked="" type="checkbox"/>	<p>As stated R7, seems to go beyond the FERC directive. Only upon the request of the RC, TOP, PA (etc) should there be a requirement for the TO to provide, through a documented process, the potential increase in rating.</p> <p>Also, we don't understand the necessity of subsets requirements in R7 (R7.1, R7.2, R7.3) for reasons provided in Q5 and Q6 and because elements in R7.3 are System limits that can be impacted by Facility ratings; they are not a classification of Facility ratings.</p> <p>While doing studies where limits are encountered, RC, TOP, TP or PC, would usually questioned the facility owner about the most cost efficient ways to increased those limit. At those occasion, R7 would be relevant.</p>
Response:			
NYSEG/RG&E		<input checked="" type="checkbox"/>	Identification and visibilitiy of next-most limiting component ratings have no application in real-time for a transmission system operator. It will however, provide stimulus in an economic planning process to encourage commercial use of the power system. This requirement is overly burdensome and unnecessary in regions and areas with an integrated and well-developed economic planning process.
Response:			
Madison Gas & Electric Co.		<input checked="" type="checkbox"/>	<p>Technically, one could argue that requirement 7 meets the wording in order 693. However, I think it would be much simpler and accomplish FERC's objective to simply list the rating of the next most limiting piece of equipment.</p> <p>Many, if not most, critical facilities are IROL situations that have a limit based on post-contingent flow on some other facility or set of facilities. These really are not facility limits per se. Thus, there often is not a next most limiting facility. It is not clear how the FERC directive or R7 would be handled in these cases.</p> <p>In the case where you describe a facility as a Generator (as described in Order 693 para. 756) the generator may be the most limiting part of the "chains weakest link", (ibid)". You would not be able to have a second link to rate, the SDT should have an exeption within the new standard for this.</p>
Response:			

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Question #4			
Commenter	Yes	No	Comment
Dynegy Midwest ISO		<input checked="" type="checkbox"/>	<p>Technically, one could argue that requirement 7 meets the wording in order 693. However, I think it would be much simpler and accomplish FERC's objective to simply list the rating of the next most limiting piece of equipment.</p> <p>Many, if not most, critical facilities are IROL situations that have a limit based on post-contingent flow on some other facility or set of facilities. These really are not facility limits per se. Thus, there often is not a next most limiting facility. It is not clear how the FERC directive or R7 would be handled in these cases.</p>
Response:			
ISO/RTO Council		<input checked="" type="checkbox"/>	<p>We agree with adding R7 to address FERC's directive. However, requirement 7 requires additional work to provide clarification on what actually is the intent. The whole requirement needs to be reworded to be simpler. Requirement 7 is an eight-line sentence.</p> <p>More specific concerns include: Sub-requirements R7.1 and R7.3 do not appear to be relevant to addressing the directive, which says: [The Commission directs the ERO to consider International Transmission's comments regarding requiring information about the increase in facility rating based on the next limiting element only for lines where the conductor itself is not the limiting element...].</p> <p>For R7.1, there might well be cases where the conductor does not limit the line rating but the restricting component is not thermally limited either (for example: wave trap, protection relay current transformer, etc.). And we do not see the need to tie this requirement to the four conditions in R7.3. If these conditions are to remain, then why do they not include SOL?</p>
Response:			

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Question #4			
Commenter	Yes	No	Comment
ITC		<input checked="" type="checkbox"/>	<p>Although the proposed wording does meet the suggestions in Order 693, the proposed wording is cumbersome and overly prescriptive. The intent of FERC's directive (and, indeed, ITC objections) can be satisfied by simply requiring "for each facility, identify the limiting component and, for critical facilities, the next most limiting component."</p> <p>To require, as FERC suggested, an identification of "the resulting increase" appears based on the assumption that if one were to eliminate the limiting facility, the new rating would be equal to the next most limiting facility. One must understand, though, that the method by which one relieves the limiting condition may, in fact, relieve many additional limiting facilities. Since the planning process may involve several options of eliminating a limiting facility, the resulting increase in facility rating may reflect new thermal limits, new voltage limits, or even new stability limits. The resulting increase is not simply the next "weakest link" in the chain. To require one to report the resulting increase in rating presumes that sufficiently detailed planning has already occurred for every facility in the system to know how the rating would be raised if it were required to be. I believe FERC only wanted to know "the next limiting element." If some users of the BES believe that "the next limiting element " provides the resultant rating of a facility if the limiting element is upgraded, so be it; but by only providing "the next limiting element" we can prevent a lot of unnecessary planning proposals for hypothetical upgrades.</p> <p>Suggested wording for a revised Requirement 7 might be as follows: R7. The Transmission Owner, upon request from an associated Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Coordinator, shall provide the following information for a thermally limited Facility within 30 calendar days [Violation Risk Factor: Lower][Time Horizon: Operations Planning]:</p> <ul style="list-style-type: none"> - Identification of the most Limiting Element that comprises a Facility Rating and its seasonal Normal and Emergency Rating(s). - - Identification of the next most Limiting Element of a Facility Rating and its seasonal Normal and Emergency Rating(s).
Response:			
ATC		<input checked="" type="checkbox"/>	<p>Requirement 7 goes greatly beyond FERC's request therefore it should be modified. In Order 693 FERC determined that for each facility entities are to identify the limiting component and for those facilities that are critical what is the second most limiting component. Critical facilities are those that (1) are part of an IROL, (2) a limitation of TTC, (3) an impediment to generation deliverability or (4) an impediment to service to</p>

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Question #4			
Commenter	Yes	No	Comment
			<p>major cities or load pockets.</p> <p>FERC did not require that this information be shared only that the ratings be identified. Order 693 P. 757: "When the transmission operators know which component within the transmission element is limiting they have more information to inform their decisions about how to provide for the Reliability Operation of the Bulk-Power System. Our proposed modification does not require any entity to invest in equipment to increase of any rating; its simply requires the next limiting component of each facility to be identified in order to understand what components are causing the limits that are to be used in reliability mitigation assessments."</p> <p>Suggested replacement for R7, 7.1, 7.2 and 7.3: R7: The Transmission Owner shall identify and document the first and second most limiting components for all transmission line facilities.</p> <p>R7.1 The Transmission Owner shall determine the following for those transmissionline facilities in which the most limiting component is not the conductor rating for that transmission line facility.</p> <p>R7.1.1: The Transmission Owner shall determine and document the increase in ratings if the most limiting component is no longer the most limiting component.</p>
Response:			
Entergy Services		<input checked="" type="checkbox"/>	<p>The changes in Requirement 7 are not reflected by changes in the Compliance section. The Generator owner is still required to show evidence for Measures 1-7. Reference section D.1.3 Data Retention, the first paragraph.</p> <p>The Violation Severity Levels do not differentiate between a generator and transmission facility in section D.2. A Generator Owner will still have to satisfy requirement 7 because he is not specifically excluded.</p>
Response:			
IESO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>We agree with adding R7 to address FERC's directive. However, Sub-requirements R7.1 and R7.3 do not appear to be relevant to to addressing the directive, which says: [The Commission directs the ERO to consider International Transmission's comments regarding requiring information about the increase in facility rating based on the next limiting element only for lines where the conductor itself is not the limiting element...].</p>

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Question #4			
Commenter	Yes	No	Comment
			For R7.1, there might well be cases where the conductor does not limit the line rating but the restricting component is not thermally limited either (for example: wave trap, protection relay current transformer, etc.). And we do not see the need to tie this requirement to the four conditions in R7.3. If these conditions are to remain, then why do they not include SOL?
Response:			
ERCOT	<input checked="" type="checkbox"/>		It is important to differentiate between this type of "rating" (i.e., a "rating" that is hypothetical to the condition that the limiting component is no longer limiting), and the applicable rating that must be used in the development of operating limits. Further, in all likelihood, once a limiting component is somehow modified or replaced such that it is no longer limiting, there will be some other component that becomes limiting. Therefore, this should be handled separately, as suggested by the revisions the drafting team.
Response:			
Baltimore Gas and Electric	<input checked="" type="checkbox"/>		While R7 is clear by itself, the criterion R7.2 appears rather ambiguous. See comments on question 5.
Response:			
Manitoba Hydro	<input checked="" type="checkbox"/>		Conceivably, every facility in the power system could be a limit to generation deliverability or load service. Requirement R7.3 could impose a considerable burden on the facility owner. The R7 requirement should restrict the identification of the next limiting element to the elements within a facility. Therefore, R7.3 should be deleted as it is not appropriate to introduce system limits (such as the IROL, TTC etc.) into the methodology for rating a facility. The question of "what is the next limiter of TTC, generation outlet or load serving" is more appropriately answered by a request for transmission service and/or system assessment studies, and not a Facility Rating Standard. Refurbishing a particular station or line end element to a higher rating will not necessarily raise the Operating Limits or Total Transfer Capabilities to the level of the next most limiting element associated with the refurbished facility, but probably shift the new key limiting factor to another station or area of the network altogether. Instead of asking for identification of the next limiting element (within a facility), this standard should require that facility owners upkeep a data base which provides the ratings of all the elements that comprise a facility. The MRO has or had such a capacity data listing.
Response:			

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Question #4			
Commenter	Yes	No	Comment
Ameren	<input checked="" type="checkbox"/>		<p>We believe that the proposed requirements of R7 would satisfy the FERC concern and as worded would not be overwhelming to the equipment owners. We do not see a need to identify the most limiting component for each facility. We would agree that, upon request, the most limiting equipment associated with the rating can be provided for a limited number of specific facilities, as long as the requested list of specific facilities is reasonable. The second limit, assuming an upgrade would be constructed to eliminate the first limit, can also be provided within the proposed 30 day time frame.</p> <p>We are still not convinced that information in R7 is needed. Having the most limiting and the second most limiting rating would not tell you that how many elements (breakers, disconnect switches, CTS, etc) are involved in the "most limiting" rating and similarly how many will be involved in the next limit. So just knowing a second limit (another number) does not provide much, if any, information from reliability perspective. We are not sure how the knowledge of the next limit would be used in operation, since one is not supposed to violate the first limit. Does this requirement R7 really belong in the reliability standard?</p> <p>Further, if R7 is kept for whatever reason, it should not be made burdensome on the TO to provide it. Therefore, R7 should be modified to make sure that the request for the next limit is a valid request; that is, it is an identified limitation based on generation connection, transfer capability or such other studies and not just a request to provide the next limits for all TOs facilities.</p>
Response:			
Omaha Public Power District	<input checked="" type="checkbox"/>		However, see comments under Item 10 below for a suggested change to the wording of R7.3.
Response:			
Southern Company - Transmission	<input checked="" type="checkbox"/>		No additional comment.
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
Consumers Energy	<input checked="" type="checkbox"/>		
TVA	<input checked="" type="checkbox"/>		
AEP	<input checked="" type="checkbox"/>		
Duke Energy	<input checked="" type="checkbox"/>		
AECI	<input checked="" type="checkbox"/>		

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Question #4			
Commenter	Yes	No	Comment
Florida Municipal Power Agency	<input checked="" type="checkbox"/>		
Oncor Electric Delivery	<input checked="" type="checkbox"/>		
Xcel Energy Services	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Pepco Holdings, Inc	<input checked="" type="checkbox"/>		

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5. FERC directed NERC to give consideration to the following suggestion relative to identifying the resulting increase in rating if the most limiting component of a facility is no longer limiting:

- International Transmission states that, if the Commission were to require defining the increase in facility rating based on the next limiting element, it should restrict such application to transmission elements where the conductor itself is not the limiting element. International Transmission explains that in cases where the line must be completely rebuilt, it would not be feasible to estimate the increase in facility rating, since the new line could be specified to carry virtually any amount of power.

The drafting team modified the standard (R7.2) in support of these comments.

Do you support the modification made to address the concerns of ITC?

Summary Consideration:

Question #5			
Commenter	Yes	No	Comment
Consumers Energy		<input checked="" type="checkbox"/>	From an operating perspective, knowledge of the next most limiting item is useful input into making operating decisions. Modes of failure and failure consequence vary with equipment type. When managing risk in the operations arena, knowing this information is vital in making decisions. International Transmission's comments appear to stem from a narrowly focused planning perspective.
Response:			
TVA		<input checked="" type="checkbox"/>	We suggest that R7.2 be reworded as follows: "It is not limited by the transmission line conductors". Conductors in the line terminal or bus generally can be upgraded, and the upgrade may increase the facility rating, if the conductors are rated less than the transmission line conductors.
Response:			
Baltimore Gas and Electric		<input checked="" type="checkbox"/>	Eliminating conductor limitation, when it exists as the most limiting component, does not eliminate the next limitation that may exist. This is especially true for lines that are rated in segments. The expected increase in capacity will still be limited by the other limitation, whatever it may be
Response:			
Hydro-Québec TransÉnergie		<input checked="" type="checkbox"/>	We don't think that R7.2 is necessary since the limiting element in a line could be a relatively short section of the circuit built with a smaller conductor. That section could be rewired to match the rest of the line. Also, part or all of a line might have been built with a specific conductor heat rise at an earlier time; that heat rise can sometime be raise, allowing for a higher capacity for the line.

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Question #5			
Commenter	Yes	No	Comment
Response:			
ISO/RTO Council		<input checked="" type="checkbox"/>	Requirement 7 requires additional work to provide clarification on what actually is the intent. The whole requirement needs to be reworded to be more simple. Requirement 7 is an eight-line sentence.
Response:			
Madison Gas & Electric Co. Dynergy		<input checked="" type="checkbox"/>	Requirement 7 is so poorly worded it is difficult to decypher what actually is the intent. The whole requirement needs to be reworded to be more simple. We would suggest the following wording: R7. Upon request from an Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Coordinator, the Transmission Owner shall provide the following information for a thermally limited Facility within 30 calendar days [Violation Risk Factor: Lower][Time Horizon: Operations Planning]: <ul style="list-style-type: none"> - Identification of the most Limiting Element that comprises a Facility Rating and its seasonal Normal and Emergency Rating(s). - dentification of the next most Limiting Element of a Facility Rating and its seasonal Normal and Emergency Rating(s).
Response:			
Ameren		<input checked="" type="checkbox"/>	We suggest that R7.2 should be removed because the rebuilt line could still be limited by the other series elements and disagree with the statement that "the new line could be specified to carry virtually any amount of power." If R7.2 is kept, it at least should be reworded as follows: "It is not limited by the transmission line conductors". Conductors in the line terminal or bus generally can be upgraded, and the upgrade may increase the facility rating, if these conductors were rated less than the transmission line conductors.
Response:			
FirstEnergy Corp.		<input checked="" type="checkbox"/>	R7 as presently written by the SDT is difficult to understand. See FirstEnergy's proposed revisions to R7 in question 4 above.
Response: See the response to the comments on question 4.			
Midwest ISO		<input checked="" type="checkbox"/>	Requirement 7 is so poorly worded it is difficult to decypher what actually is the intent. The whole requirement needs to be reworded to be more simple. We would suggest the following wording:

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Question #5			
Commenter	Yes	No	Comment
			<p>R7. Upon request from an associated Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Coordinator, the Transmission Owner shall provide the following information for a thermally limited Facility within 30 calendar days [Violation Risk Factor: Lower][Time Horizon: Operations Planning]:</p> <ul style="list-style-type: none"> - Identification of the most Limiting Element that comprises a Facility Rating and its seasonal Normal and Emergency Rating(s). - Identification of the next most Limiting Element of a Facility Rating and its seasonal Normal and Emergency Rating(s).
Response:			
NYSEG/RG&E		<input checked="" type="checkbox"/>	If there are more than one limiting elements that are not conductor rating limitations, a request for only the next-most limiting element as described in R.7 and R7.2 does not provide for full visibility into all of the non-conductor facility limitations.
Response:			
ITC		<input checked="" type="checkbox"/>	See above.
Response: Please see response to above question.			
AEP	<input checked="" type="checkbox"/>		<p>Providing this additional information can be problematical and one can only assume the logic behind FERC requiring this information in Order 693. Providing this type of information to imply the practicality of increasing the facility rating could be misleading.</p> <p>For example, ITC's suggestion (to exclude 'second limit' if the first limit is the conductor) is valid except in the cases where the conductor is the limit but, in reality is only a limited number of spans -- such as a station entrance. Changing out a station entrance, or a single span (for example) to eliminate a conductor limitation within a facility would typically be considered minor work.</p>
Response:			
Manitoba Hydro	<input checked="" type="checkbox"/>		It is not practical to predict the increase in facility rating when the conductor is the limiting element unless one knows what would be done to increase the facility rating (ie. resag the line, reconductor the line with high temperature conductor, build a new line etc.).
Response:			
ATC	<input checked="" type="checkbox"/>		Order 693 P. 757 "Our purposed modification does not require any entity to invest in equipment to increase of any rating; it simply requires the next limiting component of each facility to be identified in order to understand what components are causing the limits that are to be used in reliability mitigation assessments."

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Question #5			
Commenter	Yes	No	Comment
			ATC's suggested modifications address ITC's concerns. See Question 4
Response:			
Southern Company - Transmission	<input checked="" type="checkbox"/>		No additional comment.
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
City Water, Light & Power-Springfield, IL	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		
NPCC	<input checked="" type="checkbox"/>		
Reliant Energy	<input checked="" type="checkbox"/>		
Duke Energy	<input checked="" type="checkbox"/>		
AECI	<input checked="" type="checkbox"/>		
Florida Municipal Power Agency	<input checked="" type="checkbox"/>		
ISO-New England	<input checked="" type="checkbox"/>		
Oncor Electric Delivery	<input checked="" type="checkbox"/>		
Xcel Energy Services	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Omaha Public Power District	<input checked="" type="checkbox"/>		
Pepco Holdings, Inc	<input checked="" type="checkbox"/>		

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

6. FERC directed NERC to give consideration to the following suggestion relative to identifying the resulting increase in rating if the most limiting component of a facility is no longer limiting:
- MISO questions how a generator operator or generation owner would identify the increase in rating based on the next most limiting component(s) associated with generator output. FirstEnergy believes that this modification should recognize that generators may need to rely on transmission owners to point out facilities that are more limiting than the generator facilities.

The standard was modified to exclude the generator owner from having to identify the increase in rating based on the next most limiting component of a generating unit.

Do you support the modification made to address the concerns of MISO and FirstEnergy?

Summary Consideration:

Question #6			
Commenter	Yes	No	Comment
Consumers Energy		<input checked="" type="checkbox"/>	The directive is for just the generator owner’s equipment, not the integrated transmission limit. First Energy expanded the question from generation owned equipment, to an integrated transmission limit.
Response:			
Baltimore Gas and Electric		<input checked="" type="checkbox"/>	Generator Owners should be held to the same standard as other entities
Response:			
Hydro-Québec TransÉnergie		<input checked="" type="checkbox"/>	Some limiting element of a generator, the exciter ceiling for exemple, could be the limiting element. Increasing the exciter ceiling might be possible in some circomstances and could permit higher System Limit.
Response:			
NPCC		<input checked="" type="checkbox"/>	
ISO-New England		<input checked="" type="checkbox"/>	
Entergy Services	<input checked="" type="checkbox"/>		<p>The ratings of transmission facilities using engineering judgement and processes is very important to reliable ratings of transmission facilities because the power flow through the transmission lines and substations cannot be directly controlled.</p> <p>The MW and MVAR load on generating units can be precisely controlled so a unit may approaches a limiting condtion with a very reasonable expectation that the limit will not be exceeded. This expectation on not exceeding limits and the determination of generating unit capabilities as defined by the reliability standards MOD-024 and MOD-025 should be sufficient to exclude Generator Owners from most of the other</p>

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #6			
Commenter	Yes	No	Comment
			<p>requirements in FAC-008.</p> <p>The standard has obviously been written for rating of transmission facilities with generation included since they are in fact facilities and therefore must be rated. Fitting generating facilities into the standard requires Generator Owners to perform activities and engineering studies that are not really relevant to the ratings of generating facilities and therefore are unnecessarily burdensome.</p>
Response:			
Manitoba Hydro	<input checked="" type="checkbox"/>		<p>Generator facility rating limit determinations should be restricted to only all of the equipment necessary to transfer generated power into whatever transmission network exists on the high voltage side of the generator unit step-up transformers. Any and all limitations to permitting maximum generated output to be fully utilized in the transmission network is the direct responsibility of the Transmission Owners. Transmission facility restrictions should not be applied as generator facility restrictions.</p>
Response:			
Ameren	<input checked="" type="checkbox"/>		<p>As stated in response to #4, we do not perceive a reliability need for transmission owner to identify the increase in rating based on the next most limiting component of a transmission facility either.</p>
Response:			
Pepco Holdings, Inc	<input checked="" type="checkbox"/>		<p>See response to Question 7</p>
Response:			
Southern Company - Transmission	<input checked="" type="checkbox"/>		<p>No additional comment.</p>
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
City Water, Light & Power-Springfield, IL	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		
Reliant Energy	<input checked="" type="checkbox"/>		
TVA	<input checked="" type="checkbox"/>		
AEP	<input checked="" type="checkbox"/>		
Duke Energy	<input checked="" type="checkbox"/>		

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Question #6			
Commenter	Yes	No	Comment
Dynegy	<input checked="" type="checkbox"/>		
AECI	<input checked="" type="checkbox"/>		
Florida Municipal Power Agency	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
ITC	<input checked="" type="checkbox"/>		
Madison Gas & Electric Co.	<input checked="" type="checkbox"/>		
Oncor Electric Delivery	<input checked="" type="checkbox"/>		
SERC GS	<input checked="" type="checkbox"/>		
Xcel Energy Services	<input checked="" type="checkbox"/>		
FirstEnergy Corp.	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Midwest ISO	<input checked="" type="checkbox"/>		
Omaha Public Power District	<input checked="" type="checkbox"/>		

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

7. FERC directed NERC to give consideration to the following suggestion relative to having the standard apply to the generator owner:
- Xcel states that this Reliability Standard should not apply to generator owners because capability testing, rather than using mathematical calculations, is the preferred method of determining generating unit capability. Capability testing clearly includes the capability of all the supporting components behind the generator that are required to produce a MW of capability. Xcel also states that this proposed Reliability Standard, if applied to generating units, would not improve system reliability and could result in conflicting and confusing unit capability ratings. Xcel notes that generating units already are required to be capability-tested on a periodic and seasonal basis to demonstrate unit gross and net capability in accordance with proposed standards MOD-024-1 and MOD-025-1

The standard was modified to separate the requirement for the Generator Owner to document its methodology for rating its generating facilities from the requirement for the Generator Owner (as may be applicable) and Transmission Owner to document their methodologies for rating other bulk electric system facilities. The standard was modified to clarify that testing may be used in conjunction with performance tracking and engineering analysis as a method of establishing a facility rating for a generating facility.

MOD-024 and MOD-025 require verification of the facility’s capability under specified conditions which don’t necessarily match the assumptions used in setting the facility rating. The drafting team did not modify the standard in support of Xcel’s suggestion that the standard should not apply to the Generator Owner.

Do you believe the drafting team should make additional changes to the standard in support of Xcel’s comments?

Summary Consideration:

Question #7			
Commenter	Yes	No	Comment
Bandera Electric Cooperative, Inc.		<input checked="" type="checkbox"/>	While BEC agrees with Xcel that capability testing should be the preferred method to determine generating unit capability, the proposed language of R1 appears to address all concerns.
Response:			
Ameren		<input checked="" type="checkbox"/>	Generator capability testing would be needed to determine the real and reactive generating capability for a given generator. However, there would still be ratings associated with step-up transformers, bus conductors, terminal equipment, etc. associated with a given generator that would need to be given consideration, and would be covered by this standard. Also, FAC standard is needed when a component may reduce the facility rating below or above the tested rating.
Response:			

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #7			
Commenter	Yes	No	Comment
Manitoba Hydro		<input checked="" type="checkbox"/>	<p>The re-organization of FAC-008-2 (specifically, separating the criteria for rating methodology of generating unit facilities from the criteria for rating methodology for all other facilities) raises the following questions:</p> <ul style="list-style-type: none"> - Requirement R1 (there is a typo in the standard - R1.1.1 should be R1) specifies the rating methodology required for generating unit facilities. It is not clear what type of rating methodology a Generator Owner would provide (to meet requirement R1) that is not covered by the generator capability-testing standards (MOD-024-1 and MOD-025-1). In fact, rating methodologies based on R1.2 and R1.3 would results in the ratings obtained based on the generator capability-testing standards. It would be helpful if the drafting team provided more specific information in this standard as to what rating methodology and data is expected for generating unit facilities. - Requirement R2 addresses the rating methodology for transmission facilities and generation facilities not addressed in R1. I can not see any criteria that would tell me whether a generating unit facility would be addressed by Requirement R1 or by Requirement R2. - With the exception of R1.2 and R1.3, R1 and R2 could be combined (the criteria in R1.4, R1.5 and R1.6 are also found in R2). Could R1.2 and R1.3 be deleted? These requirements are addressed in the generator capability-testing standards.
Response:			
Midwest ISO	<input checked="" type="checkbox"/>		<p>Requirement R1 of the existing Standard requires the Generation Owner to develop a methodology to rate the facilities (including the generator) that connect the generator to the grid. The proposed modification to separate the rating of the generator from the rating of the other facilities that connect the generator to the grid does not address Xcel's real concern (Standard should not apply to Generation Owners) and should not be made.</p> <p>The Standard should still apply to Generation Owners since they own bulk electric system facilities. However, Standards MOD-024-1 and MOD-025-1 already require Generation Owners to test the capability of its units under certain specified conditions. These Standards in effect determine the Generation Owner's methodology for rating its units. To include this same provision in Standard FAC 008 is duplicative, unnecessary and improper.</p>

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Question #7			
Commenter	Yes	No	Comment
			<p>Requirement R1 of the current Standard includes reasonable provisions for rating the facilities (including the generator) that connect the generator to the grid and it should not be modified. The proposed change does not address Xcel's real concern and it would create duplicative provisions to those in Standards MOD 024 and MOD 025.</p> <p>Additionally, requirement one appears to be missing some section. The requirements section starts with R1.1.1. It should start with R1.</p>
Response:			
Pepco Holdings, Inc	<input checked="" type="checkbox"/>		<p>Generator ratings are not established by calculation but by capability testing. While a new unit will depend upon the proposed rating of the unit by the manufacturer and builder, that is replaced by testing when the unit goes into operation. These data are already requested by MOD-024-1 and MOD-025-1. While these are -pending- under FERC Order 693, they are still voluntary and in use. For these reasons, FAC-008 should not include generator rating methods.</p>
Response:			
SCE&G ERO Working Group	<input checked="" type="checkbox"/>		<p>SCE&G agrees with the SERC PSS in that, if the conditions under which generator capabilities are determined for MOD-024 and MOD-025 are different from the assumptions used in developing facility ratings, then such "ratings" become meaningless. As the PSS states, "The same objective should not be required under multiple standards because it has the potential to create confusion." Furthermore, it exposes those who are required to comply with the standards to multiple liabilities and penalties.</p>
Response:			
City Water, Light & Power-Springfield, IL	<input checked="" type="checkbox"/>		<p>I strongly feel that generation facility ratings and transmission facility ratings should be addressed in separate standards. They are as different as night and day and they are applicable to different parties.</p>
Response:			
Reliant Energy	<input checked="" type="checkbox"/>		<p>Reliant supports Xcel's position that this standard should not apply to the generator owner(GO). Reliant supports having the standard apply to the generator operator (GOP). . The GOP would be the entity conducting or supervising any testing or unit operation required to comply with this standard. The GOP is most likely the entity responsible for maintenance of unit equipment so the GOP would be most familiar with equipment limits, ratings and capabilities. In addition, replacing GO with GOP has the following benefits:</p> <ol style="list-style-type: none"> 1. How a facility is operated has more impact on reliability than ownership of a facility. 2. Removing the GO from responsibility will more clearly define who is responsible for

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Question #7			
Commenter	Yes	No	Comment
			<p>standard compliance at jointly-owned facilities.</p> <p>3. For jointly-owned facilities, this change eliminates the need for each owner to make redundant submittals and streamlines administration for each Regional Entity.</p> <p>4. As the industry moves away from the regulated model, more non-traditional entities will become owners of facilities. These owners typically contract operation responsibilities to entities with operating experience. The operating entity will more fully understand the importance of reliability and would be in a better position to comply.</p>
Response:			
TVA	<input checked="" type="checkbox"/>		<p>The SERC PSS agrees with Xcel’s comments that generator capability testing under NERC Reliability Standards MOD-024-1 and MOD-025-1 address the generator issues of FAC-008-2. The same objective should not be required under multiple Standards and has the potential to create confusion. The PSS disagrees with the Standards Drafting Team’s comments that “MOD-024 and MOD-025 require verification of the facility’s capability under specified conditions which don’t necessarily match the assumptions used in setting the facility rating.” However, if this were to be true, the value of a rating is questionable. The need for individual ratings for internal generating plant components such as the generator step up transformer, bus conductors, terminal equipment, etc is not obvious since the generator capability is already determined separately and includes these components.</p>
Response:			
Dynegy	<input checked="" type="checkbox"/>		<p>Requirement R1 of the existing Standard requires the Generation Owner to develop a methodology to rate the facilities (including the generator) that connect the generator to the grid. The proposed modification to separate the rating of the generator from the rating of the other facilities that connect the generator to the grid does not address Xcel's real concern (Standard should not apply to Generation Owners) and should not be made.</p> <p>The Standard should still apply to Generation Owners since they own bulk electric system facilities. However, Standards MOD-024-1 and MOD-025-1 already require Generation Owners to test the capability of its units under certain specified conditions. These Standards in effect determine the Generation Owner's methodology for rating its units. To include this same provision in Standard FAC 008 is duplicative, unnecessary and improper.</p> <p>Requirement R1 of the current Standard includes reasonable provisions for rating the facilities (including the generator) that connect the generator to the grid and it should</p>

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Question #7			
Commenter	Yes	No	Comment
			<p>not be modified. The proposed change does not address Xcel's real concern and it would create duplicative provisions to those in Standards MOD 024 and MOD 025.</p> <p>Additionally, requirement one appears to be missing some section. The requirements section starts with R1.1.1. It should start with R1.</p>
Response:			
Entergy Services	<input checked="" type="checkbox"/>		<p>The drafting team should make additional changes to either exempt Generator Owners from the standard or to explicitly require Generator Owners to rate their facilities in accordance with reliability standards MOD-024 and MOD-025.</p> <p>The Compliance section does not differentiate between generating facilities and transmission facilities. This section should be rewritten with specific compliance sections for generating facilities and transmission facilities. This is a common practice in other reliability standards and a very good precedent to follow.</p>
Response:			
Madison Gas & Electric Co.	<input checked="" type="checkbox"/>		<p>Requirement R1 of the existing Standard requires the Generation Owner to develop a methodology to rate the facilities (including the generator) that connect the generator to the grid. The proposed modification to separate the rating of the generator from the rating of the other facilities that connect the generator to the grid does not address Xcel's real concern (Standard should not apply to Generation Owners) and should not be made.</p> <p>The Standard should still apply to Generation Owners since they own bulk electric system facilities. However, Standards MOD-024-1 and MOD-025-1 already require Generation Owners to test the capability of its units under certain specified conditions. These Standards in effect determine the Generation Owner's methodology for rating its units. To include this same provision in Standard FAC 008 is duplicative, unnecessary and improper.</p> <p>Requirement R1 of the current Standard includes reasonable provisions for rating the facilities (including the generator) that connect the generator to the grid and it should not be modified. The proposed change does not address Xcel's real concern and it would create duplicative provisions to those in Standards MOD 024 and MOD 025. Additionally, requirement one appears to be missing some section. The requirements section starts with R1.1.1. It should start with R1.</p>
Response:			

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Question #7			
Commenter	Yes	No	Comment
FirstEnergy Corp.	<input checked="" type="checkbox"/>		In Order 693, paragraphs 763 and 764, FERC agreed with comments from both Xcel and FirstEnergy. Essentially the Commission agreed that generator facility ratings identified through generator capability tests and NRC licensing should qualify for rating of the generator unit. FirstEnergy suggests revising R1 to more clearly state that these provisions (generation capability tests and NRC licensing requirements) are acceptable means of rating generator units. Additionally, we suggest that R2 be re-stated to remove any reference to the Generator Owner to focus on the Transmission Owner.
Response:			
Kansas City Power & Light	<input checked="" type="checkbox"/>		Xcel makes a very good point. This standard does not need to include the generator owner. MOD-024 and MOD-025 clearly require the Generator Owner to document the methodology used to establish the gross and net real and reactive capability of a generating facility.
Response:			
SERC GS	<input checked="" type="checkbox"/>		The SERC GS agrees with Xcel's comments that generator capability testing under NERC Reliability Standards MOD-024-1 and MOD-025-1 address the generator issues of FAC-008-2. The same objective should not be required under multiple Standards and has the potential to create confusion.
Response:			
Southern Company - Transmission	<input checked="" type="checkbox"/>		It is our opinion that generator facility ratings and/or capability must be determined on an electrical path basis- the ability of the facility to deliver power to the grid.
Response:			
Xcel Energy Services	<input checked="" type="checkbox"/>		<p>Xcel Energy supports the notion that each Generator Owner should report the net capability of their existing and planned generating facilities to the appropriate Transmission Planners and Operators. However, particularly in an environment where standards are mandatory and enforceable through application of potentially significant penalties, it is crucial that standards be clear and specific and that duplication of requirements across standards be avoided. Duplication of requirements across standards creates opportunities for confusion and inconsistency in application of requirements, imposing unnecessary risks on entities responsible for complying with the standards.</p> <p>Generally, Xcel Energy believes that the effort to consolidate FAC-008 and FAC-009 promotes the goals of minimizing duplication of requirements across multiple standards, but it does not go far enough. In particular, it fails to address the duplication and overlap between FAC-008 and FAC-002, MOD-024, and MOD-025. In Xcel Energy's view, the provisions of these standards relating to determination, submission, and</p>

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Question #7			
Commenter	Yes	No	Comment
			<p>evaluation of ratings and methodologies for new generating units is adequately covered by standards FAC 002, and for existing units can be adequately addressed as MOD 024, and MOD 025 work their way through the redrafting process. Eliminating duplication of requirements is essential for ensuring a clear process for dealing with generating unit ratings and minimizing the risk of inadvertent non-compliance by Generator Owners. For this reason, Xcel Energy does not support the provisions of FAC-008 relating to Generator Owners.</p> <p>Standard FAC - 002 clearly requires the Generation Owner, Transmission Owner, Distribution Provider, and Load Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities to coordinate and cooperate on assessments with the Transmission Planner and Planning Authority. The assessment requires, among other things identified in FAC 002, providing evidence that the assessment included steady state, short circuit, and dynamics studies as necessary to evaluate system performance. Requiring Generator Owners to create some other methodology as proposed by FAC 008 is redundant, and could be contradictory with the assessments required by FAC 002.</p> <p>In addition to its overarching concern about the piecemeal approach to generating unit ratings that currently exists, Xcel Energy is concerned that the proposed language does not accurately reflect the drafting team’s intent. The language as written appears to mandate a methodology that considers all of the listed factors. However, all of the listed factors may not be applicable in the context of a particular unit. For example, for existing units the preferred, and most reliable, method of establishing facility ratings is through a verification test. For an existing unit, it is not clear how a ratings methodology could be developed that addresses all of the listed factors. It is our understanding that the drafting team intended to allow the Generator Owner to select applicable requirements from the listed factors. If so, this language should be clarified to more accurately reflect their intent.</p> <p>Further, Xcel Energy is concerned with the exclusion threshold of 300 MVA for units not connected to the BES. However, we feel this issue should be addressed through the redrafting process of MOD-24 and MOD-25.</p>
Response:			
Consumers Energy		<input checked="" type="checkbox"/>	

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Question #7			
Commenter	Yes	No	Comment
ERCOT		<input checked="" type="checkbox"/>	
IESO		<input checked="" type="checkbox"/>	
NPCC		<input checked="" type="checkbox"/>	
AEP		<input checked="" type="checkbox"/>	
Duke Energy		<input checked="" type="checkbox"/>	
AECI		<input checked="" type="checkbox"/>	
Baltimore Gas and Electric		<input checked="" type="checkbox"/>	
Florida Municipal Power Agency		<input checked="" type="checkbox"/>	
Hydro-Québec TransÉnergie		<input checked="" type="checkbox"/>	
ISO-New England		<input checked="" type="checkbox"/>	
ITC		<input checked="" type="checkbox"/>	
Oncor Electric Delivery		<input checked="" type="checkbox"/>	

8. FERC directed NERC to give consideration to the following suggestion relative to dynamic ratings:

- Valley Group notes that, while the Commission's proposal would direct the ERO to respond to a part of Blackout Report Recommendation No. 27, it does not address the important second part of the Recommendation, namely dynamic ratings. Valley Group notes that dynamic ratings offer a very powerful tool both for maximizing the capabilities of transmission paths and for avoiding unnecessary transmission line loading relief.

Valley Group also notes that dynamic ratings, based either on ambient-adjusted ratings or ratings generated by real-time monitoring systems, are widely used in the PJM system, while broader real-time ratings are applied on certain lines in SPP and ERCOT and at several individual utilities. Valley Group states that controlling unnecessary operator interventions with dynamic ratings both increases the reliability of Bulk-Power System and improves its economy. Valley Group concludes that it would be highly desirable for the ERO to establish policies and procedures regarding dynamic ratings — as recommended by the Blackout Report and recommends that the Commission include such guidance in its Final Rule.

- The Commission believes that implementation of the modifications discussed earlier to Reliability Standard FAC-008-1 meets our goal of implementing Blackout Report Recommendation No. 27, which is to “develop enforceable standards for transmission line ratings.” **275** To achieve a clear and unambiguous Requirement to rate transmission lines, it is important to understand the underlying assumptions and the methodologies that will be used to develop those ratings. The Commission recognizes that dynamic line ratings are an innovative application, and directs the ERO to consider the comments from Valley Group in future revisions of this Reliability Standard.

The drafting team modified Requirement 2.2.3 by changing, 'ambient conditions' to 'ambient conditions (static or as they vary in real-time)' to recognize that facility owners using dynamic facility ratings may collect information on ambient conditions in real-time.

The drafting team believes that the requirements for a facility rating methodology in the proposed standard apply to dynamic ratings without needing additional language modifications.

Do you believe the drafting team should make additional changes to the standard in support of Valley Group's comments?

Summary Consideration: Most commenters indicated that the drafting team should not make additional changes to the standard in support of Valley Group's comments.

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Question #8			
Commenter	Yes	No	Comment
Kansas City Power & Light	<input checked="" type="checkbox"/>		The standard should be made clear that any entity with a facility equipped with dynamic facility rating capability is still obligated to develop the most limiting static rating for the facility in case the dynamic capability were to fail.
Response:			
City Water, Light & Power-Springfield, IL	<input checked="" type="checkbox"/>		
Consumers Energy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Bandera Electric Cooperative, Inc.		<input checked="" type="checkbox"/>	No, the proposed language encompasses the concern of Valley. No additional changes should be made at this time.
Response:			
ERCOT		<input checked="" type="checkbox"/>	There is no requirement, stated or implied, that the facility rating methodology applies only to static ratings. The methodology may describe a dynamic rating methodology commensurate with the various methods which the industry has identified as appropriate. While the weighting factors of differing ambient condition parameters may vary geographically, the methodologies generally must address which conditions are appropriate and how they will be used in the determination of the dynamic facility ratings.
Response:			
Hydro-Québec TransÉnergie		<input checked="" type="checkbox"/>	We recognize that dynamic line rating is most useful in real-time operation. For longer time planning horizon, dynamic line rating is not likely to be used and static value should be provided.
Response:			
ATC		<input checked="" type="checkbox"/>	Drafting team's modifications are acceptable and adequate.
Response:			
FirstEnergy Corp.		<input checked="" type="checkbox"/>	There needs to be clearer requirements for the Transmission Owner to provide real-time dynamic ratings to the Transmission Operator for use in its real-time EMS.
Response:			
Oncor Electric Delivery		<input checked="" type="checkbox"/>	Concur with drafting team's comment.
Response:			
Pepco Holdings, Inc		<input checked="" type="checkbox"/>	Nothing in the draft standard prohibits dynamic ratings.
Response:			

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Question #8			
Commenter	Yes	No	Comment
Southern Company - Transmission		<input checked="" type="checkbox"/>	It is our opinion that the Drafting Team has adequately covered this concern in the current draft of this standard.
Response:			
IESO		<input checked="" type="checkbox"/>	
NPCC		<input checked="" type="checkbox"/>	
TVA		<input checked="" type="checkbox"/>	
AEP		<input checked="" type="checkbox"/>	
Duke Energy		<input checked="" type="checkbox"/>	
Dynegy		<input checked="" type="checkbox"/>	
AECI		<input checked="" type="checkbox"/>	
Baltimore Gas and Electric		<input checked="" type="checkbox"/>	
Florida Municipal Power Agency		<input checked="" type="checkbox"/>	
ISO/RTO Council		<input checked="" type="checkbox"/>	
ISO-New England		<input checked="" type="checkbox"/>	
ITC		<input checked="" type="checkbox"/>	
Madison Gas & Electric Co.		<input checked="" type="checkbox"/>	
Manitoba Hydro		<input checked="" type="checkbox"/>	
Xcel Energy Services		<input checked="" type="checkbox"/>	
Ameren		<input checked="" type="checkbox"/>	
Midwest ISO		<input checked="" type="checkbox"/>	
Omaha Public Power District		<input checked="" type="checkbox"/>	

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

9. Several stakeholders indicated the applicability of the Generator Owner needed to be expanded beyond those with units directly connected to the BES.

Do you agree with the revised applicability for the Generator Owner?

- Generator Owner with units in a plant directly connected to the BES and units in a plant with an aggregate > 300 MVA (gross nameplate rating) not directly connected to the BES

Summary Consideration:

Question #9			
Commenter	Yes	No	Comment
NPCC Hydro-Québec TransÉnergie ISO-New England		<input checked="" type="checkbox"/>	The aggregate 300 MVA is too high and may be more appropriate for this threshold to be consistent with 20 MVA as stated in the NERC Statement of Compliance Registry Criteria
Response:			
Dynegy Madison Gas & Electric Co. Midwest ISO		<input checked="" type="checkbox"/>	Units in a Plant not directly connected to the BES through a step-up transformer are not required to register as a Generation Owner and are therefore not subject to the NERC Reliability Standards. Per the Energy Policy Act the Standards can only be enforced on Registered Entities--they cannot be enforced on facilities. If exceptions are needed, these stakeholders should work through their regions to influence the definition of BES.
Response:			
Baltimore Gas and Electric		<input checked="" type="checkbox"/>	There is a need to include smaller generators connected to the Distribution System because of their impact in assuring reliability
Response:			
ITC		<input checked="" type="checkbox"/>	The applicability for the Generator Owner must be coordinated with the Statement of Compliance Registry Criteria; there are specific instances where an owner of a generator not directly connected to the BES may be excluded from registration as a Generator Owner. Putting a statement of applicability in a Reliability Standard will not have any effect if the compliance registration criteria allows them to exclude themselves.
Response:			
Manitoba Hydro		<input checked="" type="checkbox"/>	For generating plants not directly connected to the BES: - This standard should apply to all generating units contained in the MRO power flow models. - This standard should apply to all units > 10 MVA (gross nameplate rating). The MRO generator testing document applies to all units > 10 MVA (gross nameplate rating).

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #9			
Commenter	Yes	No	Comment
			- What is the basis for ONLY applying this standard to generating units in plants with an aggregate > 300 MVA (gross nameplate rating)?
Response:			
Ameren		<input checked="" type="checkbox"/>	We believe that this standard should be applicable to all generators connected to the transmission system 100 kV and above.
Response:			
FirstEnergy Corp.		<input checked="" type="checkbox"/>	<p>FirstEnergy suggests that the SDT limit information required in R1 to BES-connected units only. Otherwise, the SDT should justify why 300MVA was chosen. Additionally, R1 should be revised to provide clear expectations from the Generator Owners. See FirstEnergy comments to question 7 above.</p> <p>If justification for choosing 300MVA is not available, we propose a change to the wording regarding the applicability to Generator Owners as follows: 4.2 Generator Owner with units in a plant directly connected to the BES.</p>
Response:			
Kansas City Power & Light		<input checked="" type="checkbox"/>	Facility capability for generators is required in MOD-024 and MOD-025 regardless of generator size or interconnection to the electrical network and is not necessary in this standard and all generator owner references should be considered for removal.
Response:			
Pepco Holdings, Inc		<input checked="" type="checkbox"/>	Where did this limit come from? - it appears to arbitrary an not in alignment with BES definitions.
Response:			
Southern Company - Transmission		<input checked="" type="checkbox"/>	We seek clarification on this issue. It seems impractical that a plant possessing (an aggregate) capability in excess of 300 MVA would not be connected to the Bullk Electric System. How did the Drafting Team come to a value of 300 MVA in determining the applicability of this standard?
Response:			
Xcel Energy Services		<input checked="" type="checkbox"/>	See our response to Question #7.
Response: Please see the response to the comments on question 7.			
TVA		<input checked="" type="checkbox"/>	See comment on Question 7 above.
Response: Please see the response to the comments on question 7.			
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		While BEC agrees there needs to be a threshold amount, could the SDT address why 300 MVA was chosen and not some other level?
Response:			

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #9			
Commenter	Yes	No	Comment
IESO	<input checked="" type="checkbox"/>		How was the number (300 MW) arrived at? Was this based on historical data review or some kind of technical analysis?
Response:			
Reliant Energy	<input checked="" type="checkbox"/>		Reliant agrees with the revised applicability but as stated above in 7 Reliant believes that the generator owner should be replaced with generator operator.
Response:			
City Water, Light & Power-Springfield, IL	<input checked="" type="checkbox"/>		
Consumers Energy	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
AEP	<input checked="" type="checkbox"/>		
Duke Energy	<input checked="" type="checkbox"/>		
AECI	<input checked="" type="checkbox"/>		
Florida Municipal Power Agency	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
Oncor Electric Delivery			
SERC GS	<input checked="" type="checkbox"/>		
ATC	<input checked="" type="checkbox"/>		

10. If you have any other comments on this standard that you have not already submitted above, please provide them here.

Summary Consideration:

Question #10	
Commenter	Comment
NPCC Hydro-Québec TransÉnergie ISO-New England	The requirement for generators not connected to the BES may create an additional Registration requirement
Response:	
Kansas City Power & Light	R7 is informational and does not have an impact on system reliability. Knowing the next limiting element for a transmission facility is useful in considering future changes or additions to the transmission network but is not useful in directly operating the BES. The most limiting element or stability limit becomes the operating limit regardless of the next limiting element. Consideration should be given to removing R7 from this standard as a reliability standard. This requirement would be more appropriate in the planning standards.
Response:	
IESO	<p>R1 is mis-labeled as R1.1.1, and the word "how" is missing after "identifies".</p> <p>In section B. R1, the standard is calling on Generation Owners to give consideration to each of the methods listed in R.1.1 to R.1.4, and to decide which are appropriate for their circumstances. Having given such consideration to each and selected the appropriate one(s), we would then only use the selected method(s). Is this interpretation correct?</p> <p>In section B. R2 the wording is different. The introduction seems to imply that we must use all methods in parallel to arrive at the result. Then R2.1 seems to provide for selecting one or more industry standards, which then seem to be listed in R2.2. Hopefully the wording of R2.1 is intended to permit selection of method, notwithstanding the introduction in R2. Is this correct? This needs to be clarified. Maybe R2.1 should just replace the present introduction wording.</p>
Response: The format errors and missing word have been corrected in the revised standard.	
Reliant Energy	If each owner of a joint owned facility must have a documented methodology for determining facility ratings then in the case of a facility with 7 or 8 owners this could easily and most likely end up with 7 or 8 methodolgies that are different. Which methodolgy should be followed? Also, it is not prudent or practical to determine the ratings multiple times. This could result in 7 or 8 slightly different ratings. Which rating is the Reliability Coordinator or Planning Authority to use?

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #10	
Commenter	Comment
	By having the generator operator determine the rating there will be only one methodology that is applied one time. What role should the owner play? Shouldn't the owner determine the facility ratings? The functional model states that owner establishes facility ratings, limits and operating requirements. This is correct, the owner will want to protect their investment from damage from exceeding the facility limits. The owner would spell this out in any contractual arrangement that the owner will have with the operator. The owner then is actively involved in setting facility ratings to protect their investment. In addition, the owner would be reviewing any reports that the operator would be submitting to the entity or entities specified in the standard. We don't believe that the functional model working group intended for the functional model to determine standard applicability. Standard applicability should be determined by what results in improved reliability. Reliant believes that this is accomplished by assigning the generator operator responsible for determining facility ratings.
Response:	
Dynegy	<p>While the NERC RSDP allows the draft standard to be posted with the SAR, this particular case has taken this liberty too far. There is no revised SAR posted with changes due to comments received from the single posting, only changes to the draft standard. It is difficult to see what, if any, changes were made to the draft standard based on comments.</p> <p>FERC has set deadlines in the past that have required shortening the process due to deadlines but NERC has never conducted the SAR and Standard drafting phases at the same time. Shortening the process is also not necessary because NERC was given a year by FERC to modify this standard. If additional time is needed NERC should request an extension from FERC rather than deviate from the procedure.</p> <p>The violation severity levels are arbitrary. What is the justification for choosing a high violation for failing to provide the facility rating methodology after 42 days but before 56 days? It is also not clear if these are calendar days or business days.</p>
<p>Response: The drafting team did not make any changes to the SAR based on stakeholder comments – the changes made to the standard based on stakeholder comments were posted. The consideration of comments document shows all comments submitted and the responses to those comments – the drafting team made conforming changes to the standard and posted a 'red line' version of the standard to make it easy for stakeholders to see the conforming changes.</p> <p>Note that there have been other situations where a SAR and standard were posted simultaneously and as you indicated the RSDP does allow the draft standard to be posted with the SAR so this practice is not a deviation from the procedure.</p>	
AECI	In the draft standard there seems to be some format issues associated with R1. If R1 is only for

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #10	
Commenter	Comment
	generators then there needs to be some requirements like R1 for TOs. A question came up as to what commissioning data and if this was valid since MOD-024 and 025 are being implemented.
Response:	
Entergy Services	<p>This standard and the SERC supplement related to this standard give no guidance to Generator Owners as to how to rate their facilities other than that the methodologies should be open and transparent. The new standard "allows" testing to be performed to accomplish that objective. The standard should be modified to give Generator Owners better guidance on how to rate their facilities. A good way to do that would be to refer Generator Owners to MOD-024 and MOD-025 in requirement 1 and then to proceed with the rest of the requirements to tell transmission facilities how to rate their facilities.</p> <p>Sections where Generator Owners are included because the Generator Owner may also own transmission facilities (the switchyard) should be clarified by explicitly stating "Generator Owners that also own transmission facilities".</p>
Response:	
ISO/RTO Council	<p>We have concerns that this standard is being posted simultaneously with the SAR. One reason that is given in the Reliability Standards Development Procedure for posting a draft standard with a SAR is that stakeholder consensus on the need and scope is likely. Given the number of questions that were referred to NERC by FERC, we believe that there should have been an expectation that a consensus on the scope would be unlikely and the team should not have begun the standards drafting process. A rush to update the standard absent an accepted scope created confusion and an unclear standard. If an approved scope was available, the standard may have been more specific and concise. More specifically, posting both at the same time has only muddied the waters because it is not clear if the SAR scope was modified or if changes to the draft standard were made as a result of the comments.</p> <p>The time frames in the VSLs appear to be arbitrary as well. For example, failure to make the facilities rating methodology available for inspection within 15 business days is arbitrary. What is the justification? The drafting team needs to recognize what this implies. If a request for the facilities rating methodology is made to a TO through email and the TO does not respond within 15 business days, he will be assigned a severe VSL. We do not believe that there is a reliability concern in this case to warrant a severe VSL. Extenuating circumstances may have precluded the TO from making the deadline and fully intends to meet the request.</p> <p>A specific comment: R1 is mis-labeled as R1.1.1, and the word "how" is missing after "identifies".</p>
Response:	

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #10	
Commenter	Comment
ITC	<p>I can discern no difference (other than the time allowed) between VSL 2.4.1 and 2.4.3. One says "Facility Ratings Methodology was not made available for inspection within 15 business days of receipt of a request" and the other says "Facility Ratings Methodology was not made available for inspection within 57 calendar days of receipt of a request." Does the standard contemplate there may only be 15 business days during a 57 calendar day period?</p> <p>Please change the parenthetical in M4 to read "(such as a copy of a dated electronic note, a written operator log, or other comparable evidence ...)" By only listing an electronic form of evidence, and then listing "or other comparable" evidence, it could be inferred that only electronic methods are comparable. I would like an example of a written piece of evidence to be included so that the measurement is clear both electronic and written evidence are acceptable.</p> <p>I renew my overall objection to the Violation Severity Levels chosen for this Standard. If the stated purpose of this Reliability Standard is to "ensure that Facility Ratings... are determined based on technically sound principles," then I would argue that the worst thing you could do to violate the Standard would be to develop Facility Ratings that are not consistent with the methodology. Therefore, Severity Level 2.3.2 seems it should warrant the most severe of levels. Similarly, not making the methodology available for inspection within 15 days hardly seems to be a severe violation of the purpose of the standard, and thus the second half of 2.4.1 warrants a much lower severity level (recommend: low).</p>
Response:	
Madison Gas & Electric Co.	<p>While the NERC RSDP allows the draft standard to be posted with the SAR, this particular case has taken this liberty too far. There is no revised SAR posted with changes due to comments received from the single posting, only changes to the draft standard. It is difficult to see what, if any, changes were made to the draft standard based on comments.</p> <p>FERC has set deadlines in the past that have required shortening the process due to deadlines but NERC has never conducted the SAR and Standard drafting phases at the same time. Shortening the process is also not necessary because NERC was given a year by FERC to modify this standard. If additional time is needed NERC should request an extension from FERC rather than deviate from the procedure.</p> <p>While there is a need for this standard, it is written too verbose (9 pages to say that TOs and GOs have a publicly available methodology, use their methodology, and respond to requests). The measures are complex and deficient in that they ask the GO and TO to prove the negative (retain evidence that they responded to all requests in x days). As an example for improvement, the drafting</p>

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #10	
Commenter	Comment
	<p>team could re-write requirement 7 in short simple sentences: A transmission owner shall respond to requests for the most limiting equipment in a facility within 30 days. The request must be from an RC, TOP, PC, or TP. The Facility Rating must meet the following conditions:</p> <p>Short simple sentences will result in a much clearer standard. The violation severity levels are arbitrary. What is the justification for choosing a high violation for failing to provide the facility rating methodology after 42 days but before 56 days. It is also not clear if these are calendar days or business days.</p> <p>Additionally, this standard should not be re-written without consideration of MOD-024 and MOD-025.</p> <p>Many of the requirements in the FAC-008-2 draft standard are similar or duplicate to requirements in MOD-024, MOD-025 and FAC-009. By including these standards in the scope, the drafting team could appropriately reflect that the responsibility to insure that ratings for its owned facilities are represented correctly and consistently for operating, planning and applicable tariff uses belongs to the TO and GO. This would allow the standards to reflect the basic flow of ratings information and avoid duplication.</p> <p>Finally, some distinction in the standard may be needed when a limit is based on electrical versus mechanical/environmental conditions.</p> <p>It is not clear what facilities should be included when deciding the generator rating. For example, should the GSU be included, the generation bus, or only the equipment inside the plant. With this in mind, a NERC checklist (on approved elements) should be provided to the user of this standard. This would give a uniformity that would allow all sectors (and NERC) to see that companies are in compliance with said standard(s).</p> <p>It is not clear what is meant by an emergency rating for a generator. In particular, R2.4.2 and the Severe VSL references emergency ratings that appear to apply to generators.</p> <p>R1.2 should be removed as a requirement. For example, it would be difficult to find commissioning data for a sixty year old plant. One option would be to include a statement that requires the use of the data if it is available. However, this in essence makes the requirement unenforceable because an audit team can't verify if the data is truly unavailable.</p>
Response:	

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Question #10	
Commenter	Comment
Manitoba Hydro	A Severe Violation Severity Level should be limited to situations where rating data is not provided (D2.4.2). The critical issue is that planners and operators of the electric system have rating data. How does the failure to make a Facility Ratings Methodology document available for inspection (D2.4.1, D2.4.3) jeopardize the reliability of the system?
Response:	
Oncor Electric Delivery	<p>Suggest adding "relevant" in R1.4</p> <ul style="list-style-type: none"> - Suggest inserting "Transmission" after "...jointly owned..." in R2 (to clarify and to maintain parallel with R1) - Suggest imbedding footnotes into the body of the standard as being more effective and more appropriate when an essential part of the requirements - Suggest omitting parenthesis in R2.4 as unnecessary - The phrase "major cities or load pockets" in R7.3 may be problematic for enforcement without dimensions or similar criteria - Do not understand having different audit periods for Transmission Operator (3 years) vs Generation Operator (6 years) in D1.2 - - Do not understand why D2.4.1 (severe) is only 15 days when D2.3.3 (high) is 42 days; seems "backwards" (similar problem with D2.4.1 vs. D2.4.3)
Response:	
SERC GS	<p>The SERC GS believes the attempt to generically apply reliability concepts needed for transmission facilities to generation facilities has created confusion as to what is needed for generation plants to assure system reliability. Emergency ratings are only applicable to transmission facilities and are not typically used for generation facilities. Some generation units do have peaking MW capability which when used, likely will limit MVAR capability. The GS believes the generation requirements in FAC-008 should be eliminated and the validation activities addressed in MOD-24 and 25, with the operating limit assumptions included therein, are adequate for reliability purposes.</p> <p>If applicability of FAC-008 to generation facilities is maintained, clarification is needed on how R2 applies to generation owners. Recommend adding "transmission or substation" to the language in R2 such that it readsThe Transmission Owner and Generator Owner shall each have a documented methodology for determining Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned "transmission or substation" Facilities.</p> <p>Modify R1 such that it readsfacilities that identifies "how" the following were considered.</p>

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Question #10	
Commenter	Comment
	Separate violation security levels are needed for generation and transmission facilities consistent with the separation into the R1 and R2 requirements.
Response:	
Xcel Energy Services	<p>In the clean version of the draft standard, Requirement No. 1 is not formatted correctly. It appears that what is published as R1.1.1 should be R1, and R1.2 through R1.6 should be renumbered as R1.1 to R1.5.</p> <p>The last part of R1 says ".. that identifies the following were considered:" Does this mean ".. that identifies that all of the following were considered:", or ".. that identifies which of the following were considered:"?</p> <p>There is a difference between the redlined and clean versions of R2 which makes it appear (in the clean version) that Generator Owners have to two separate Facility Ratings methodologies for each of their applicable generating plants. We are assuming, in this case, that the redlined version is more correct.</p> <p>For jointly owned facilities are all owners expected to comply with this standard (i.e. do you expect each joint owner to develop their own methodology for the same equipment), or is the equipment operator responsible for developing the methodology?</p>
Response:	
Ameren	<p>The standard should clarify what emergency ratings mean for the generator facilities versus the transmission facilities. Generators do not have an emergency rating, but some transformers and other transmission equipment do.</p> <p>Section 4.2 – Suggest they define “directly connected to BES” and give example. Does that mean not through a GSU, breaker, or other but the generator is connected directly to the system? Same logic applies to the “not directly connected to BES” – does this mean through a GSU? We believe that this was actually clearer in the old version of 4.2.</p> <p>R1&R2 – List which equipment is applicable to this standard. Is it limited to generator, generator bus, GSU? Maybe defining exactly what a “generating unit Facility” is would be helpful.</p> <p>R1.1 – Commissioning data may be difficult to find on facilities built in 1940’s or before – is there some reasonable exception allowance for commissioning data?</p> <p>R2.1 – Suggest listing equipment which “compromises a facility.” This could be almost any plant equipment.</p>

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Question #10	
Commenter	Comment
	<p>R1.1.1. - Are there too many sub-points? Shouldn't this be R1.1?</p> <p>In Compliance Section 1.3, there is an unneeded "and" after Transmission Owner in the second sentence on page 7 of 9.</p> <p>Regarding the Violation Severity Levels on page 8 of 9, why was it decided to mix business days with calendar days in 2.1.5, 2.2.3, and 2.3.3? To avoid confusion, it is suggested to use one or the other (business days or calendar days), but not both.</p>
Response:	
ATC	<p>ATC believes that a Transmission Owner should have documented methodology for determining facility ratings but does not agree that NERC should require or sanction specific practices. The sharing of methodologies will ensure a high quality of peer review and discussion. Therefore ATC believes that footnote number 1 should be deleted.</p> <p>Any new Standard must allow time for entities to comply. At our startup we combined the assets of several different companies that each had their own ratings methodology. If this standard was active at that time we would have been automatically out of compliance because a consistent methodology was not being used throughout our acquired footprint. The Standard along with NERC and the Regional Entities must allow entities time to comply with the new requirements.</p> <p>What amount of time would be given to an entity that goes through a merger/acquisition?</p>
Response:	
FirstEnergy Corp.	<p>The following paragraphs seem to include wording that does not add value to the standard. FirstEnergy recommends changes as follows:</p> <p>3. Purpose: To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on technically sound principles. A Facility Rating is essential for the determination of System Operating Limits. PROPOSED CHANGE: Remove the last sentence "A Facility Rating is essential for the determination of System Operating Limits." This is a fundamental concept of developing Facility Ratings and does not need to be stated in a standard.</p> <p>R1.1.1. The Generator Owner shall have a documented methodology for determining the Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned generating unit Facilities that identifies the following were considered: [Violation Risk Factor: Lower][Time Horizon: Long-term</p>

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #10	
Commenter	Comment
	<p>Planning]</p> <p>R2. The Transmission Owner and Generator Owner shall each have a documented methodology for determining Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned Facilities (except for those generating Facilities addressed in R1) that contains all of the following: [Violation Risk Factor: Lower][Time Horizon: Long-term Planning]</p> <p>PROPOSED CHANGE: Remove "(Facility Ratings Methodology)" in both paragraphs above. There seems no apparent purpose for this wording.</p> <p>Lastly, the clause numbering in the first set of requirements seems incorrectly formatted. Please re-number "R1.1.1" to "R1", and re-number sub-requirements "R1.2 to R1.6" to "R1.1 to R1.5".</p>
Response:	
Midwest ISO	<p>While the NERC RSDP allows the draft standard to be posted with the SAR, this particular case has taken this liberty too far. There is no revised SAR posted with changes due to comments received from the single posting, only changes to the draft standard. It is difficult to see what, if any, changes were made to the draft standard based on comments.</p> <p>FERC has set deadlines in the past that have required shortening the process due to deadlines but NERC has never conducted the SAR and Standard drafting phases at the same time. Shortening the process is also not necessary because NERC was given a year by FERC to modify this standard. If additional time is needed NERC should request an extension from FERC rather than deviate from the procedure.</p> <p>While there is a need for this standard, it is written too verbose (9 pages to say that TOs and GOs have a publicly available methodology, use their methodology, and respond to requests). The measures are complex and deficient in that they ask the GO and TO to prove the negative (retain evidence that they responded to all requests in x days). As an example for improvement, the drafting team could re-write requirement 7 in short simple sentences:</p> <p>A transmission owner shall respond to requests for the most limiting equipment in a facility within 30 days. The request must be from an RC, TOP, PC, or TP. The Facility Rating must meet the following conditions:</p> <p>Short simple sentences will result in a much clearer standard.</p> <p>The violation severity levels are arbitrary. What is the justification for choosing a high violation for</p>

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Question #10	
Commenter	Comment
	<p>failing to provide the facility rating methodology after 42 days but before 56 days? It is also not clear if these are calendar days or business days.</p> <p>Additionally, this standard should not be re-written without consideration of MOD-024 and MOD-025. Many of the requirements in the FAC-008-2 draft standard are similar or duplicate to requirements in MOD-024, MOD-025 and FAC-009. By including these standards in the scope, the drafting team could appropriately reflect that the responsibility to insure that ratings for its owned facilities are represented correctly and consistently for operating, planning and applicable tariff uses belongs to the TO and GO. This would allow the standards to reflect the basic flow of ratings information and avoid duplication.</p> <p>Finally, some distinction in the standard may be needed when a limit is based on electrical versus mechanical/environmental conditions.</p> <p>It is not clear what facilities should be included when deciding the generator rating. For example, should the GSU be included, the generation bus, or only the equipment inside the plant.</p> <p>It is not clear what is meant be an emergency rating for a generator. In particular, R2.4.2 and the Severe VSL references emergency ratings that appear to apply to generators.</p> <p>R1.2 should be removed as a requirement. For example, it would be difficult to find commissioning data for a sixty year old plant. One option would be to include a statement that requires the use of the data if it is available. However, this in essence makes the requirement unenforceable because an audit team can't verify if the data is truly unavailable.</p>
Response:	
Omaha Public Power District	<p>In Item 4.2 of the Introduction, clarify exactly what is meant by a plant being directly connected to the BES. Is a unit connected to the BES through a step-up transformer considered to be directly connected to the BES? In R6, the following phrase doesn't seem to add anything: "that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities." What is the purpose of including that phrase?</p> <p>Similarly, in M6, the following phrase doesn't seem to add anything: including new Facilities, existing Facilities, modifications to existing Facilities and re-ratings of existing Facilities</p> <p>Assuming that the drafting team decides to strike the two phrases shown above, Item 2.2.2 under</p>

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Question #10	
Commenter	Comment
	<p>Compliance needs to be struck, and the phrase associated with existing Facilities should be removed from Item 2.1.4 under Compliance.</p> <p>In R7.3, change the words "An Interconnection Reliability Operating Limit" to A Facility Rating upon which an Interconnection Reliability Operating Limit is based.</p>
Response:	
SCE&G ERO Working Group	SCE&G would like clarification between generation facility "ratings" and facility "capabilities". If there is no difference, then the provisions within MOD -024 and MOD-025 provide this information.
Response:	
Pepco Holdings, Inc	The posted files appear to be corrupted. The clean copy dos not match the redline, and the redline file downloaded does not match the online file.
Response: Agree. The drafting team corrected the format errors.	
Southern Company - Transmission	<p>The posted "Clean" and "Red-Line" versions of the draft standard appear to be out of synch. The Clean version starts with Requirement 1.1.1 while the Red-Line version seems to be the "correct" version as it begins with Requirement 1. Formatting inconsistencies give R1 of the Clean version five sub-sections while the Red-Line version has six sub-sections under what should Requirement 1. If the generator requirements in FAC-008 are retained, we recommend re-ordering R1.1 - R1.5 to be more consistent with R2.2 and to reflect a more logical sequence:</p> <ul style="list-style-type: none"> R1.1. Equipment Rating standard(s) used in development of this methodology. R1.2. Ratings provided by equipment manufacturers. R1.3. Ambient conditions. R1.4. Performance history or testing accompanied by engineering analysis. R1.5. Facility commissioning data. <p>Generator Facility Ratings are normally based on design information which is covered by R1.1 - R1.3. Methods stated in R1.4 and R1.5 typically are used only when design information is not available or in question or for validation purposes.</p> <p>Also, the word "how" should be added to R1 as follows: "that identifies 'how' the following were considered:" This is clearer and is consistent with R2.2.</p> <p>We appreciate the work of the Drafting Team in its development of a reasonable standard and are grateful for the opportunity to provide comment on this draft.</p>
Response: The drafting team thanks you for your comments and has corrected the typographical errors.	
Bandera Electric	BEC commends the SDT for their effort in improving this standard.

Consideration of Comments on 2nd Draft of Facility Ratings Standard (Project 2006-09)

Question #10	
Commenter	Comment
Cooperative, Inc.	
Response:	
TVA	none
ERCOT	No additional comments.

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 approved SAR and standard for posting (January 11, 2007).
2. Posted for initial comment period from January 15 – February 28, 2007.

Proposed Action Plan and Description of Current Draft:

This is the second draft of the proposed standard, posted for a 30-day comment period, along with the associated implementation plan from July 19 – August 17, 2007.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Post response to comments.	September 4, 2007
2. Post for 30-day pre-ballot review	September 13 – October 12, 2007
3. Conduct initial ballot	October 15 – 24, 2007
4. Respond to comments with initial ballot	October 28, 2007
5. Conduct recirculation ballot	October 29- November 7, 2007
6. Post for BOT 30-day preview	To be determined
7. BOT adoption	To be determined

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.

None.

A. Introduction

1. **Title:** Facility Ratings
2. **Number:** FAC-008-2
3. **Purpose:** To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on technically sound principles. A Facility Rating is essential for the determination of System Operating Limits.
4. **Applicability**
 - 4.1. Transmission Owner.
 - 4.2. Generator Owners with units in a plant directly connected to the BES and units in a plant with an aggregate > 300 MVA (gross nameplate rating) not directly connected to the BES
5. **Proposed Effective Date:** The first day of the first calendar quarter that is twelve months beyond the date approved by applicable regulatory authorities.

B. Requirements

- R1. The Generator Owner shall have a documented methodology for determining the Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned generating unit Facilities that identifies **how** the following were considered: *[Violation Risk Factor: Lower]* *[Time Horizon: Long-term Planning]*
 - R1.1. Facility commissioning data.
 - R1.2. Performance history or rating verification accompanied by engineering analysis.
 - R1.3. Ratings provided by equipment manufacturers.
 - R1.4. Ambient conditions.
 - R1.5. Equipment Rating standard(s) used in development of this methodology.
- R2. The Transmission Owner and Generator Owner shall each have a documented methodology for determining Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned Facilities (except for those generating Facilities addressed in R1) that contains all of the following: *[Violation Risk Factor: Lower]* *[Time Horizon: Long-term Planning]*
 - R2.1. The methodology used to establish the Ratings of the Equipment that comprises the Facility shall be consistent with one or more industry Equipment Rating standards or guidelines.¹
 - R2.2. The underlying assumptions, design criteria, and methods used to determine the Equipment Ratings identified in R2.1 including identification of how the following were considered:
 - R2.2.1. Equipment Rating standard(s) used in development of this methodology.
 - R2.2.2. Ratings provided by equipment manufacturers.
 - R2.2.3. Ambient conditions (for particular or average conditions or as they vary in real-time).

¹ The industry Equipment Rating standard or practice used must be either a nameplate rating; IEEE Standards or Guides; or a recognized, published industry-accepted practice such as a CIGRE guideline, or other similar documents.

- R2.2.4.** Operating limitations.²
- R2.3.** A statement that a Facility Rating shall respect the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.
- R2.4.** The method by which the Rating (of equipment that comprises a Facility) is determined.
- R2.4.1.** The scope of equipment addressed shall include, but not be limited to, transmission conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.
- R2.4.2.** The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.
- R3.** 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 Coordinators that have responsibility for the area in which the associated Facilities are located, within 21 calendar days of receipt of a request. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning*]
- R4.** If a Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator 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 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. [*Violation Risk Factor: Lower*] [*Mitigation Time Horizon: Operations Planning*]
- R5.** The Transmission Owner and Generator Owner shall each have Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]
- R6.** 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 Coordinator(s), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]
- R7.** If a Transmission Owner receives a request (from an associated Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator) for identification of the most limiting Equipment that comprises a Facility and the hypothetical increase in the Facility's Rating if that most limiting Equipment that comprises that Facility were not considered in the development of that Facility Rating, the Transmission Owner shall provide the requested information within 30 calendar days,(or a later date if specified by the requester) if the Facility Rating meets all of the following criteria: [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning*]
- R7.1.** It is a thermal rating.
- R7.2.** It is not limited by a conductor rating.

² Including temporary de-ratings of impaired equipment in accordance with good utility practice.

- R7.3.** It can be classified as one of the following:
- An Interconnection Reliability Operating Limit
 - A limitation of Total Transfer Capability
 - An impediment to generation deliverability
 - An impediment to service to major cities or load pockets

C. Measures

- M1.** The Generator Owner shall have a documented Facility Ratings Methodology that considers all of the items identified in Requirement 1.1 through Requirement 1.5.
- M2.** The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the items identified in Requirement 2.1 through Requirement 2.4.
- M3.** The Transmission Owner and Generator Owner shall each have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it made its Facility Ratings Methodology available for inspection within 21 calendar days of a request in accordance with Requirement 3.
- M4.** If the Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator 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, (such as a copy of a dated electronic note or other comparable evidence from the Transmission Owner or Generator Owner addressed to the commenter that includes the response to the comment,), that it provided a response to that commenting entity in accordance with Requirement 4.
- M5.** The Transmission Owner and Generator Owner shall have evidence to show or shall be able to demonstrate that its Facility Ratings are consistent with its Facility Ratings Methodology (Requirement 5).
- M6.** The Transmission Owner's and Generator Owner's set of Facility Ratings shall include ratings for its solely and jointly owned Facilities including new Facilities, existing Facilities, modifications to existing Facilities and re-ratings of existing Facilities. (Requirement 5)
- M7.** The Transmission Owner and Generator Owner shall each have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it provided its Facility Ratings to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with Requirement 6.
- M8.** The Transmission Owner shall each have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it provided requested information (identification of the most limiting Equipment that comprises a Facility and the hypothetical increase in the Facility's Rating if that most limiting Equipment that comprises that Facility were not considered in the development of that Facility's Rating) to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with Requirement 7.

D. Compliance

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

1.2. Compliance Monitoring Period and Reset Timeframe

One or more of the following methods will be used to assess compliance:

- Self-certification (conducted annually with submission according to schedule).
- Spot check audits (conducted anytime with up to 30 days notice given to prepare).
- Periodic audit (conducted once every three years according to schedule for the Transmission Operator and once every six years according to schedule for the Generator Operator).
- Investigations.
- Other methods as provided for in the Compliance Monitoring Enforcement Program.

The Reset Timeframe shall be one month from the last finding of noncompliance.

1.3. Data Retention

The Generator Owner shall keep its evidence for Measures 1 through 7 for three years plus current, or since the last audit, whichever is longer.

The Transmission Owner shall keep its evidence for Measures 2 through 7 for three years plus current or since the last audit, whichever is longer.

If a Generator Owner or Transmission Owner is found non-compliant, it 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:

- 1.4.1 Facility Ratings Methodology.
- 1.4.2 Industry Equipment Rating standards or practice(s) used for developing Equipment Ratings.
- 1.4.3 Superseded portions of its Facility Ratings Methodology that had been replaced, changed or revised within the past 12 months.
 - 1.4.3.1 The Compliance Monitor may, at its determination, request some or all the previous three years of the superseded portions of the entity's Facility Ratings Methodology that had been replaced, changed or revised as part of an audit or investigation.
- 1.4.4 Documented comments provided by a Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings methodology, and the associated responses.
- 1.4.5 Facility Ratings.
- 1.4.6 Evidence that Facility Ratings were distributed.
- 1.4.7 Distribution schedules provided by entities that requested Facility Ratings.

2. Violation Severity Levels

2.1. **Lower:** There shall be a lower violation if one or more 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 R2.4.1.
 - 2.1.3 No evidence of responses to a Reliability Coordinator's, Transmission Operator, Transmission Planner, or Planning Coordinator's comments on the Facility Ratings Methodology.
 - 2.1.4 Not all requested Facility Ratings associated with existing Facilities were provided to the Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with their respective schedules.
 - 2.1.5 The Facility Ratings Methodology was not made available for inspection within 22 business days of receipt of a request, but was provided within 28 calendar days of receipt.
- 2.2. **Moderate:** There shall be a moderate violation if one or more of the following conditions exists:
- 2.2.1 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 R2.4.1.
 - 2.2.2 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 Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with their respective schedules.
 - 2.2.3 The Facility Ratings Methodology was not made available for inspection within 29 business days of receipt of a request, but was provided within 42 calendar days of receipt.
- 2.3. **High:** There shall be a high violation if one or more of the following conditions exists:
- 2.3.1 The Facility Ratings Methodology does not address three or more of the required equipment types identified in FAC-008 R2.4.1.
 - 2.3.2 Facility Ratings provided were not developed consistent with the Facility Ratings Methodology.
 - 2.3.3 The Facility Ratings Methodology was not made available for inspection within 42 business days of receipt of a request, but was provided within 56 calendar days of receipt.
- 2.4. **Severe:** There shall be a severe violation if one or more of the following conditions exists:
- 2.4.1 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.
 - 2.4.2 No Facility Ratings were provided to the Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), or Transmission Operator(s) in accordance with their respective schedules.

2.4.3 The Facility Ratings Methodology was not made available for inspection within 57 calendar days of receipt of a request, or was not provided for inspection at all.

E. Regional Variances

None Identified

F. Associated Documents

None Identified

Version History

Version	Date	Action	Change Tracking
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