NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

Monitor and Assess Short-term Transmission Reliability — Operate Within Transmission System Limits Standard Drafting Team Meeting

Monday, April 28, 2003, 2 p.m.–7 p.m.
Tuesday, April 29, 2003, 8 a.m.–3 p.m.

The Sheraton Grand Hotel (At the DFW Airport)
Irving, Texas

Meeting Agenda

1. Administrative

a. Membership and Guests — Chair
b. Introductions — Chair
c. Organization, Roster, and Survey Contacts List — Secretary
d. Arrangements — Secretary
e. Procedures
    i. Parliamentary Procedures — Chair
    ii. Anti-Trust Compliance Guidelines — Chair

2. Monitor and Assess Short-term Reliability — Operate Within Transmission System Limits Standard Draft

a. Continue Drafting Standard Elements
b. Continue Drafting Compliance Elements
c. Continue Compiling Parking Lot Issues

3. Future Meetings

a. Future Meetings and Conference Calls, to be Determined During the Meeting

1. Administrative

Monitor and Assess Short-term Transmission Reliability — Operate Within Transmission System Limits Standard Drafting Team Meeting

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e. Procedures
    i. Parliamentary Procedures — Chair
    ii. Anti-Trust Compliance Guidelines — Chair

Item 1.a Membership and Guests

On behalf of the "Monitor and Assess Short-term Reliability — Operate Within Transmission System Limits" Standard Drafting Team, Chairman Ed Riley welcomes the "Operate Within Limits" SDT members and all guests to Irvington, Texas and to this meeting.

Item 1.b Introductions

The Chair will ask members and guests to introduce themselves.

Item 1.c Roster, Contacts List and Attendance Sheet

The Secretary will review the current Roster and Contacts List. Each member is asked to check the data for accuracy. Each meeting attendee is asked to sign and complete the attendance sheet.

Attachment

Roster with Contact Information

Item 1.d Arrangements

Standard Drafting Team Secretary, Tom Vandervort, will review the meeting arrangements. The Operate Within Limits SDT meeting begins on Monday, April 28, 2003, at 2 p.m. and will adjourn by 7 p.m. The SDT will reconvene Tuesday, April 29, at 8 a.m. and will adjourn by 3 p.m. Lunch will be served on Tuesday.

Item 1.e Parliamentary Procedures

i. Parliamentary Procedures:

A summary of Parliamentary Procedures is attached for reference. The Secretary will answer questions regarding these procedures.

ii. Anti-Trust Compliance Guidelines:

On June 14, 2002 the NERC Board of Trustees adopted antitrust compliance guidelines for NERC. In adopting the guidelines, the Board passed the following resolution:

RESOLVED, that the Board of Trustees (1) adopts the draft Antitrust Compliance Guidelines attached hereto as Exhibit A and (2) instructs that these Antitrust Compliance Guidelines be included in the agenda package for each meeting of every NERC committee, subcommittee, task force, working group, and other NERC-sponsored activity.

The resolution also applies to workshops, training sessions, and any other NERC-sponsored events. A copy of the NERC Anti-Trust Compliance Guidelines will be included in the agenda package for each meeting of each group or event.

Attachment

Parliamentary Procedures
NERC Anti-Trust Guidelines

2. Monitor and Assess Short-term Transmission Reliability — Operate Within Transmission System Limits Standard — Draft

a. Continue Drafting Standard Elements
b. Continue Drafting Compliance Elements
c. Continue Compiling Parking Lot Issues

Discussion and Action:

The Standard Drafting Team (SDT) will review all "Monitor and Assess Short-term Transmission Reliability — Operate Within Transmission System Limits" draft standard comments. Those comments that are evaluated to be beneficial or appropriate to enhance the standard will be incorporated. Those comments that are evaluated to be insignificant or do not enhance the standard will not be incorporated. The SDT will respond to all comments in accordance with the NERC Reliability Standards Process Manual.

Issues and concerns that cannot be addressed and resolved by the SDT will be added to the list of Parking Lot Issues.

After all comments have been evaluated and the draft standard has been enhanced appropriately, the SDT will determine if the draft standard requires posting for another round of public comments or if it is ready for the next phase of the standard process — authorization and implementation.

The immediate goals of the "Monitor and Assess Short-term Transmission Reliability — Operate Within Transmission System Limits" Standard Drafting team are:

- Review all comments from the initial standard public posting
- Incorporate additions and deletions deemed appropriate to enhance the draft standard
- Determine if the enhanced draft standard needs another posting for public comments
- Prepare a comment form to accompany the draft standard, if necessary
- Post the standard for public comment, if necessary

Attachment

a) Monitor and Assess Short-term Transmission Reliability — Operate Within Transmission System Limits, Draft — (Work in Progress) Standard Drafting Team

b) Monitor and Assess Short-term Transmission Reliability — Operate Within Transmission System Limits, SAR, SAR ID # OPER_WITHN_LMTS_01_03

c) "Operate Within Limits" SDT Parking Lot Issues

3. Future Meetings

a. Future meetings and conference calls to be determined during the meeting

Discussion and Action:

The Standard Drafting Team will determine the next time a meeting or conference call will be scheduled to continue drafting the "Operate Within Limits" Standard.

"Operate Within Limits" SDT Roster

Edward R. (Ed) Riley (Chairman) Director of Regional Coordination	California ISO 151 Blue Ravine Rd. Folsom CA 95630	916-351-4463 (office) 916-802-9558 (cell) eriley@caiso.com
Paul Cafone	Public Service Electric & Gas Co. 80 Park Plaza Newark NJ 07101	973- 430-5001 (office) 201- 315-0174 (cell) paul.cafone@pseg.com
Albert DiCaprio (Requestor) Manager, Scheduling Department	PJM Interconnection, L.L.C. 955 Jefferson Avenue Valley Forge Corporate Center Norristown, PA 19403-2497	610-666-8854 (office) dicapram@pjm.com
Tony Jankowski Mgr., Electric System Operations	WE-Energies W237 N1500 Busse Rd Waukesha WI 53188-1124	262-544-7117 (office) 414-322-6982 (cell) tony.jankowski@weenergies.com
Wendy Ladd	Duke Energy/VACAR South PO Box 1244 Charlotte, NC 28201-1244	704-382-6940 (office) wtladd@duke-energy.com
John Muir	Consolidated Edison of New York 4 Irving Place, Room 1475-S New York, NY 10003	212-460-3760 (office) 908-403-4922 (cell) muirj@coned.com
Ellis Rankin Mgr. Grid Operations	Oncor 2233B Mt. Creek Parkway Dallas, TX 75211-6716	214-743-6825 (office) 214-549-6179 (cell) erankin@oncorgroup.com
Gerald Rheault	Manitoba Hydro P.O. Box 815 820 Taylor Avenue Winnipeg Manitoba R3C 2P4	204-487-5423 (office) gnrheault@hydro.mb.ca
William Thompson	American Electric Power 155 W. Nationwide Blvd. Suite 500 Columbus, OH 43215	614-583-7230 (office) 614-348-8836 (cell) wrthompson@aep.com
Toni L. Timberman Electrical Engineer	BPA TOT-DITT-2 5411 NE Highway 99 Vancouver, WA 98663	360- 418-2327 (office) 360- 607-9093 (cell) tltimberman@bpa.gov
Thomas J. Vandervort Manager – Resources	NERC 116-390 Village Boulevard Princeton, NJ 08540-5731	609-452-8060 (office) 609-452-9550 (fax) tom.vandervort@nerc.net
Charles V. Waits Vice President - Operations & Transmission Strategy	Michigan Electric Transmission Company, LLC 540 Avis Drive, Suite H Ann Arbor, Michigan 48108	734-929-1227 (office) cwaits@metcllc.com
List Server for Standard DT		opwinlimsdt@nerc.com

Parliamentary Procedures

Based on Robert's Rules of Order, Newly Revised, 1990 Edition

Motions

Unless noted otherwise, all procedures require a "second" to enable discussion.

When you want to…	Procedure	Debatable	Comments
Raise an issue for discussion	Move	Yes	The main action that begins a debate.
Revise a Motion currently under discussion	Amend	Yes	Takes precedence over discussion of main motion. Motions to amend an amendment are allowed, but not any further. The amendment must be germane to the main motion, and cannot reverse the intent of the main motion.
Reconsider a Motion already approved	Reconsider	Yes	Allowed only by member who voted on the prevailing side of the original motion.
End debate	Call for the Question *or* End Debate	No	If the Chair senses that the committee is ready to vote, he may say "if there are no objections, we will now vote on the Motion." Otherwise, this motion is debatable and subject to 2/3 majority approval.
Record each member's vote on a Motion	Request a Roll Call Vote	No	Takes precedence over main motion. No debate required, but the members must approve by 2/3 majority.
Postpone discussion until later in the meeting	Lay on the Table	Yes	Takes precedence over main motion. Used only to postpone discussion until later in the meeting.
Postpone discussion until a future date	Postpone until	Yes	Takes precedence over main motion. Debatable only regarding the date (and time) at which to bring the Motion back for further discussion.
Remove the motion for any further consideration	Postpone indefinitely	Yes	Takes precedence over main motion. Debate can extend to the discussion of the main motion. If approved, it effectively "kills" the motion. Useful for disposing of a badly chosen motion that ca not be adopted or rejected without undesirable consequences.
Request a review of procedure	Point of order	No	Second not required. The Chair or secretary shall review the parliamentary procedure used during the discussion of the Motion.

Notes on Motions

Seconds. A Motion must have a second to ensure that at least two members wish to discuss the issue. The "seconder" is not recorded in the minutes. Neither are motions that do not receive a second.

Announcement by the Chair. The Chair should announce the Motion before debate begins. This ensures that the wording is understood by the membership. Once the Motion is announced and seconded, the Committee "owns" the motion, and must deal with it according to parliamentary procedure.

Revisions. Technically, revisions to the main motion are accomplished by the Amend procedure. However, immediately after making the motion, and before it is announced by the Chair, another member may ask that the motion be revised. If the original "motion-maker" agrees to the revision, then the revised motion will be the one debated. The original "seconder" need not be consulted, because the original "motion-maker" plus the "reviser" constitute a motion and a second.

Voting

Voting Method	When Used	How Recorded in Minutes
Unanimous Consent	When the Chair senses that the Committee is substantially in agreement, and the Motion needed little or no debate. No actual vote is taken.	The minutes show "by unanimous consent."
Vote by Voice	The standard practice.	The minutes show Approved or Not Approved (or Failed).
Vote by Show of Hands (tally)	To record the number of votes on each side when an issue has engendered substantial debate or appears to be divisive. Also used when a Voice Vote is inconclusive. (The Chair should ask for a Vote by Show of Hands when requested by a member).	The minutes show both vote totals, and then Approved or Not Approved (of Failed).
Vote by Roll Call	To record each member's vote. Each member is called upon by the Secretary,, and the member indicates either "Yes," "No," or "Present" if abstaining.	The minutes will include the list of members, how each voted or abstained, and the vote totals. Those members for which a "Yes," "No," or "Present" is not shown are considered absent for the vote.

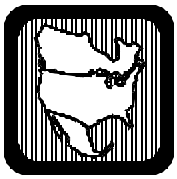
Notes on Voting

(Recommendations from DMB, not necessarily Mr. Robert)

Abstentions. When a member abstains, he is not voting on the Motion, and his abstention is not counted in determining the results of the vote. The Chair should not ask for a tally of those who abstained.

Determining the results. The results of the vote (other than Unanimous Consent) are determined by dividing the votes in favor by the total votes cast. Abstentions are not counted in the vote and shall not be assumed to be on either side.

"Unanimous Approval." Can only be determined by a Roll Call vote because the other methods do not determine whether every member attending the meeting was actually present when the vote was taken, or whether there were abstentions.



NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

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 which 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.

Approved by NERC Board of Trustees
June 14, 2002

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:

- Organization Standards Process Manual
- Transitional Process for Revising Existing NERC Operating Policies and Planning Standards
- 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 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.

Requirement 1
The RA shall monitor (in real time) the operating limits (identified to prevent cascading outages, instability, uncontrolled separation that adversely impact the reliability of the bulk transmission system) and the actual real time values associated with those limits.
Function(s)
Reliability Authority
Expected Performance/Outcome
Real time operating limits are monitored, and compared against the actual values associated with those limits. (link to other requirement for analysis)
Measure(s)
Operating limits are available in real time. Actual real time values are available in a form that can be compared to the limits.
Data/Information Needed to Demonstrate Compliance
Real time operating limits identified to prevent cascading outages, instability, uncontrolled separation that adversely impact the reliability of the bulk transmission system. Display Real time values associated with these real time operating limits
Entity Responsible for Providing the Data/information
RA responsible for having real time information (limits and actual values)
Entity Responsible for Evaluating the Data/information
Compliance Monitor (RRO today)
Process Used to Evaluate Data/information (self-certification or other process)
Self-certification with re-certification on a schedule established by the Compliance Monitor[1]
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Periodic Reviews Spot Reporting (each year, 1/3 of the total # of RAs under the Compliance Monitor's authority) Triggered Investigation
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
One year
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving
3 years – Compliance Monitor keeps audited data – Reliability Authority keeps data on limits

[1] At this point in time, the Compliance Monitor is the Regional Council

Level 1	Actual telemetered value for a critical facility unavailable, so surrogate value monitored for up to 24 hours
Level 2	Actual telemetered value for a critical facility unavailable, so surrogate value monitored for up to 48 hours **OR** Values monitored don't include all critical facilities – one facility missing
Level 3	
Level 4	Operating limits are not being monitored or actual values associated with operating limits are not being monitored

Requirement 2
The RA shall specify what data it needs to perform transmission reliability analyses and shall collect that data needed.
Function(s)
RA
Expected Performance/Outcome
There shall be data specified and collected to perform short-term transmission reliability analyses. Changes to data associated with critical facilities shall be provided no less than 7 days prior to the energization of new facilities or changes to existing facilities.
Measure(s)
Keep a copy of correspondence requesting new data needed to perform transmission reliability analyses and not received
Data/Information Needed to Demonstrate Compliance
Data specification needed for reliability analyses
Entity Responsible for Providing the Data/information
RA
Entity Responsible for Evaluating the Data/information
Compliance Monitor
Process Used to Evaluate Data/information (self-certification or other process)
Self-certification
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Periodic Spot Triggered
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
One year
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving
Three years - Compliance Monitor keeps audited data – Reliability Authority keeps data specification document

Level 1	
Level 2	
Level 3	
Level 4	RA aware of change to critical facility, but data needed for analyses not in place at time of energization or change to existing facilities.

Requirement 3
Provide requested data to the RA.
Function(s)
BA, IA, TOW, TOP, GEN, LSE
Expected Performance/Outcome
Requested data was provided as requested(industry accepted format, timeframe, quality) by the RA
Measure(s)
RA confirms that requested data was provided
Data/Information Needed to Demonstrate Compliance
RA indicates it has received data requested
Entity Responsible for Providing the Data/information
(list all)
Entity Responsible for Evaluating the Data/information
Compliance Monitor
Process Used to Evaluate Data/information (self-certification or other process)
(self-certification N/A)
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Exception Reporting Triggered Investigations Periodic Reviews
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
12 months without a violation from the time of the last violation
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving
Three years - RA

Level 1	
Level 2	
Level 3	
Level 4	**Data for new/revised critical facilities was not provided as requested**

Requirement 4
The RA shall perform short-term reliability analyses to identify where on its system the RA may encounter potential problems that could cause instability, uncontrolled separation or cascading outages that adversely impact the reliability of the bulk transmission system.
Function(s)
RA
Expected Performance/Outcome
Short term reliability analysis was performed and produced results that identified any potential problems.
Measure(s)
Analysis results exist
Data/Information Needed to Demonstrate Compliance
Analysis results
Entity Responsible for Providing the Data/information
RA
Entity Responsible for Evaluating the Data/information
Compliance Monitor
Process Used to Evaluate Data/information (self-certification or other process)
Self-certification
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Periodic reviews Spot Review (each year, 1/3 of the total # of RA's under the Compliance Monitor's authority)
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
One year
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving
Analysis results for three years - RA

Level 1	(look at timeliness of running the analyses or depth of studies)
Level 2	No study results available and no system problems occurred
Level 3	Analysis performed but incomplete and system problems occurred that weren't identified in the analysis.
Level 4	Either no analysis was performed or the results of the analyses failed to identify a potential problem and system problems (instability, uncontrolled separation or cascading outages) occurred.

Requirement 5
The RA shall use the results of these analyses to direct actions necessary to prevent instability, uncontrolled separation or cascading outages that adversely impact the reliability of the bulk transmission system.
Function(s)
RA
Expected Performance/Outcome
When the analysis shows a potential problem, actions will be taken to mitigate or prevent the problem and these actions will be documented
Measure(s)
Documentation showing that actions were taken to mitigate/prevent an identified problem
Data/Information Needed to Demonstrate Compliance
Documentation showing that actions were taken when there is an identified problem
Entity Responsible for Providing the Data/information
RA
Entity Responsible for Evaluating the Data/information
Compliance Monitor
Process Used to Evaluate Data/information (self-certification or other process)
Self-certification with re-certification on a schedule established by the Compliance Monitor
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Periodic Reviews (on site, per a schedule) Spot Review (each year, 1/3 of the total # of RAs under the Compliance Monitor's authority, unscheduled) Triggered Investigation
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
One year
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving
3 years – Compliance Monitor keeps audited data – Reliability Authority keeps data on limits

Level 1	Analysis identified a problem – no actions or incorrect actions were taken and no disturbance occurred
Level 2	
Level 3	
Level 4	Analysis identified a problem – no actions or incorrect actions were taken and instability, uncontrolled separation or cascading outages occurred that impacted the reliability of the bulk transmission system.

Requirement 6
The RA shall have a documented mitigation plan that identifies actions to be taken to prevent exceeding identified operating limits. (These are the limits that if exceeded, could cause instability, uncontrolled separation or cascading outages that adversely impact the reliability of the bulk transmission system.)
Function(s)
RA
Expected Performance/Outcome
There is an approved documented plan/procedure(s) that identifies the actions the RA will take to keep within operating limits that, if exceeded, would risk instability, uncontrolled separation or cascading outages that adversely impact the reliability of the bulk transmission system.
Measure(s)
Mitigation plan/procedure(s) that identify actions the RA will take to remain/return to a state that is within operating limits.
Data/Information Needed to Demonstrate Compliance
Mitigation plan and/or procedures
Entity Responsible for Providing the Data/information
RA, TOP
Entity Responsible for Evaluating the Data/information
Compliance Monitor
Process Used to Evaluate Data/information (self-certification or other process)
Self-certification
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Periodic Spot Triggered
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
One year
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving
Plan/procedure in place – RA, TOP

Level 1	Plan/procedure(s) exists but isn't approved
Level 2	Plan/procedure(s) contains actions that are incomplete/wrong but would not be detrimental to the reliability of the interconnected bulk electric system
Level 3	Plan/procedure(s) contains actions that are incomplete/wrong and would be detrimental to the reliability of the interconnected bulk electric system
Level 4	No plan/procedure exists

Requirement 7
The RA shall document instances of exceeding identified operating limits
Function(s)
RA, TOP
Expected Performance/Outcome
There shall be retrievable information that documents exceeding identified operating limits
Measure(s)
Data exists and is retrievable
Data/Information Needed to Demonstrate Compliance
Documentation (usually EMS historical data)
Entity Responsible for Providing the Data/information
RA, TOP
Entity Responsible for Evaluating the Data/information
Compliance Monitor
Process Used to Evaluate Data/information (self-certification or other process)
Self-certification
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Periodic Spot Triggered
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
One year
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving
Three years – RA, TOP

Level 1	
Level 2	
Level 3	
Level 4	Documentation doesn't exist

Requirement 8
The RA shall document and log violations (instances where an operating limit has been exceeded for a specified period of time) and maintain the record for at least 3 years.
Function(s)
RA
Expected Performance/Outcome
Logs and supporting documentation (EMS or other source) of violations shall be available for review for at least three years.
Measure(s)
Record in existence for at least three years
Data/Information Needed to Demonstrate Compliance
Daily Operating Logs and supporting documentation
Entity Responsible for Providing the Data/information
RA
Entity Responsible for Evaluating the Data/information
Compliance Monitor
Process Used to Evaluate Data/information (self-certification or other process)
Self-certification
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Periodic Spot Triggered
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
One year (May be regional difference)
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving
Three years - RA

Level 1	
Level 2	
Level 3	Logs available but supporting documentation unavailable OR Supporting documentation indicates unlogged violation
Level 4	Logs/supporting documentation not available

Requirement 9
The RA shall file a report with its Regional Reliability Authority when specified criteria are exceeded.[2]
Function(s)
RA
Expected Performance/Outcome
If a limit has been violated, a complete report has been filed with the RA's Compliance Monitor
Measure(s)
Report filed with applicable Compliance
Data/Information Needed to Demonstrate Compliance
Entity Responsible for Providing the Data/information
Entity Responsible for Evaluating the Data/information
Process Used to Evaluate Data/information (self-certification or other process)
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving

Level 1	
Level 2	
Level 3	
Level 4	

[2] [2] If an area bounces over a limit, whether it is caused by a contingency or not, this doesn't need to be reported to NERC as long as the area re-prepares within the NERC guidelines. If the NERC criteria are not met, then these violations should be reported.

Requirement 10
Data requested by the RA necessary to perform reliability analyses shall be provided to the RA 24 hours a day, 7 days a week. If data can't be provided for any reason, the RA and the providing entity shall agree upon and implement a solution.
Function(s)
Expected Performance/Outcome
The __ shall provide the requested data without interruption, 24 hours a day, 7 days a week
Measure(s)
The RA shall request an investigation into the problem within 10 minutes of receiving the associated alarm. If an entity discovers that some of its data is inaccurate or if the data can't be provided, the entity with the problem shall resolve the problem or propose a mutually agreed upon solution (to the problem) with the RA.
Data/Information Needed to Demonstrate Compliance
Entity Responsible for Providing the Data/information
Entity Responsible for Evaluating the Data/information
Process Used to Evaluate Data/information (self-certification or other process)
Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
Time Period in Which Performance or Outcomes is Measured, Evaluated, and then Reset
Measurement Data Retention Requirements and Assignment of Responsibility for Data Archiving

Level 1	
Level 2	
Level 3	
Level 4	

Standard Authorization Request (SAR) Form

Title of Proposed Standard:	Monitor and Assess Short-term Reliability - Operate Within Transmission System Limits -
Request Date:	March 7, 2002
Authorized for Posting:	March 20, 2002
SAR ID# :	OPER_WITHN_LMTS_01_03

SAR Requestor Information		***SAR Type*** *(Put an 'x' in front of one of these selections)*	
Name:	Jim Byrd (Al DiCaprio as substitute)	X	New Standard
Primary Contact:	Al DiCaprio		Revision to existing Standard
Telephone:	610 666-8854		Withdrawal of existing Standard
Fax:	610 666-4282		
e-mail:	dicapram@pjm.com		Emergency Action

Purpose/Industry Need

The purpose of this standard is to prevent instability, uncontrolled separation or cascading outages that adversely impact the reliability of the bulk transmission system.

Brief Description

This standard requires adherence to established operating limits[1] identified to prevent instability, uncontrolled separation or cascading outages that adversely impact the reliability of the bulk transmission system.
Requirements shall address:

- Real time monitoring of system parameters against operating limits
- Performing short-term and real-time transmission reliability analyses relative to the identified operating limits
- Performing corrective actions to mitigate exceeding operating limits
- Keeping records and filing reports

[1] These are the limits established through the standard, "Determine Facility Ratings, Operating Limits and Transfer Capabilities"

Reliability Functions

The Standard will Apply to the Following Functions (Put an 'X' in front of each one that applies)		
X	Reliability Authority	Ensures the reliability of the bulk transmission system within its Security Authority Area. This is the highest reliability authority.
	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within its metered boundary and supports system frequency in real time
	Interchange Authority	Authorizes valid and balanced Interchange Schedules
	Planning Authority	Plans the bulk electric system
	Transmission Service Provider	Provides transmission services to qualified market participants under applicable transmission service agreements
	Transmission Owner	Owns transmission facilities
X	Transmission Operator	Operates and maintains the transmission facilities, and executes switching orders
	Distribution Provider	Provides and operates the "wires" between the transmission system and the customer
	Generator	Owns and operates generation unit(s) or runs a market for generation products that performs the functions of supplying energy and Interconnected Operations Services
	Purchasing-Selling Entity	The function of purchasing or selling energy, capacity and all necessary Interconnected Operations Services as required.
	Load-Serving Entity	Secures energy and transmission (and related generation services) to serve the end user

Reliability and Market Interface Principles

Applicable Reliability Principles (Put an 'x in front of all that apply)	
X	1. Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions.
	2. The frequency of interconnected bulk electric systems shall be controlled within defined limits through the balancing of electric supply and demand
X	3. Information necessary for planning and operation of interconnected bulk electric systems shall be made available to those entities responsible for planning and operating the systems reliably
	4. Plans for emergency operation and system restoration of interconnected bulk electric systems shall be developed, coordinated, maintained and implemented
X	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems
X	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified and have the responsibility and authority to implement actions
X	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide area basis
Does the proposed Standard comply with all of the following Market Interface Principles? *(Enter 'yes' or 'no')*	Yes
1. Interconnected The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy	
2. An Organization Standard shall not give any market participant an unfair competitive advantage	
3. An Organization Standard shall neither mandate nor prohibit any specific market structure	
4. An Organization Standard shall not preclude market solutions to achieving compliance with that Standard	
5. An Organization Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards	

Detailed Description

This standard requires that the Reliability Authority and Transmission Operator adhere to established operating limits.
Requirements shall address:

- Real time monitoring of system parameters against operating limits
  - Monitor parameters that indicate the current state of the transmission system
  - Monitor parameters that indicate the current state of tie lines to other systems and of the overall interconnected transmission system
- Performing short-term and real-time transmission reliability analyses relative to the identified operating limits
  - Collect data needed for performing real time reliability analyses
  - Conduct an operating assessment to identify limiting facilities
- Performing corrective actions to mitigate exceeding operating limits
  - Have a documented mitigation plan
  - Implement mitigation plan where necessary
- Keeping records and filing reports
  - Document instances of exceeding identified operating limits
  - Log violations and maintain records for the retention period
  - Report information to NERC based on specified criteria (e.g. magnitude, duration, type of violation, instances of exceeding limits[2])

Related SARs

SAR ID	*Explanation*
FACILITY_RATINGS_01_01	The "Determine Facility Ratings, Operating Limits, and Transfer Capabilities" SAR identifies how operating limits are established. The operating limits established within this proposed standard are referenced in the proposed "Operate Within Transmission System Limits - Monitor and Assess Short-term Reliability" standard.
COORD_OPERATONS_01_01	The "Coordinate Operations" SAR identifies what reliability-related information to exchange between Functions. Some of the information collected within the proposed "Operate Within Transmission System Limits - Monitor and Assess Short-term Reliability" standard will be used in the proposed "Coordinate Operations" standard.
ABNML_&_EM_COND_01_01	The "Prepare for and respond to Abnormal or Emergency Conditions" SAR will be implemented where this one stops. The two SARs are related.

[2] If an area bounces over a limit, whether it is caused by a contingency or not, this doesn't need to be reported to NERC as long as the area re-prepares within the NERC guidelines. If the NERC criteria are not met, then these violations should be reported.

Regional Differences

Region	*Explanation*
ECAR	None identified
ERCOT	None identified
FRCC	None identified
MAAC	None identified
MAIN	None identified
MAPP	None identified
NPCC	None identified
SERC	None identified
SPP	None identified
WECC	None identified

Interconnection Differences

Interconnection	*Explanation*
Eastern	None Identified
Western	None Identified
ERCOT	None Identified

Implementation Plan

Description
The following sections of Operating Policies should be retired when this standard is implemented: Policy 2 – Transmission – Standard A.1. – Standard A.1.1. – Standard A.I.2 – Standard A.2. – Standard A.2.1. – Standard A.2.2. – Requirement A.1. – Requirement A.1.1. – Requirement A.1.2. – Requirement B.1. – Requirement B.5. Policy 9 – Security Coordinator Procedures – Introduction – Introductory paragraph and second and third bullets – Requirement A.1. – Requirement A.1.2. – Requirement C. 3.1. – Requirement C.3.2. – Requirement C.3.2.1. – Requirement C.3.2.1.1. Policy 4 – System Coordination – Section A *(Section A needs careful scrutiny by numerous SAR Drafting Teams)* Policy 5 – Emergency Operations – Section C – Section D

SAR Drafting Team	
Chairman	James Case
Secretary	Tom Vandervort
Requestor	Jim Byrd/Al DiCaprio
Industry Representatives	Daniel Boezio Timothy Cronin Roger Farrugia Mark Fidrych Tony Jankowski Drew Kovalak Bill Lundin Ellis Rankin Edward Riley Richard Schneider Toni Timberman Stanley Williams

Monitor and Assess Short-term Reliability — Operate Within Transmission System Limits

February 6 –7, 2003 SDT Meeting in New Orleans

Parking Lot Issues

The "Monitor and Assess Short-term Reliability — Operate Within Transmission System Limits" Standard Drafting Team (OWL Standard DT) identified a number of issues and concerns, relative to the standard, that could not be answered by the team. The "Parking Lot Issues" will be forwarded to the NERC, Director–Standards for evaluation and disposition. The list can possibly to be given to a subcommittee, group, task force or individual to address. The OWL Standard DT will address or collaborate with others to address concerns (e.g. standard definitions) if requested by the NERC Director–Standards.

The following issues are perceived to go beyond the scope of the OWL Standard DT.

Parking Lot Issues

1. "Transmission Operator" vs. "Transmission Owner" Functional Language
The Functional Model (previously identified as the Reliability Model) definitions and responsibilities of "Transmission Operator" and "Transmission Owner" conflict with actual functional operations. As a specific example PJM was identified as a "transmission operator" but does not perform Reliability Model defined responsibilities. PJM, as the "Transmission Operator," does not perform switching, maintenance, etc. The respective "Transmission Owners" performs these tasks.

2. "Standing Committee" vs. "Appropriate Body" language
The NERC Reliability Standards Process Manual identifies most Supporting Reference Documents as being approved and authorized by "Standing Committees." With the future of the NERC Standing Committees in question, the language does not appear to be correct to the OWL Standard DT. A possible solution is to remove the language referring to who develops the associated reference documentation from "Standing Committees" and replace with "Appropriate Entity"

3. Proposed "Operate Within Limits" Standard Definitions
The OWL Standard DT identified the following terms that will be used in the standard. However, most are generic industry terms that may be addressed and defined by other entities such as other SAR/Standard Drafting Teams, Functional Model Review Task Group, Data Exchange Working Group, Operating Reliability Subcommittee, Operating Committee, Planning Committee, Market Interface Committee, the Standard Process Manager, Operating Limits Definition Task Force, etc.

Definitions to support the "Operate Within Limits" Standard that are needed:

Data Quality
Industry Accepted Format
System Operating Limit * Defined by another standard
Reliability Analysis (Reliability analyses includes both real time and operational planning anlyses)

4. NERC Authority Over "Non-Reliability Model" Entities
What authority does NERC have over "Non-Functional Model" entities to supply data to RA or other functions in the Functional Model? Identification of which bulk power system(s) NERC has authority over is necessary.

5. OSL / SOL / ORL Definitions by Various Groups
Many entities are developing and defining Operating Security Limits (OSL) / Security Operating Limits (SOL) / Reliability Operating Limits (ROL) definitions and limits (e.g. Dave Hilt's Operating Limits Definition Task Force, "Facility's Rating" SAR, RCWG, FMTG, etc.). A lot of players are contributing their input into defining various "operating limits." A consensus on the various definitions is necessary.

6. Functional Model Function Equivalent to the Current RRO
How do we designate a supervisory or administrative function equivalent to the current RRO, which is not found in the Functional Model? In WECC individual "operating security limits" will not be reported to NERC since any "OSL" violations fall under the RRO - WECC Reliability Management System contract which has a confidentiality clause. Only a WECC aggregate number will be reported to NERC, is that sufficient? The OWL Standard DT believes a supervisory function such as to "The Entity Responsible for Regional Responsibilities" may be needed.

The NERC Reliability Standards Process Manual identifies "NERC and Regional Reliability Council Members," "Regional Differences," "Regional Standards," "Criteria for Regional Standards and Regional Differences," and yet the Reliability Model does not identify the Regions, the RROs, or "Entities Responsible for Regional Responsibilities" in the model. At times the Standard Drafting Team identified RROs in developing Standard Requirements, Expected Performance / Outcome and Measures. To address the lack of RRO or equivalent in the Functional Model, "Compliance Monitor" was used.

7. Compliance of Non-Regional Entities
Compliance-wise, what happens to those entities that are not currently part of a region? How are they picked up within the Reliability Model?

8. * Separation of Standard Reliability Elements and Compliance Aspects *****
The OWL Standard DT questions the appropriateness of the Standard DT designating the respective compliance criteria, including levels of non-compliance and sanctions. The Standard DT believes a separate compliance group such as the Compliance Subcommittee should do this task. The Standard Drafting Team strongly believes the compliance of the standards including the level of non-compliance and sanctions should be done by an independent entity and not by the body that is writing the standard.

9. Data Quality
The "Operate Within Limits" Standards do not address the "quality" of the data that is being monitored and assessed. The specification of data quality needs to be addressed, local area differences, sign notation, multipliers (format, timeframe, quality). Example: From a Compliance perspective that RAs and BAs may have sign conventions that are opposite and there will be challenges to who is right and who is wrong. Who is king — who determines the quality of the

data? Note: In "Operate Within Limits" Draft Standard the following language is used: "Industry accepted format, timeframe, quality" — who defines these criteria?

10. Timelines for Standards Parameters
The timelines for all of the standards requirements, expected performance / outcomes, measures, compliance factors, etc., need to be defined. Factors that play into this issue are data retention requirements, reporting criteria, auditing criteria, etc. — who defines these criteria?

11. Quality of Tool Accuracy
The state estimator or tool used to perform monitoring and analysis in order to meet this standard and future standards needs to have an "accuracy" criteria. This standard does not address this issue. Does it need to be captured somewhere? If so, then where is the "accuracy" criteria captured? – Who defines "consistent" and "accuracy" criteria?

12. Contingency Criteria
When evaluating the need for requirements concerns arose regarding contingency analysis, N-1, levels of non-conformance, etc. — specifically tests of severity for each parameter. This concern was raised from a Compliance point of view. - Who defines these criteria?

13. Compliance Monitor
In cases where a RA (e.g. RTO) has geographical boundaries in more than one RRO, what criteria is used to identify which Compliance Monitor (i.e. regional perspective) the respective RA (e.g. RTO) will comply with. It is not clear if the most restrictive or least restrictive Compliance Monitor (RRO) requirements will be followed. How are RAs in multi-RROs to develop standards that are consistent with each RRO directives?

14. Link to other SAR and SDT efforts.
Several comments made by the OWL Standard DT require further definition and possible modifications to the "Determine Facility Ratings System Operating Limits and Transfer Capability" SAR effort and may require a subset of each group to collaborate via conference call or meeting. There will be future instances where one group's progress is impacted and inhibited by another SDT. How does the SDT address such instances? What does the Standards Process Manual instruct the SDTs to do? Is a revision needed?