NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

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

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

January 7–8, 2003
New Orleans, Louisiana

Meeting Minutes

The initial meeting of the "Monitor and Assess Short-term Reliability — Operate Within Transmission System Limits" Standard Drafting Team (OWL Standard DT) was held on January 7–8, 2003 in New Orleans. The meeting announcement, agenda, and attendance list are attached as **Exhibits A, B,** and **C** respectively.

OWL Standard DT Chairman Ed Riley presided. Standard DT Secretary Tom Vandervort reported that a quorum was present.

Introductions

Chairman Riley welcomed the OWL Standard DT members and thanked them for their participation.

Purpose, Responsibilities, and Goals

Standards Process Manager, Maureen Long gave a presentation on the purpose of the standards process, the responsibilities of the standard drafting team members, and the goals for the team. Ms. Long emphasized the need for clean non-ambiguous language in the standard. Entities responsible for performing different functions within the standard must be included in the NERC Functional Model (previously known as the Reliability Model).

Reliability Requirements and Compliance Requirements

The OWL Standard DT began the standard drafting process by reviewing the Monitor and Assess Short-term Reliability — Operate Within Transmission System Limits SAR (OWL SAR). The SAR, being the basis for the standard, was continuously referred to and used as the basis for each aspect of the standard.

The Operate Within Limits Standard "Purpose" was developed from the SAR Purpose. The Purpose states: 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.

The Standard DT developed ten requirements for the standard based on the OWL SAR. Each requirement captures the following parameters:

- Requirement Number

- Measure(s)
- Expected Performance or Outcomes
- Specific Data/Information Required to Measure Performance or Outcomes
- Entity Responsible to Provide Data/Information for Measuring Performance/Outcomes
- Entity Responsible for Evaluating Data/Information to Assess Performance/Outcomes
- Process Used to Evaluate Data/Information for the Purpose of Assessing Performance/Outcomes (Self-certification or other process)
- Frequency of Measuring Performance (Periodic reporting, spot reporting, exception reporting, periodic reviews, triggered investigations)
- Time Period in which Performance/Outcomes in Measured, Evaluated, and then Reset
- Measurement data retention requirements and assignment of responsibility for data archiving
- Levels of Non-compliance (Defines the levels of non-compliance for each measure, typically based on the actual or potential severity of the consequences of non-compliance.)
- Sanctions (Defines all penalties or sanctions associated with non-compliance, typically based on level of non-compliance and number of offenses.)

The OWL Standard DT was not able to complete all of the parameters for each of the ten requirements due to time restraints. Another meeting was scheduled for February 6–7, 2003, to continue the standard drafting process.

Parking Lot Issues

The OWL Standard DT identified a number of issues and concerns that could not be answered by the team. The "Parking Lot Issues" will be forwarded to the NERC Standards Director for evaluation and to be given to the proper subcommittee, group, task force or individuals to address. The OWL Standard DT will collaborate with other parties to address those concerns (i.e. standard definitions) as requested by the NERC Standards Director. (**Exhibit D)**

Potential Issues for Other Standard Drafting Teams

The OWL Standard DT found that having someone, in our case more than one individual, familiar with current NERC and regional compliance programs to be very valuable to our effort. The OWL Standard DT recommends NERC and the SAC assign at least two Compliance representatives to each future Standard Drafting Team.

Future Meeting

The OWL Standard DT will continue drafting the standard in accordance with the NERC Reliability Standard Process Manual. Only one future meeting is scheduled at this time.

- Thursday, February 6, 2003 — 8:00 a.m.–5:00 p.m.
  Friday, February 7, 2003 — 8:00 a.m.–5:00 p.m.
  Charleston, South Carolina

Exhibit A

-----Original Message-----
From: Glenda Rodriguez
Sent: Monday, December 16, 2002 10:51 AM
To: opwinlimsdt@nerc.com
Subject: January Meeting Details

This email was sent to the opwinlimsdt List Serve

TO: Monitor and Assess Short-term Transmission Reliability - Operate Within Limits

Dear Members:

Details follow for your Jan. 7-8, 2003 meeting:

Omni Royal Orleans Hotel
621 St. Louis Street
New Orleans, LA 70140
Phone: 504-529-5333
Fax: 504-529-7037

Meeting Schedule:

Tuesday, January 7, 2003: 8 a.m. to 5 p.m.
Wednesday, January 8, 2003: 8 a.m. to noon.

Rooms are blocked the nights of January 6-7, 2003 for a rate of $129 single/double. The cut-off date for sleeping rooms is Tuesday, December 31, 2003. Check in time is 4 p.m. and check out is 12 p.m. You must make your reservations by the cut-off date -- NERC is charged higher rates if the rooms blocked are not picked up by this date.

Airport Shuttles run from New Orleans International Airport to The Omni Royal Orleans Hotel.
Airport shuttle service: $11.00 (approx) each way
Taxi: $28.00 (approx) each way

When making your hotel reservations, please make sure to mention "North American Electric Reliability Council/NERC Meeting" so your reservation is credited to our room block. A penalty may be charged to NERC if the total rooms blocked for this event are not picked up. Please inform us immediately if you are unable to attend. Also, if you are using an agency for your travel plans, make sure they mention NERC. Please let me know if you have any questions.

Sincerely,

Rocio Wong
Meeting Coordinator
North American Electric Reliability Council (NERC)
Phone: (609) 452-8060
Fax: (609) 452-9550

Exhibit B

Monitor and Assess Short-term Transmission Reliability – Operate Within Limits
January 7-8, 2003 SDT Meeting in New Orleans
Agenda

January 7, 2003

0800 - 0815	Welcome and review administrative items
0815 - 0900	Review documents distributed to SDT & PPT presentation – discuss need for clean, non-ambiguous language in the standard
0900 - 1000	Draft requirements, expected performance/outcomes and measures for real-time monitoring section of standard (done as a group)
1000 - 1015	Break – reassemble in three smaller groups
1015 - 1200	Group A - Draft requirements, expected performance/outcomes and measures for short-term and real-time analyses section of standard Group B – Draft requirements, expected performance/outcomes and measures for corrective actions section of standard Group C – Draft requirements, expected performance/outcomes and measures for records and reports section of standard
1200 - 1300	Lunch
1300 - 1500	Review/edit all requirements, measures and expected performance/outcomes
1500 - 1515	Break
1515 - 1700	Draft compliance elements for real-time monitoring section of standard
1700	Adjourn

January 8, 2003

0800 - 0815	Welcome and review progress made on January 7
0815 - 1000	Group A - Draft compliance elements for analyses section Group B – Draft compliance elements for corrective actions section Group C – Draft compliance elements for records and reports section
1000 - 1015	Break
1015 – 1130	Review/edit all draft compliance elements
1130 - 1200	Discuss the need for any supporting documents associated with this standard Review draft against, “Is your Standard ready to post?” Identify action items and schedule needed to complete draft standard by Feb 1
1200	Adjourn

Exhibit C

"Monitor and Assess Short-term Reliability - Operate Within Transmission System Limits" Standard Drafting Team		
Standard Drafting Team Meeting		
New Orleans, LA January 7 - 8, 2003		
Note: Use more than one line for your data, if necessary.		
Attendee	**Phone Number**	**E-Mail Address**
Edward R. Riley	(916) 351-4463	eriley@caiso.com
Paul M. Cafone	(973) 430-5001	paul.cafone@pseg.com
Albert DiCaprio	(610) 666-8854	dicapram@pjm.com
Maureen Long	(305) 891-5497	melong@compuserve.com
Ellis Rankin	(214) 743-6825	erankin@oncorgroup.com
Gerald Rheault	(204) 487-5423	gnrheault@hydro.mb.ca
Toni L. Timberman	(360) 418-2327	tltimberman@bpa.gov
Thomas J. Vandervort	(609) 452-8060	tom.vandervort@nerc.net
Charles Waits	(734) 929-1227	cwaits@metcllc.com

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

January 7-8, 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:
Bulk Transmission
Instability
Uncontrolled Separation
Cascading Outages
Reliability
Bulk Transmission System
Short-term Monitoring

Short-term Reliability Analysis
Real-Time Monitoring
Real-Time Reliability Analysis
Operating Limits – In the West the "Operating Limits" are constantly changing. Define "Operating Limits" for the entire industry.
Critical Facility
Critical Facility Limits
Operating Limit Violation
Industry Accepted Format
Data Quality
Operating Limit Mitigation Plan
Other terms may be added as the standard development process progresses

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?